RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

'Established by Government of Central Provinces Education Department by Notification No. 513 dated the 1st of August, 1923 & presently aState University governed by Maharashtra Public Universities Act, 2016 (Mah. Act No. VI of 2017)

DIRECTION NO. 35 OF 2024

DIRECTION GOVERNING THE EXAMINATION LEADING TO THE DEGREE OF MASTER OF COMMERCE (AS PER NEP 2020) EXAMINATION UNDER FACULTY OF COMMERCE AND MANAGEMENT

Whereas, The Maharashtra Public Universities Act, 2016 (VI of 2017) has come in to force from 1st March 2017;

AND

Whereas, Rashtrasant Tukadoji Maharaj Nagpur University (hereinafter "the University") is now being governed by The Maharashtra Public Universities Act, 2016 (VI of 2017) (hereinafter the Act);

AND

Whereas, in the meetings of Board of Studies held on 4th July 2023 of M.Com., M.Com. (Professional), M.I.R.P.M. AND M.C.M, a committee was constituted to restructure the above programmes in tune with National Education Policy 2020, including the change in the names of the programmes. The said committee has submitted the draft scheme of examinations, syllabus and other details of these programmes including On Job Training (OJT), Community Engagement Project (CEP) and Research Projects (RP) to be introduced in the various Semester of the restructured programmes on 14.7.23;

AND

Whereas, on behalf of the Faculty of Commerce and Management and the Academic Council, Vice Chancellor has accepted the draft submitted by the committee of the Board of Studies on 17.7.23 and the Notification to that effect was issued on 17th July 2023;

AND

Whereas, as per the National Education Policy 2020 and scheme of Nomenclature of the programmes of the University Grants Commission, 2014, the nomenclature and scheme of examination and other details of the erstwhile degrees of M.Com (Professional), M.I.R.P.M., M.C.M. are now changed as per the report of the committee constituted for the same and a new structure of M.Com. with majors in ACCOUNTING AND TAXATION, BUSINESS STUDIES, COMPUTER MANAGEMENT, AND INDUSTRIAL RELATIONS is introduced;

AND

WHEREAS, to introduce a new programme or to incorporate the new scheme, Ordinance is required to be issued, but Ordinance making involve a time taking process.

AND

Whereas, Direction no. 37/2023 was issued to incorporate above scheme, the said Direction in now lapsed as per the provisions of the Section 12(8) of the Act, as same couldnot be conveted into an Ordinance within six months form the date of its issuance;

AND

Whereas, it is therefore now necessary to issue another Direction incorporating the provisions of said lapsed Direction with certain modification as to the inclusion of Absorption Scheme for the students of previous/old of earlier schemes;

Now, therefore, I, Dr. Prashant S. Bokare, Vice-Chancellor, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur recognising the urgency of the matter, in exercise of the powers vested in me under Section 12(8) of the the Maharashtra Public Universities Act, 2016 do hereby issue the following direction:

1. This direction shall be called "DIRECTION GOVERNING THE EXAMINATION LEADING TO THE DEGREE OF MASTER OF COMMERCE (AS PER NEP 2020) EXAMINATION UNDER FACULTY OF COMMERCE AND MANAGEMENT".
2. This Direction shall come into force from the academic session 2024-25.
3. **INTERPRETATION CLAUSE**: In this direction, unless the context requires otherwise the words, phrases and abbreviations used shall have the following meaning:
   a. **"Academic Council"** means the Academic Council of the R T M Nagpur University, Nagpur
   b. **"ATKT"** refers to Allowed to Keep the Term in higher semester
   c. **"Board of Studies"** means Board of Studies for various subjects of commerce in the faculty of Commerce and Management in the University.
   d. **"CC"** means Co-curricular Courses
   e. **"CIE"** means Continuous Internal Evaluation which refers to the internal assessment of students conducted at the college concerned.
   f. **"Competent Authority"** (for admission purpose) means an "Authority" established or assigned the duty to regulate admissions in the course by the Government of Maharashtra or an authority constituted by the University, for this purpose.
   g. **"Credit Points"** refer to the product of No. of credits multiplied by the Grade Point for a given course/paper.
   h. **"Credit"** (C) for a course is dependent on the number of hours of instruction per week in that course, and is obtained by using a multiplier of one (1) for lecture and a multiplier of half (1/2) for practical (laboratory) hours.
   i. **"Course"** means a paper/subject (theory or practical) prescribed for any semester of the programme.
   j. **"Cumulative Grade Point Average (CGPA)"** refers to the Cumulative Grade Point Average weighted across all semesters.
   k. **"DSE"** means Discipline Specific Elective Course
   l. **"Degree"** means the Under Graduate Degree awarded after successful completion of the programme governed by this Direction.

m. **"Fees"** means the fees prescribed by the University/ Shikshan Shulka Samiti of Government of Maharashtra, for the Under Graduate programme under this Direction, from time to time.

n. **"Grade letter"** is an index to indicate the performance of a student in a particular course (Paper). It is the transformation of actual marks secured by a student in a course/paper. Grade letters are O, A+, A, B+, B, C, P, F and AB.

o. **"Grade Point"** is the weightage allotted to each grade letter depending on the range of marks awarded in a course/paper.

p. **"Graduate programme"** means Bachelors' degree programme in Commerce.

q. **"MOOC"** means Massive Open Online Course offered by SWAYAM/NPTEL or any other recognized University or Institution

r. **"SEC"** means Skill Enhancement Course

s. **"Semester Grade Point Average (SGPA)"** refers to the performance of the student in a given semester. SGPA is based on the total credit points earned by the student in all the courses and the total number of credits assigned to the courses/papers in a Semester.

t. **"Student"** means Student admitted to Bachelors degree programme in commerce under this direction.

u. **"ODL"** means Online and Distance Learning

v. **"University"** means The Rashtrasant Tukadoji Maharaj Nagpur University.

4. Details of eligibility for M.Com. semester 1 examination

A) For **M.Com. with major in 'Accounting and Taxation' and 'Business Studies'**, the student shall have passed the B. Com or B. Com with Computer Applications or BBA degree examination of Rashtrasant Tukadoji Maharaj Nagpur University or any other equivalent degree of any other recognized university;

B) For M. Com. with major in **'Computer Management' and 'Industrial Relations and Personnel Management'**, student shall have passed any degree examination of Rashtrasant Tukadoji Maharaj Nagpur University or any other recognized university;

C) The course leading to the Master Degree in Commerce being full time regular course in nature, the students enrolled for this course shall not be permitted to join any other course in offline mode in this University or any other University simultaneously.

5. Change in Nomenclature for MCM, MIRPM and M. Com. (Professional) programs

Nomenclature of MCM, MIRPM and M. Com. (Professional) programs are changed to M. Com. programs. However, colleges offering any of these programs will be allowed to admit students to M. Com. programs by offering following 'Major' subjects:

Old Nomenclature	New Nomenclature	Availability of 'Major' subject
M. Com.	M. Com. (with Major Subject)	Accounting and Taxation Business Studies Computer Management Industrial Relations and Personnel Management
M. Com. (Professional)	M. Com. (with Major Subject)	Accounting and Taxation Business Studies Computer Management Industrial Relations and Personnel Management
M. C. M.	M. Com. (with Major Subject)	Computer Management
MIRPM	M. Com. (with Major Subject)	Industrial Relations and Personnel Management

6. **Duration of the Program, student progression path and provisions for Multiple Entry and Exit**
   a. Duration of the M. Com. Program shall be TWO years with the provision for multiple exit as mentioned here:
      a. A student can exit the program after successful completion of 1st and 2nd semesters having earned requisite number of credits as mentioned in the scheme of examination. Such a student shall be eligible for the award of 'Post Graduate Diploma in Commerce' with a major by the University.
      OR
      a student can continue the program in 2nd year in order to become eligible for the award of 'Master of Commerce' degree with a major subject by the university.
   b. Re-entry or Lateral Entry
      a. Students, opting for exits at any level, will have the option to re-enter the programme from where they have left off, in the same or in a different higher education institution within three years of exit and complete the degree programme within the stipulated maximum period of SEVEN years from the date of admission to first year.
      b. Re-entry at various levels for lateral entrants in academic programmes shall be based on the earned and valid credits as deposited and accumulated in the Academic Bank of Credits (ABC) through Registered Higher Education Institutions and proficiency test records.
      c. Lateral entry into the programme of study leading to the UG Diploma / Three Year UG Degree / Four Year Bachelor's Degree with Honours/Research will be based on the validation of prior learning outcomes achieved and subject to availability seats based on intake capacity.

Eligibility for Award of Certificate/Diploma/Degree/Honours or Research Degree

Semester Completion	No. of Minimum Credits Required	Additional Credit Requirement	Eligible For
I and II	40	Nil	Post Graduate Diploma in Commerce with Major
III and IV	82	Nil	Master of Commerce Degree with Major

7. **Selection of 'Major' Subject**
   A student admitted to this program is required to select any one of the following subjects as 'Major' subject to the availability of a particular subject in a particular college and is required to undergo and successfully complete the 'Core' and 'Elective' courses as mentioned in the scheme of examination of the selected 'Major' subject.

8. **Availability of 'Major' and 'Intake Capacity'**
   All colleges affiliated to the University for offering **Master of Commerce (M. Com.)** Program/s in the Faculty of Commerce and Management shall adhere to the following:

Affiliated Program	Sanctioned Intake	'Major' to be offered
M. Com.	As approved by the University	• Accounting and Taxation • Business Studies • Industrial Relations and Personnel Management • Computer Management

NOTES:

- Total intake capacity for the program as approved by the university shall remain the same and be divided amongst the 'Major' subjects allowed for M. Com. program.
- The COLLEGE may offer a particular 'Major' subject depending on the availability of students and teachers.
- The COLLEGE is not expected to force any student to opt for a particular subject where a choice is provided in the scheme of examination.
- Nomenclatures for MCM, MIRPM and M. Com. (Professional) programs have been restructured as M. Com. and the intake for all these programs shall be as per M. Com. i. e. 80 students per section.
- Tuition Fees and Examination Fees for **'Computer Management' and 'Industrial Relations and Personnel Management'** major subjects shall be as per fees for **MCM and MIRPM** programs respectively as prescribed by the university.

9. All colleges affiliated to the University offering M. Com. Program are required to put up a list of 'Major' and subjects it is offering on the Notice Board as well as on the website of the college to make students aware about the availability of subjects. Moreover, colleges are expected to define and display the 'Standard Operating Procedures' for the college staff members and students to facilitate the process of selecting 'Major' subjects.

10. In pursuance with the National Education Policy 2020 and a Government Resolution No. NEP-2022/प्र.क्र.09/विशी-3/शिकाना dated 16th May 2023 issued by the Government of Maharashtra, the credit framework for M. Com. Program shall be as mentioned in **Annexure – I.**

11. M. Com. Program Outcomes

a. Apply knowledge of theories and procedures related to accountancy, economics, management, and other allied areas to solve problems of business organizations.
b. Foster Analytical and Critical thinking abilities for data-based decision making
c. Ability to develop Value Based Leadership ability
d. Ability to understand, analyze and communicate global, economic, legal, and ethical areas of business
e. Ability to lead themselves and others in the achievement of organizational goals, contributing effectively to a team environment.

12. Research Methodology Course:

'Research Methodology' is a compulsory course and the curriculum and evaluation pattern is common for all 'Major Subject' **(Annexure – IV)**

13. Evaluation Scheme for OJT/FP/CEP and RP

A student of M. Com. Semester – II has to compulsorily undergo 'On Job Training' during a summer second semester. A 'Field Project' or 'Community Engagement Project' of same duration shall be considered as equivalent to OJT.

Similarly, a student of M. Com. Semester – III and IV is required to undertake a 'Research Project'.

Scope of these courses and their detailed evaluation scheme is appended in **Annexure – III.**

14. Teaching and Examination Scheme

Teaching and Examination Schemes for all available 'Major' subjects for Master of Commerce (M. Com.) degree are appended in **Annexure – II.**

15. Grade Conversion Table and Computation of SGPA and CGPA

Grade Conversion Table (Theory)

SN	Letter Grade	Grade Point	Mark Range	Performance
1	O	9.00 - 10.00	90 – 100	Outstanding
2	A+	8.00 - < 9.00	80 - < 90	Excellent
3	A	7.00 - < 8.00	70 - < 80	Very Good
4	B+	6.00 - < 7.00	60 - < 70	Good
5	B	5.50 - < 6.00	55 - < 60	Above Average
6	C	5.00 - < 5.50	50 - < 55	Average
7	P	4.00 - < 5.00	40 - < 50	Pass
8	F	Below 4	Below 40	Fail
9	AB	0	-	Absent

Grade Conversion Table (Practical)

SN	Letter Grade	Grade Point	Mark Range	Performance
1	O	9.00 - 10.00	90 – 100	Outstanding
2	A+	8.00 - < 9.00	80 - < 90	Excellent
3	A	7.00 - < 8.00	70 - < 80	Very Good
4	B+	6.00 - < 7.00	60 - < 70	Good
5	B	5.50 - < 6.00	55 - < 60	Above Average
6	P	5.00 - < 5.50	50 - < 55	Pass
7	F	Below 5	Below 50	Fail
8	AB	0	-	Absent

Computation of SGPA & CGPA:

The UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e

$$SGPA\ (Si) = \Sigma(Ci \times Gi) / \Sigma Ci$$

where Ci is the number of credits of the ith course and Gi is the grade point scored by the student in the ith course.

ii. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$CGPA = \Sigma(Ci \times Si) / \Sigma Ci$$

where Si is the SGPA of the ith semester and Ci is the total number of credits in that semester.

iii. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

iv. CGPA to Percentage (%) conversion formula:

Percentage (%) = (CGPA) * 10

16. Credit Specifications:

a. Theory/Tutorial Courses: One hour/credit/week (a minimum of 15 hours of teaching per credit is required in a semester.

b. Laboratory/Performance Based Courses: A minimum of 30 hours in laboratory or Performance Based activities is required in a semester. Performance based activities include Studio activities, Workshop based activities, internship, Apprenticeship, Field based learning, community engagement learning, etc.

c. Each semester will consist of at least 15 weeks of Academic Work equivalent to 90 actual teaching days.

17. Assessment

- The final total assessment of examinees shall made in terms of Continuous Internal Assessment (CIE) for 20% component and Session End Examination (SEE) for 80% component for each THEORY course mentioned in the scheme of examination.
- 'On Job Training/SIP' being a PRACTICAL course shall be assessed at college/department level as per the 'Evaluation Rubrics' mentioned in **Annexure – III.**
- 'Research Project' being a PRACTICAL course shall be assessed at college/department level as per the 'Evaluation Rubrics' mentioned in **Annexure – III.**
- Expected Performance Based Activities shall consist of the following: (a) Group Discussion (b) Seminars (c) Power Point Presentations (d) Elocution (e) Debate (f) Role Play (g) Case Studies (h) Educational Games. The teacher is expected to undertake a minimum of four of the aforesaid activity.

Continuous Internal Assessment

1a	Attendance of the student during a particular semester	05 Marks
1b	An assignment based on curriculum to be assessed by the teacher concerned	05 Marks
1c	Subject wise class test or Performance Based Activities conducted by the teacher concerned	10 Marks
1	**Continuous Internal Evaluation Total marks**	**20**

- The CIE marks will be communicated to the University at the end of each semester, but before the semester end examinations / as instructed by the university. These marks will be considered for the declaration of the results.
- The record of CIE marks, evaluation & results should be maintained for a period of one year by the respective institute/college for verification by the competent authority.

18. Attainment of Course Outcomes

a. Continuous Internal Assessment shall be carried out at college/department level in such a way that the attainment of prescribed learning outcomes can be measured. The college/department concerned is required to define evaluation rubrics for 'Performance Based Activities' conducted for CIE.

b. Semester End Examinations are conducted by the university. The question papers for these examinations are required to be set in such a way that the attainment of prescribed learning outcomes can be measured.

19. Standard of Passing

The scope of the subject, percentage of passing in Theory and Project and Internal Assessment will be governed as per following rules:

(i) In order to pass the Master of Commerce (M.Com.) 1st, 2nd, 3rd and 4th Semester Examinations, an examinee shall obtain not less than 40 % (Grade 4) marks in each theory

course/paper, taking CIE & SEE together. Whereas, for practical/performance-based examination an examinee shall obtain not less than 50 % (Grade 5) marks in each practical, taking CIE & SEE together. Moreover, a student is required to secure not less than 50% marks in aggregate i.e. taking all courses together in order to become eligible for the award of M. Com. degree.

(ii) An examinee who is unsuccessful at the examination shall be eligible for admission to the subsequent examinations on payment of a fresh fee prescribed for the examination together with the conditions of the ordinance in force from time to time.

(iii) The candidates who pass all the semester examinations in the first attempt are eligible for ranks.

(iv) The results of the candidates who have passed the Semester-IV examination but not passed the lower semester examinations shall be declared as NCL (not completed lower semester examinations). Such candidates shall be eligible for the Degree only after successful completion of all the lower semester examinations.

(v) The successful examinees at the M.Com. semester IV examination shall be awarded division based on CGPA as follows:

CGPA	Division
7.5 and above	1st division with distinction
6 to 7.49	1st division
5 to 5.99	2nd division

(vi) Provisions of **Ordinance No. 3 of 2007** relating to the award of Grace Marks for passing an examination, securing higher division / class and for securing distinction in subject(s) shall be applicable.

(vii) University guidelines and directions issued from time to time regarding Improvement of Results, Reassessment/Revaluation and Incentive Marks shall be applicable to M. Com. Program covered under this direction.

20. Absorption of students admitted under previous directions

The university shall continue to conduct M. Com., M. Com. (Professional), MCM and MIRPM examinations as per previous directions for THREE (i.e. SIX attempts) years to provide opportunities to failure students of these programs.

Students admitted to M. Com. / M. Com. (Professional) / MCM / MIRPM programs under previous directions (CBS and CBCS) shall be absorbed under this scheme of examination as per following guidelines:

A. Students who have passed 1st Year (1st and 2nd Semesters):

a. Students who have cleared M. Com. / M. Com. (Professional) semester – I and semester – II examinations as per previous directions (CBS and CBCS) will be allowed take admission to semester – III of M. Com. program under this direction and will be required to opt for 'Accounting and Taxation' or 'Business Studies' as major subject. Such students will be required to appear and successfully complete following courses (Puro Case):

Semester	Courses required to appear and pass (Under this Scheme)	
	Admitted to 'Accounting and Taxation' Major	**Admitted to 'Business Studies' Major****
I	Advanced Statistics OR Advanced Auditing	Organizational Behaviour
		Business Law
II	On Job Training (OJT)	On Job Training (OJT)
		Company Law
		Project Management

** Students admitted to this major will be exempted from appearing following courses/subjects under this scheme of examination:

Semester	Exempted subjects
III	Human Resources Management
	Cooperation and Rural Development
IV	Marketing Management

b. Students who have cleared MCM semester – I and II examinations as per previous directions (CBS and CBCS) will be allowed to take admission to semester – III of M. Com. program under this direction with a major subject 'Computer Management' only.
Such students will be exempted from appearing and passing 'Management Information System' subject of M. Com. (Computer Management) Semester – III examination. The Semester Grade Point Average (SGPA) of these students shall be normalised on the basis of 20 credits for 1st and 2nd semester examination while calculating final CGPA.

c. Students who have cleared MIRPM semester I and II examinations as per previous directions (CBS and CBCS) will be allowed to take admission to semester – III of M. Com. program under this direction with a major subject 'Industrial Relations and Personnel Management' only.
Such students will be required to appear and successfully complete following courses (Puro Case):

Semester	Courses required to appear and pass (Under this Scheme)
	Admitted to 'Industrial Relations and Personnel Management'' Major
I	Organizational Behaviour
II	On Job Training (OJT)

d. SGPA of 1st and 2nd semester examinations of such students will be considered while processing the final year result.

B. Students who failed in one or more subjects of 1st Year (1st and/or 2nd Semesters):

a. All such students, if eligible under ATKT rules, will be allowed to take admission to semester – III of M. Com. program under this direction as mentioned above. Provided, such students will be required to pass their backlog subjects as per old scheme of examination.

b. If any such student fails to pass any of the backlog subjects in provided attempts, such a student will be not be absorbed in this scheme of examination and will be required to take a fresh admission to 1st year of M. Com. program under this direction.

21. Rules for ATKT (Allowed to Keep the Term):

An unsuccessful examinee at any semester examination shall be **ALLOWED TO KEEP TERM as per following conditions:**

Admission to Semester	Eligibility for admission and taking University Examination
Semester – I	Candidate should have passed the qualifying examination as per the relevant Direction governing the course.
Semester – II	Candidate should have completed the term of the Ist semester and filled examination form.
Semester – III	Candidate should have completed the term of the IInd semester, filled the examination form of the same and has obtained exemption in 2/3rd passing heads of the Ist and IInd semesters taken together. (Fraction, if any to be ignored)

Semester – IV	Candidate should have completed the term of the IIIrd semester and filled the examination form of the same.

22. Abbreviations Used:

CIE: Continuous Internal Evaluation SEE: Semester End Examination

OJT: On Job Training (Internship/Apprenticeship), RM: Research Methodology, RP: Research Project

23. Provision for Transfer of Credits

The M.Com. program offered under this direction provides enhanced academic flexibility to students in terms of selecting the courses they want to learn. A student can opt for any course from any statutory/recognized University or a MOOC from SWAYAM/NPTEL in lieu of a course mentioned in this scheme of examination as 'Elective' course. The mechanism for transfer of credits earned through these courses to be adhered is mentioned here:

1. Every student is mandatorily required to create an ID on Academic Bank of Credits (ABC) and shall submit her/his ID to the college.
2. Any Course mentioned in this scheme of examination under 'Elective' can be opted out by a student for taking a MOOC from SWAYAM/NPTEL learning platform.
3. A student cannot opt out any 'Core' course.
4. If a student is willing to opt out any 'Elective' course, he/she will have to mention this while submitting the examination form to the University for respective semester.
5. A certificate of completion of such an ODL/Online course shall be submitted by the student to the University through college before end term evaluation.
6. Such a certificate shall mandatorily have the number of credits, duration of the course and grades/marks obtained by the student and shall preferably have a QR code for verification.
7. The college shall submit the grades and marks obtained by the student to the University along with Internal Assessment marks for the concerned examination.
8. If a student has opted for an ODL/Online course in a particular semester and failed to submit the certificate within prescribed time, the student will be marked for 'Absent' for a particular course in that examination. Such a student will be required to fill in the examination form in the consecutive attempt and submit the passing certificate in order to get his/her corrected result.
9. A separate guideline for 'Transfer of Credits' issued by the University will be applicable to the students of M. Com. Program from the date of its issuance.

24. Saving Clause: Students admitted to M. Com. program under Direction No. 37 of 2023 shall also be governed by this direction.

Date: 10·08·2024
Nagpur

(Dr. Prashant S. Bokare)
Vice-Chancellor

ANNEXURE – II

M.COM (ACCOUNTING AND TAXATION)
W.E.F.2023-24

Program Specific Outcomes

PSO 1	The student will be able to **apply** professional knowledge of accounting and taxation in real life business situations
PSO 2	The student will be able to **interpret and analyse** the financial statements
PSO 3	The student will be able to **demonstrate** effective oral and written business communication
PSO 4	The student will be able to **implement** traditional and modern strategies and practices of costing, management, auditing and taxation
PSO 5	**Develop** competency in students to make them employable in the accounting and taxation industry

Teaching and Examination Scheme

A teaching and examination scheme for students admitted to the M. Com. (Accounting and Taxation) Program shall be as follows:

Master of Commerce (Accounting and Taxation)
Semester I

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Advanced Financial Accounting – I		4	-	4	80	-	20	100	40	4
2.	Core	Advanced Cost Accounting		4	-	4	80	-	20	100	40	4
3.	Core	Indian Financial System		4	-	4	80	-	20	100	40	4
4.	Elective	Advanced Statistical Techniques OR Advanced Auditing OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	Research Methodology		4	-	4	80	-	20	100	40	4

				20	-	20	400	-	100	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Accounting and Taxation)
Semester II

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Advanced Financial Accounting – II		4	-	4	80	-	20	100	40	4
2.	Core	Cost Control and Analysis		4	-	4	80	-	20	100	40	4
3.	Core	Financial Analysis and Control		4	-	4	80	-	20	100	40	4
4.	Elective	Business Ethics and Corporate Social Responsibility OR Advanced Financial Management OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	On Job Training		-	8	8	-	100	-	100	50	4
				20	-	20	320	100	80	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Accounting and Taxation)
Semester III

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks	Max Marks	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total	SEE (TH) *	SEE (PR)				
1.	Core	Advanced Management Accounting		4	-	4	80	-	20	100	40	4
2.	Core	Income Tax		4	-	4	80	-	20	100	40	4
3.	Core	Special Areas in Accounting		4	-	4	80	-	20	100	40	4
4.	Elective	Operations Research OR Strategic Management OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	Research Project		-	8	8	-	100	-	100	50	4
				16	8	24	320	100	80	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student.

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Accounting and Taxation)
Semester IV

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks	Max Marks	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total	SEE (TH) *	SEE (PR)				

1.	Core	Accounting for Managerial Decisions		4	-	4	80	-	20	100	40	4
2.	Core	Business Tax Assessment and Planning		4	-	4	80	-	20	100	40	4
3.	Core	Indirect Taxes		4	-	4	80	-	20	100	40	4
4.	Elective	Human Resources Accounting OR Tax Assessment: Process and Appeals OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	Research Project		-	12	12	-	100	-	100	50	4
				16	12	28	320	100	80	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TA – Theory, CIE – Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Detailed Syllabus

M.Com. (Accounting and taxation) First Year Semester – I
Course Type: Major Course
Course Name: **Advanced Financial Accounting – I**
Course Code ----

Course Outcomes

CO1	Student will be able to gain knowledge about Computer Software Accounting, and will be able to amount of Insurance claim.
CO2	Student will be able be aware of Hire Purchase system and installment system.
CO3	To develop competency of students to solve problem in accounting for Service Sector.
CO4	To develop competency of students to solve problem in accounting for non-profit organization.

Unit - I

COMPUTER SOFTWARE ACCOUNTING.

Company Statutory Records, Statutory Books of Accounts & Registers.Statutory Reports Corporate Governance. (Theory)

FIRE INSURANCE CLAIMS – Poor Selling Live Goods, Including Loss of Profit Policies (Numerical)

Unit - II

HIRE PURCHASE ACCOUNTING:

Meaning of Hire purchase Accounts, Special Feature, Merits and Demerits, Accounting Arrangement of Hire Purchase Transaction, Re-possession; Partial Re-possession and Complete Repossession Hire Purchase, stock and Debtors Method (Theory & Numerical)

Unit - III

SERVICE SECTOR ACCOUNTING

A) Hotel accounting – Introduction –Visitor's ledger.
B) Hospital accounting – Introduction –Capital and revenue expenditure OPD & IPD Register.
C)Transport Undertaking – Preparation of final accounts of Roadways. (Theory & Numerical)

Unit - IV

ACCOUNTING FOR NON-PROFIT ORGANIZATION

Non-profit Entities, Characteristics of a Non-profit Organization, Accounting Procedures, Terminology Used in Accounts of Non-Profit Organizations, Source of Income of Non-profit Organization, Fund Base and Non Fund Based Accounting. (Theory & Numerical)

Books Recommended:-

1) Gupta R. L. – Advanced Financial Accounting – S. Chand & Sons
2) Kumar, Anil S. – Advanced Financial Accounting – Himalaya Publication House
3) Shukla and Grewal : Advanced Accounts (S. Chand & Ltd. New Delhi)
4) Jain and Narang : Advanced Accounts (Kalyani Publishers, Ludhiana)
5) Sr. K. Paul : Accountancy, Volume –I and II (New Central Book Agency, Kolkata)
6) R. K..Lele and Jawaharlal : Accounting Theory (Himalaya Publishers)
7) Dr. L. S. Porwal : Accounting Theory (Tata McGraw Hill)
8) Financial Accounting A. Mukherjee, M. Hanif (McGraw Hill)

Question Paper Pattern
Advanced Financial Accounting

Time: 3 Hrs			Max. Marks: 80
Notes: 1. All questions are compulsory 2.All questions carry equal marks			
Question No.	Unit	Nature of Question	Marks
1	1	A. Theory/Problem B. Problem OR C. Problem	08 08 16
2	2	A. Theory/Problem B. Problem OR C. Problem	08 08 16
3	3	A. Theory/Problem B. Problem OR C. Problem	08 08 16
4	4	A. Theory/Problem B. Problem OR C. Problem	08 08 16
5	1 2 3 4	A. Theory/Problem B. Theory/Problem C. Theory/Problem D. Theory/Problem	04 04 04 04

M.Com. (Accounting and Taxation) First Year Semester – I
Course Type: Major Course
Course Name: **Advanced Cost Accounting**
Course Code ----

Course Outcomes

CO1	Student will be able the gain knowledge about classification of cost, methods and techniques, and student will be able to calculate the cost of goods.
CO2	To familiarizes the student for process account.

CO3	Student will be able to calculate the profit on contract.
CO4	Student will be able to evaluate the reconciliation of cost and Financial Accounting

Unit - I

COST ACCOUNTING

Overview of basic concepts in Cost Accounting - Element of Cost: Material, Labour and Overheads. - Material: Purchase procedure, storage and Inventory control. (Theory)
Preparation of Statement of Cost and Profit, Production Account, Estimate, Tenders or Quotations. (Numerical)

Unit - II

PROCESS ACCOUNTS

Introduction - Features of process, Concept of Process Loss, Abnormal Loss, Normal Loss, Abnormal Gain. And Computation of Joint Product, equivalent Unit production and inter process. profit. (Theory & Numerical)

Unit - III

CONTRACT COSTING:

Profit on Complete and incomplete contract, contract running for more than one year, two to three contracts running simultaneously, contract near to completion (Theory & Numerical)

Unit - IV

COST BOOK KEEPING

Cost Book Keeping and Reconciliation between Cost and Financial Accounts: Cost Book-Keeping, Cost Ledgers, Interlocking and Integral Accounts, Reconciliation of Cost and Financial Accounts, Reasons, needs, Methods. (Theory & Advance Numerical)

Books Recommended: -

01 Cost Accounting-Principles & Practices Jawahar Lal & Seema Shrivastawa Tata Mcgraw Delhi

02 Advanced Cost Accounting and Cost Systems Ravi M Kishor: Taxmann New Delhi

03 Cost Accounting Theory and Problems S. N. Maheshwari Mittal Shree Mahavir Book Depot. Delhi

04 Advanced Cost Accounting Jain and Narang Kalyani Publication New Delhi

05 R.S.N.Paliai,VBhagavathi–CostAccounting–S.Chand,NewDelhi

06 Cost Accounting-Principles & Practices Dr.M.N. Arora Vikas Publishing House New Delhi

07.JainS.P.– AdvancedCostAccounting–KalyaniPublication

08. Gawada,J.Made–AdvancedCostAccounting–HimalayaPublicationHouse

Question Paper Pattern
Advanced Cost Accounting

Time: 3 Hrs			Max. Marks: 80
Notes: 1. All questions are compulsory			

2.All questions carry equal marks			
Question No.	Unit	Nature of Question	Marks
1	1	A. Theory/Problem B. Problem OR C. Problem	08 08 16
2	2	A. Theory/Problem B. Problem OR C. Problem	08 08 16
3	3	A. Theory/Problem B. Problem OR C. Problem	08 08 16
4	4	A. Theory/Problem B. Problem OR C. Problem	08 08 16
5	1 2 3 4	A. Theory/Problem B. Theory/Problem C. Theory/Problem D. Theory/Problem	04 04 04 04

M.Com. (Accounting and Taxation) First Year Semester – I
Course Type : Major Course
Course Name : Indian Financial System

Course Code ---

Course Outcomes

CO1	Students will be able to understand various components of Formal Financial System
CO2	Students will be able to acknowledge the definition of Banking and creation of money banking System.
CO3	Students will be able to understand the basics of Insurance and components related to it.
CO4	Students will have the knowledge of process of creating funds in Capital Market.

Unit I: COMPONENTS OF FORMAL FINANCIAL SYSTEM-

Structure & Functions of Financial system, Nature and role of financial institutions and financial markets, financial system and economic growth. Money Markets - Overview of money markets, functions & operations, instruments, Treasury Bills and types, Commercial papers, Commercial bills, Call money market, Money market intermediaries, Money markets and monitory policies in India.

UNIT II: BANKING -

Definition, creation of money, Present structure of commercial banking system in India, Brief history; functions, Forms of banking Managerial functions in banks. Management of deposits and Advances, Lending practices, types of advances, principles of sound bank lending, preparation of reports, Limits of credit, bank investments, Liquidity and profitability, government securities, Management of Bank Finance - Bank Accounts, Records, Reports, Statement of advances, Evaluation of loan applications, ALM and NPA Management. Fee based Vs. Fund based services, Types of fee based services offered, merchant banking services. Role of Technology in Banking services Innovation.

UNIT III: INSURANCE:

Insurance Basics, Insurance Vs. other savings and investment options, tax benefits , life cycle need solutions, customer needs and available products. Life Insurance Products - Traditional and Unit linked policies, individual and group policies, with profit and without profit policies, Different type of insurance products, Medi-Claim and health insurance products - Salient features, procedures involved in claim settlement. General Insurance Products - Different types of products available in the market, Salient features. LIC – Constitution, objectives and functions. Role of IRDA in regulating the industry. Product Portability.

UNIT IV: CAPITAL MARKETS –

History of Indian capital markets, Reforms in capital markets, Primary Markets – functions, free pricing, book building, Secondary Markets – Organization, membership, Functions and management of stock exchanges, functioning of BSE, NSE, OTCEI, ICSEI. Internet trading. Mutual fund, objectives, functions, salient features. Regulatory Bodies & services: SEBI – Organization, powers and functions, Investor protection measures, achievements, RBI – objectives, organization, role, fiscal & monetary policy, Pension fund authority, CRISIL, SHCIL- objectives & functions. EXIM bank, Foreign Exchange Markets, Currency transactions; Foreign Exchange Risk. Types of risks. Risk management.

BOOKS RECOMMENDED

1. Principles of Bank Management by Vasant Desai, Himalaya Publishing house,
2. Insurance & Risk Management , Dr P. K. Gupta. Himalaya Publishing House
3. Indian Financial System by Bharti V. Pathak, Pearson education
4. Financial Markets & Services, E. Gordon &K.Natarajan, Himalaya Publishing
5. Indian financial system , M Y Khan, Tata McGraw hill
6. Indian financial system, P Bezborah, R Singh, Kalyani pub
7. Indian financial system, K Gupta, N Aggarwal, Kalyani publication
8. Bhartiya Vitteeya Vyavastha,Dr.Arvind Shende, Dr.Devendra Mohture, Anuradha Prakashan, Nagpur

Question Paper Pattern
Indian Financial System

Time: 3 Hrs			Max. Marks: 80
Notes: 1. All questions are compulsory 2.All questions carry equal marks			
Question No.	Unit	Nature of Question	Marks
1	1	A. Theory B. Theory OR C. Theory	08 08 16
2	2	A. Theory B. Theory OR C. Theory	08 08 16
3	3	A. Theory B. Theory OR C. Theory	08 08 16
4	4	A. Theory B. Theory OR C. Theory	08 08 16
5	1 2 3 4	A. Theory B. Theory C. Theory D. Theory	04 04 04 04

M.Com. (Accounting and Taxation) First Year Semester - I
Course Type: Elective Course
Course Name: **Advanced Statistical Techniques**
Course Code ----

Course Outcomes

CO1	Students will develop an understanding of basic Statistical decision making and analyze the significance.

CO2	Students will be able to understand Statistical quality control and will also be able to draw association of attributes and F test.
CO3	Students will be able to understand Analysis of time series and will also be able to calculate probability.
CO4	Student will be able to perform regression analysis, interpolation and also know their usages.

Unit I

1. Statistical decision: - decision environment – Decision Making Under risk and certainty and utility theory.
2. Sampling and test of significance: - Large and small samples, Test of significance: Chi square test 'T' test and Z test.

Unit-II

1. Statistical quality control: Causes Variations in quality characteristics types of quality controls charts, production controls acceptance sampling.
2. Association of Attributes consistency of data, Two and three attributes analysis of Variances F test.

Unit-III

1. Analysis of time series, components importance, measurement of trend, the graphical method semi average method and moving average method.
2. Probability: Laws of probability, simple and compound probabilities, permutation and combination

Unit –IV

1. Regression analysis.
2. Interpolation and Extrapolation: - Newton's Method, Binomial method and Langrage's Method

List of Reference Books:-

1. Fundamentals of statistics : D. N. Elhance&VeenaElhance
2. Statistices : V. K. Kapoor – S. Chand & Sons
3. Statistics : B. New Gupta – SahityaBhavan Agra
4. Statistics Methods : S.P. Gupta – S. Chand & Sons
5. Fundamental of Statistics: S. C. Gupta – Himalaya Publishing House
6. Business Mathematics & Statistics: NEW Nag & S.C. Chanda – Kalyani Publishers
7. Problem in statistics: Y. R. Mahajan - Pimpalapure Published Nagpur.
8. Advanced Statistical Method: Dr. V.R. Bagde, Dr. Pramod Fating, Dr. Milind Gulhane

Question Paper Pattern
Advanced Statistics

Time: 3 Hrs			Max. Marks: 80
Notes: 1. All questions are compulsory 2.All questions carry equal marks			
Question No.	Unit	Nature of Question	Marks
1	1	A. Theory/Problem B. Problem OR C. Problem	08 08 16
2	2	A. Theory/Problem B. Problem OR C. Problem	08 08 16
3	3	A. Theory/Problem B. Problem OR C. Problem	08 08 16
4	4	A. Theory/Problem B. Problem OR C. Problem	08 08 16
5	1 2 3 4	A. Theory/Problem B. Theory/Problem C. Theory/Problem D. Theory/Problem	04 04 04 04

M.Com. (Accounting and Taxation) First Year Semester – I

Course Type : Elective Course

Course Name : ADVANCED AUDITING

Course Code :—

Course Outcomes

CO1	To impart knowledge of Auditing such as Audit programs, Vouching, Verification, and Valuation.
CO2	To understand the significance of using computers in the Audit program.
CO3	To provide hands-on training in Auditing of a Limited Company.
CO4	To understand the Management Audit and different firms Audit

Unit - I

INTRODUCTION TO AUDITING

Auditing concepts, Basic principles governing an Audit, Relationship of auditing with other disciplines, Audit Program, Vouching, Verification and Valuation.

Unit - II

AUDIT OF LIMITED COMPANIES

Preliminaries to the Audit of a limited company, Audit of share capital transactions, Debentures and other transactions, Audit report with special reference to CARO 2003, Profit and divisible profit, Dividends, Investigation.

Unit - III

AUDIT UNDER COMPUTERIZED INFORMATION SYSTEM ENVIRONMENT

Special Aspects of Computerized Information System Audit Environment, Need for Review of Internal Control, Use of Computers for Audit Process, Audit Tools, Test Packs, Computerized Audit Program,

Unit - IV

SPECIAL CONSIDERATIONS IN

Government audit, Miscellaneous Audits, Audit of a sole trader, Audit of a firm, Audit of a small company, Audit of educational institutions, Audit of Hospital, Audit of Club, Audit of Hotels, Audit of Insurance Company, Audit of Banks.

Books Recommended: -

- Aruna Jha: Students Guide to Auditing and Assurance, Taxman Publication, New Delhi
- S.D. Sharma: Auditing Principle and Practice, Taxman Publication, New Delhi
- Dr. Arvind shende, Auditing-Anuradha Prakashan, Nagpur.
- L. N. Chopde, Auditing – Sheth Publishers
- Dr. K. R. Dixit: Auditing – Vishwa Publishers

Question Paper Pattern
Advanced Auditing

Time: 3 Hrs			Max. Marks: 80
Notes: 1. All questions are compulsory 2.All questions carry equal marks			
Question No.	Unit	Nature of Question	Marks
1	1	A. Theory B. Theory OR C. Theory	08 08

			16
2	2	A. Theory B. Theory OR C. Theory	08 08 16
3	3	A. Theory B. Theory OR C. Theory	08 08 16
4	4	A. Theory B. Theory OR C. Theory	08 08 16
5	1 2 3 4	A. Theory B. Theory C. Theory D. Theory	04 04 04 04

M.COM (BUSINESS STUDIES)

W.E.F. 2023-24

Program Specific Outcomes

PSO 1	Develop necessary professional knowledge and skills in in various functional areas of business and commerce

PSO 2	Demonstrate the ability to apply various theories of business management to solve business problems
PSO 3	Demonstrate effective oral and written business communication
PSO 4	Implement traditional and modern strategies and practices of business management, business economics and allied areas
PSO 5	Develop competency in students to make them employable in the corporate world

Teaching and Examination Scheme

A teaching and examination scheme for students admitted to the M. Com. (Business Studies) Program shall be as follows:

Master of Commerce (Business Studies)

Semester I

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Organizational Behavior		4	-	4	80	-	20	100	40	4
2.	Core	Business Laws		4	-	4	80	-	20	100	40	4
3.	Core	Managerial Economics		4	-	4	80	-	20	100	40	4
4.	Elective	Fundamentals of Financial Management OR International Business OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	Research Methodology		4	-	4	80	-	20	100	40	4
				20	-	20	400	-	100	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

3. TH = Theory, CIE= Continuous Internal Evaluation
4. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Business Studies)
Semester II

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Indian Financial System		4	-	4	80	-	20	100	40	4
2.	Core	Company Law		4	-	4	80	-	20	100	40	4
3.	Core	Project Management		4	-	4	80	-	20	100	40	4
4.	Elective	Advanced Financial Management OR Basics of GST OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	On Job Training		-	8	8	-	100	-	100	50	4
				20	-	20	320	100	80	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

3. TH = Theory, CIE= Continuous Internal Evaluation
4. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Business Studies)
Semester III

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Human Resource Management		4	-	4	80	-	20	100	40	4

2.	Core	Service Sector Management		4	-	4	80	-	20	100	40	4
3.	Core	Cooperation and Rural Development		4	-	4	80	-	20	100	40	4
4.	Elective	Agricultural Economics OR Indian Banking System OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	Research Project		-	8	8	-	100	-	100	50	4
				16	8	24	320	100	80	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Business Studies)
Semester IV

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max. Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Entrepreneurship Development		4	-	4	80	-	20	100	40	4
2.	Core	Corporate Social Responsibility		4	-	4	80	-	20	100	40	4
3.	Core	Marketing Management		4	-	4	80	-	20	100	40	4
4.	Elective	International Marketing OR Insurance Procedures and Practices OR MOOC		4		4	80	-	20	100	40	4
5.	Core	Research Project		-	12	12	-	100	-	100	50	4
				16	12	28	320	100	80	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Syllabus (Business Studies)

M.Com. Semester I

C1- Organization Behaviour

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -	
CO 1	To learn and understand Organization Behaviour theories and be able to apply them in business organization
CO 2	Compare and contrast job enlargement with job enrichment
CO 3	Evaluate roles of conflicts, power and politics in determining group behaviour
CO 4	Identify determinants of organization culture

Unit -I : Nature of Organization- Organizational Goals- Nature of Organizational behaviour- Historical evolution of organization behaviour

Unit Ii- Foundation of Individual behaviour- Personality: Concept, Theories, Determination, Personality and organization Behaviour- perception: Concept, Process, perception and organization behaviour- learning: concept, principles, learning theories and organizational behaviour- Attitudes, Values and Job satisfaction- basic motivational concepts: concept Theories- Application of concepts of motivation: job enlargement, Enrichment, Job rotation

Unit III- foundation of Group behaviour- small groups in organization- leadership: nature , theories- power and politics :Bases of power, Ethics of power and politics- communication: Channels, barriers Conflicts: concept, goals, conflict levels

Unit IV- Organizational Culture- Human resources policies and practices: job analysis, training and development, industrial relation- work stress: concept, sources of stress , coping stress- organizational changes and development- organizational effectiveness

Reference books

1. K. Aswathappa , organizational Behaviour(Himalaya publishing house, Mumbai)
2. L.M. Prasad, organizaional Behaviour (Sultan chand and sons, New Delhi)
3. Shukla , Madhukar, Understand Organizations: organization theory and practice in India (Prentice Hall, New Delhi)

Question paper pattern

Time - 3 Hrs Max. Marks -80

Q. 1 A) Unit I ---------- 8 Marks

B) Unit I ---------- 8 Marks

OR

C) Unit I ---------- 16 Marks

Q2. A) Unit II ---------- 8 Marks

B) Unit II ---------- 8 Marks

OR

C) Unit II ---------- 16 Marks

Q.3. A) Unit III ---------- 8 Marks

B) Unit III ---------- 8 Marks

OR

C) Unit III ---------- 16 Marks

Q.4. A) Unit IV ---------- 8 Marks

B) Unit IV ---------- 8 Marks

OR

C) Unit IV ---------- 16 Marks

Q.5. A) Unit I ---------- 4 Marks

B) Unit II---------- 4 Marks

C) Unit III---------- 4 Marks

D) Unit IV---------- 4 Marks

C 2 – Business Laws

Unit I-

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -	
CO 1	To learn and understand various provisions of Business laws , and its application
CO 2	Analyze the provisions of Contract Act in context of business organizations
CO 3	Analyze the provisions of Indian Negotiable Act
CO 4	Evaluate the implications of provisions of Cyber Laws

1) Indian contract Act 1872-meaning of contract, Essentials of a valid contract, proposal and its acceptance, characteristics of an offer, offer and Invitation to make an offer , Offer and intention to offer , important rules for valid offer, Revocation of Offer, Acceptance, Singes of Acceptance, Revocation of acceptance, Agreement and kinds of
Agreements, Contractual Capacity, free Consent, Misrepresentation , Mistake, lawful Consideration, Lawful object, Expressly void agreements, Contingent Contracts, Discharge or termination of contracts, Implied or Quasi contracts, consequences of Breach of contract.
Special Contracts- Contracts of Indemnity- Contracts of [illegible]-

Contracts of sailment and Pledge - Contracts of Agency

2) Patent Act-2002- Meaning, Objective and important definition, inventions not patentable, patent office and power controller, penalties.

Unit II

1) Negotiable Instruments Act 1881- meaning, presumptions, promissory note and types, bill of exchange, cheque, Types of negotiable instruments, Hundi, negotiation, endorsement, Parties to negotiable instruments and their liability, holder and holder in due course, presentment of negotiable instrument, dishonour of negotiable instrument, noting and protesting of instrument, discharge from liability.
2) Indian partnership Act-1932- Meaning of partnership, Characteristics of partnership, Partnership deed, registration of Partnership, types of partnership firms, types of partners, incoming and outgoing partners, mutual relations and rights of partners, relationship to third party of partnership firm, extension and restrictions of partners implied authority, dissolution of partnership firm.

Unit III

1) Right to Information Act-2005- Background of the Act, important
Definitions, request to get information, Central information commission, State information commission, Rights and functions of information commission,

2) Cyber law-2000 -important Definitions, Digital signature, Electronic Governance, Creation, acceptance and sending of electronic documents, Cyber appellate Tribunal, cyber-crime.

Unit IV

1) Indian Industrial Act-1948 - Need of labour legislation, important definition, approval, licensing and registration of factories provisions regarding workers health, safety, welfare, adult, women and young workers, annual leave and wages ,other provisions.

2) Workmen's compensation Act-1923- important definition, rules related to workmen's compensation, calculation of amount of compensation.

3) Environment protection Act 1986- Meaning Objective and scope, power of central government to protect and improve environment, location of industries, process and operations, offenses and penalties.

Reference Books:

1. Avtar Singh, Mercantile Law, Eastern Book Company
2. Chandra Bose, Business Laws, PHI, 2008
3. Bulchandani, Business Law for Management, 2009, Himalaya Publishing

4. Kumar, Legal Aspect of Business 1st, ed. 2009, Cengage Learning
5. Taxman's General and Commercial Laws, 2009
6. M.C. Kuchhal Business Legislation for Management 2nd ed. Vikas Publishing

Question paper pattern

Time - 3 Hrs Max. Marks -80

Q. 1 A) Unit I ---------- 8 Marks

B) Unit I ---------- 8 Marks

OR

C) Unit I ---------- 16 Marks

Q2. A) Unit II ---------- 8 Marks

B) Unit II ---------- 8 Marks

OR

C) Unit II ---------- 16 Marks

Q.3. A) Unit III ---------- 8 Marks

B) Unit III ---------- 8 Marks

OR

C) Unit III ---------- 16 Marks

Q.4. A) Unit IV ---------- 8 Marks

B) Unit IV ---------- 8 Marks

OR

C) Unit IV ---------- 16 Marks

Q.5. A) Unit I ---------- 4 Marks

B) Unit II---------- 4 Marks

C) Unit III---------- 4 Marks

D) Unit IV---------- 4 Marks

C 3 Managerial Economics

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -	
CO 1	Distinguish between the domains of micro and macro economics and their applications in business world
CO 2	Determine factors affecting demand for a particular commodity and be able to ascertain demand in a given condition
CO 3	Identify various elements of cost and relate the same with output and revenue under a given market condition
CO 4	Determine the factors causing business cycles and be able to identify the business cycle stage with given economic indicators

Unit I : Nature of Managerial economics

Meaning, definition, nature, scope and significance , Factor influencing decisions, functions, role & responsibilities of Managerial economist.

Principles of managerial decision analysis.

Macro -Micro economics- Definition, scope, merits & demerits, importance and uses, limitations, paradox of micro economics, difference between micro and macro economics.

Unit II: Demand Analysis

Theories in demand, derivation of demand, types, environment influencing demand.

Elasticity of demand- concept, meaning, types, measurement, influencing factors, importance, advertising or Promotional elasticity. Demand forecasting- meaning, definition, types, methods, importance, advantages and limitations

Unit III : Production

Concept, meaning, definition features of production, functions , law of variable productions, production with two variable inputs.

Cost analysis- concept, importance, types, real, opportunity, economic, fixed, variable, direct, indirect, Total, average, marginal cost in short run & long run curve.

Revenue- concepts, definition, types, Total average and marginal revenue with AR & MR

Unit IV: Market Structure

Concept, meaning, Classification of markets, Perfect competition

Features & price determinations , Monopoly- Features & price determinations, monopolistic competition-Features & price determinations, Pricing, price discrimination.

Business cycle- concept, definition, features, types, phases of business cycle, cobweb, Hicks, Samulson theories of trade cycle, controls of business cycle. Concept of sustainable development.

Reference Books

1. Managerial Economics, P.L. Mehta, Sultan Chand & Sons, New Delhi
2. Managerial Economics, Dwidevi, TMH
3. Indian Economics, Mishra & Puri, Himalaya Publishing House

Question Paper pattern

Time - 3 Hrs Max. Marks -80

Q. 1 A) Unit I ---------- 8 Marks

B) Unit I ---------- 8 Marks

OR

C) Unit I ---------- 16 Marks

Q2. A) Unit II ---------- 8 Marks

B) Unit II ---------- 8 Marks

OR

C) Unit II ---------- 16 Marks

Q.3. A) Unit III ---------- 8 Marks

B) Unit III ---------- 8 Marks

OR

C) Unit III ---------- 16 Marks

Q.4. A) Unit IV ---------- 8 Marks

B) Unit IV ---------- 8 Marks

OR

C) Unit IV ---------- 16 Marks

Q.5. A) Unit I ---------- 4 Marks

B) Unit II---------- 4 Marks

C) Unit III---------- 4 Marks

D) Unit IV---------- 4 Marks

E-1 - Fundamentals of Financial Management

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -	
CO 1	Determine the working capital requirement for an organization in a given situation
CO 2	Calculate Weighted Average Cost of Capital for a given Debt-Equity Mix
CO 3	Analyze the impact of capital structure on profitability of organization
CO 4	Select the appropriate investment option from a given choice to ensure maximum profit

Unit I: Financial Management: An Introduction:
Meaning, scope, objectives, and significance of financial management.

Responsibilities of financial executives, Sources of finance. (Theory)

Working Capital Management: Meaning, needs, types, Determinants of Working Capital, assessment of working capital requirement. *(Theory and Numerical)*
Leverage Analysis: Meaning and concept, types of leverages (Operating leverage, Financial Leverage, Combined Leverage). *(Theory and*

Numerical)

Unit II: Cost of Capital (Financing Decision): Cost of Capital: Meaning and concept, Significance, Factors affecting the cost of capital, cost of different sources of financing (Debt or debenture, Equity shares, Preference shares, Retained Earnings). The weighted average cost of capital. *(Theory and Numerical)*

Unit III: Capital Structure: Meaning and concept, components, principles, factors affecting the capital structure, Theories of capital structure (Net Income Approach, Net Operating Income Approach, Traditional Approach, Modigliani -Miller Approach). EBIT-EPS analysis. *(Theory and Numerical)*

Unit IV: Capital Budgeting (Investment Decision):
Meaning, features, significance, Types, difficulties in capital budgeting, meaning and Types of cash flow, Meaning and types of depreciation, Discounting of future cash flow, Discounted and Non discounted
Techniques of capital budgeting (Accounting Rates of Return, Payback

Period, Discounted payback period, Net Present Value, Profitability Index, Internal Rates of Return). *(Theory and Numerical)*

Reference Books:

1. Atrill, P; Financial Management for Non-Specialists, Prentice Hall.
2. Besant Raj. A. Corporate Financial Management, Tata McGrow Hill.
3. Block & Hirt: Foundation of Financial Management, Irwin Homewood.
4. Cooper, Kaplani and E: mastering Finance, Financial Times
5. Boltmam & Conn: Essentials of Managerial Finance, Hongnton & Mifflin.
6. Brealy, R. A. and Myers, S: The principle of Corporate Finance, McGraw Hill Internal.
7. Brigham and Ehrhardi: Financial Management- Theory and Practice, Thompson.
8. Brigham and Houston: Fundamentals of Financial Management, Thompson
9. Chandra Prasanna: Financial Management, Tata McGraw.

Question Paper Pattern

Time - 3 Hrs Max. Marks -80

Q.1- A) Unit I ----------8 marks (Theory) B)Unit I ----------8 Marks (Numeric)

OR

C)Unit I ----------16 Marks(Numeric)

Q.2- A) Unit II ----------8 marks (Theory)

B) Unit II ----------8 Marks (Numeric)

OR

C)Unit II ----------16 Marks (Numeric)

Q.3- A) Unit III ----------8 marks (Theory) B)Unit III----------8 Marks (Numeric)

OR

C)Unit III ----------16 Marks (Numeric)

Q.4- A) Unit IV ----------8 marks (Theory) B)Unit IV ----------8 Marks (Numeric)

OR

C)Unit IV ----------16 Marks (Numeric)

Q.5 A) Unit I ----------4 Marks (Theory)

B)Unit II---------- 4 Marks(Theory)

C)Unit III ---------- 4 Marks (Numeric)

D)Unit IV----------4 Marks (Numeric)

E-2- International Business

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -

CO 1	Determine factors international business environment
CO 2	Critically evaluate International Trade Theories
CO 3	Analyze impact of globalization on international business of a developing economy under a given foreign trade policy
CO 4	Evaluate the role of developing countries in Regional Economic Integration

Unit I :Concepts and Dimensions,

Concept of International Business, Difference between domestic and

International Business ,Nature and Importance of International business Introduction to International Business Environment. –Nature ,Modes of entry in International Business, Theories of International Trade., Balance of Payments.

Unit II : International Trade Theory

Absolute advantage theory, Law of Comparative advantage, Opportunity Cost Theory: Production Possibility Curve with opportunity costs and relative commodity prices basis and gains from trade under constant costs. Production Possibility Curve with increasing costs, Community Indifference Curve, Equilibrium in Isolation

Unit III

Trends in International Business · Cold War Era and Globalization- Change in Compositional significance of Trade and Foreign Direct Investment (FDI) under Globalisation - SEZs and their Significance. Foreign Exchange Market and BoP: Demand and Supply of Foreign

Exchange -- Significance of Marshall-Lerner Condition in Supply of Foreign Exchange. · International Business Operations: Global manufacturing; Global marketing management; Global human resource management, Global business citizenship.

Unit IV

World Trade Organization GATT to WTO, Functions and Principles of

WTO, WTO and Developing Countries. Dispute Settlement Mechanism. · Regional Economic Integration: Tariff and its Impact - Tariff and Non tariff Barriers to Trade - EU, ASEAN and SAARC. Recent Trade Rounds and Position of India.

Reference Books

· Chacholiades Miltiades, International Economics, McGraw Hill.

· Hill Charles WL and Jain A.K., International Business, Tata McGraw Hill. · Markusen, Melvin, Kaemfer and Maskus,, International Trade Theory and Evidence, McGraw Hill.

· Rugman and Hodgetts, International Business: A Strategic Management Approach, Pearson.

· Taggart, James, H. and McDermott Michael C., The Essence of

International Business, Prentice Hall

Question Paper Pattern

Time - 3 Hrs Max. Marks -80

Q. 1 A) Unit I ---------- 8 Marks

B) Unit I ---------- 8 Marks

OR

C) Unit I ---------- 16 Marks

Q2. A) Unit II ---------- 8 Marks

B) Unit II ---------- 8 Marks

OR

C) Unit II ---------- 16 Marks

Q.3. A) Unit III ---------- 8 Marks

B) Unit III ---------- 8 Marks

OR

C) Unit III ---------- 16 Marks

Q.4. A) Unit IV ---------- 8 Marks

B) Unit IV ---------- 8 Marks

OR

C) Unit IV ---------- 16 Marks

Q.5. A) Unit I ---------- 4 Marks

B) Unit II---------- 4 Marks

C) Unit III---------- 4 Marks

D) Unit IV---------- 4 Marks

Syllabus (Business Studies)

M.Com Semester II

C-1- Indian Financial System

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -

CO 1	Compare and Contrast roles of various components of financial system
CO 2	Analyze the role of banks with respect to credit creation and assess impact on economic development
CO 3	Assess the impact of privatisation of insurance companies on penetration of insurance products
CO 4	Evaluate the role of regulatory bodies in capital market operations

Unit I : Components of formal financial system

Structure and functions of financial structure, Nature and role of financial institutions and financial markets, financial system and economic development, pre and post scenario in financial system, reforms of financial structure , money market-nature, nature and operations of instruments, money market and Indian monetary policy

Unit II : Banking

Definition, characteristics , credit creation of banks current situation of Indian commercial banks , History of commercial banks , types of banks, Managerial functions of banks, deposits and loan management, procedure of loan, types of loan, principles of bank, limitations of credit creation , investment of bank Government securities, financial management of bank, accounts of bank, management of wealth, services of bank.

Unit III: Insurance

History of insurance , meaning and definition, importance and contribution to development, Insurance regulatory and authority Act 1999, current scenario of life insurance after privatization; Impact of privatization of insurance companies , Scope of life insurance marketing,

Nature of Insurance, policy contract, organization structure of Life Insurance corporation in India, Distribution channel of LIC of India, GIC products.

Unit IV : Capital market

Role, History, changes of capital market, primary market, stock exchange and share market and its functions, services rendered by stock exchange, Role of stock exchange in capitalize economy , listing of securities, Indian Stock market -its structure and functions. Indian Depository Act, Mutual Fund and its role in Indian Economical development, Regulatory bodies and services- SEBI, RBI, CRISIL, SHCIL, Exim bank, Foreign exchange market.

Reference Books

1. V.Avadhani, Indian capital market, First Edition, Himalaya publishing Home.
2. H.R.Machiraju, Merchant banking, third Edition, New age international publishers.
3. Ruddar Datt & K.P.M.Sundharam, Indian Economy,

Fortieth Revised Edition, S.Chand & Co.Ltd.,
4. M.Y.Khan, Indian financial system, Fourth Edition, Tata mcgraw Hill.

Question Paper Pattern

Time - 3 Hrs Max. Marks -80

Q. 1 A) Unit I ---------- 8 Marks

B) Unit I ---------- 8 Marks

OR

C) Unit I ---------- 16 Marks

Q2. A) Unit II ---------- 8 Marks

B) Unit II ---------- 8 Marks

OR

C) Unit II ---------- 16 Marks

Q.3. A) Unit III ---------- 8 Marks

B) Unit III ---------- 8 Marks

OR

C) Unit III ---------- 16 Marks

Q.4. A) Unit IV ---------- 8 Marks

B) Unit IV ---------- 8 Marks

OR

C) Unit IV ---------- 16 Marks

Q.5. A) Unit I ---------- 4 Marks

B) Unit II---------- 4 Marks

C) Unit III---------- 4 Marks

D) Unit IV---------- 4 Marks

C-2- Company Law

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -	
CO 1	Exemplify the procedure for formation of a company

CO 2	Compare and Contrast the provisions regarding issue of equity share capital with preference share capital
CO 3	Draft a notice and agenda for Annual General Meeting
CO 4	Understand provisions related to appointment of directors and auditors

Unit I

Introduction of company Act 2013, Formation of companies, public and private and one person companies, procedure for formation of company., Memorandum of association, articles of association, alteration of MOA and AOA, conversion of companies already registered., Prospectus, public offer and private placement, Shelf prospectus and red hearing prospectus, allotment of securities by the company, private placement- offer and invitation.

Unit II

Kinds of share capital, Issue of sweat equity shares, issue and redemption of preference shares, transfer and transmission of securities, further issue of share capital, rights issue, issue of bonus shares, Provisions relating acceptance to deposits from public, Registration of charges including punishment for contravention

Unit III

Register of members, annual return, meetings of shareholders, annual general meeting, extra ordinary general meeting, notice of meeting and explanatory statement, quorum for meetings, ordinary and special resolutions., Meetings of boards, quorum of board meetings, minutes of meetings, notice, agenda, passing resolution of circulation, audit committee, powers of board, loan to directors, loans and investments by the company, related party transaction.

Unit IV

Appointment , registration and removal of auditors, Qualifications and disqualifications of Auditors, Appointment , registration and removal of Directors, Qualifications and disqualifications of directors, vacation of office, number of directorship, Directors report, Provisions relating to additional director, alternate directors, nominee directors, independent directors, appointment of managing directors, whole time director, Key managerial person, secretarial audit, functions of company secretary.

Reference Books:

1. A.K. Majumdar, Dr. G.K. Kapoor, Company Law and Practice; Taxmann, 59/32, New Rohtak Road, New Delhi-110 005.
2. M.C. Kuchhal : Modern Indian Company Law; Shri Mahavir Book Depot, 2603, NaiSarak, Delhi-110 006.
3. A. Ramaiya : Guide to the Companies Act; Lexis Nexis, Butterworths Wadhwa, Nagpur
4. Study Material Executive Programme - Company Law- Paper One , 2018, by ICSI

Question Paper Pattern

Time - 3 Hrs Max. Marks -80

Q. 1 A) Unit I ---------- 8 Marks

B) Unit I ---------- 8 Marks

OR

C) Unit I ---------- 16 Marks

Q2. A) Unit II ---------- 8 Marks

B) Unit II ---------- 8 Marks

OR

C) Unit II ---------- 16 Marks

Q.3. A) Unit III ---------- 8 Marks

B) Unit III ---------- 8 Marks

OR

C) Unit III ---------- 16 Marks

Q.4. A) Unit IV ---------- 8 Marks

B) Unit IV ---------- 8 Marks

OR

C) Unit IV ---------- 16 Marks

Q.5. A) Unit I ---------- 4 Marks

B) Unit II---------- 4 Marks

C) Unit III---------- 4 Marks

D) Unit IV---------- 4 Marks

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -	
CO 1	Determine the factors of project environment and list out the essentials of project management
CO 2	Determine the optimum capital structure for a project
CO 3	Evaluate applicability and efficiency various control tools for effective project management
CO 4	Design and demonstrate the project execution plan for a given project

Unit I: Introduction

Introduction to project and project management. Characteristics and types of projects. Gaining importance, project life cycle and its phases. Project management, Project manager and his responsibilities. phases of Project management, Project environment, the 7S of Project management.

Unit II: Project Finance

Financial feasibility, determinants of cost of project, its financing and deciding optimum capital structure. Cash flows from project and owner's perspective. Project Appraisal. Financial feasibility with risk. Types of risk, techniques of risk evaluation and its mitigation

Unit III: Project Analysis

Time planning. Contents of Project plan, planning process, Work breakdown structure, process mapping. Project Budgeting: Financial Projections, time value of money, cost of capital, Appraisal criteria, , project control –scope/progress control, performance control, schedule control and cost control

Unit IV: Project Implementation

Organizing human resources, systems and procedure for project implementation. Working of systems, Design of systems, project work system design, work breakdown structure, project execution plan, project control system, project diary

Reference Books

1. Clifford F Gray, Erik W Larson, "Project Management-The Managerial Process" Mcgraw-Hill

2. Prasanna Chandra, Projects-Planning Analysis selection, financing, Implementation, McGraw Hill

3. S.Choudhury, Project Management Tata McGraw Hill publishing.,

4. Vasanth Desai, Project Management, Himalaya Publishing House

5 Goel B.B. Project Management, Deep & Deep Publications Pvt. Ltd

Question Paper Pattern

Time - 3 Hrs Max. Marks -80

Q. 1 A) Unit I ---------- 8 Marks

B) Unit I ---------- 8 Marks

OR

C) Unit I ---------- 16 Marks

Q2. A) Unit II ---------- 8 Marks

B) Unit II ---------- 8 Marks

OR

C) Unit II ---------- 16 Marks

Q.3. A) Unit III ---------- 8 Marks

B) Unit III ---------- 8 Marks

OR

C) Unit III ---------- 16 Marks

Q.4. A) Unit IV ---------- 8 Marks

B) Unit IV ---------- 8 Marks

OR

C) Unit IV ---------- 16 Marks

Q.5. A) Unit I ---------- 4 Marks

B) Unit II---------- 4 Marks

C) Unit III---------- 4 Marks

D) Unit IV---------- 4 Marks

E-1- Advanced Financial Management

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -	
CO 1	Prepare a Cash Budget and determine optimal cash balance in a given situation
CO 2	Determine various costs of receivables & payables and frame cost-effective Receivables Management Policy
CO 3	Prepare a Cash Flow Statement of an organization for a given situation
CO 4	Analyze the impact of dividend decisions under various dividend payout and retention ratios

Unit 1: Management of cash and marketable securities

Meaning of Cash Management, Motives of Holding Cash, Objective of cash management, Management of Cash Balance (Setting cash Balance, Cash Cycle, Zero Balance Account, Money Market Banking, Petty Cash (Imprest System), Meaning and types of Float, Management of Float, Meaning and types of Marketable Securities, Cash Management Planning with cash Budget, Cash Management Model (Baumols Model, Moller -Orr Model). *(Theory and Numerical)*

Unit 2: Debtors (Receivables) and Creditors Management:

Meaning of Receivables, Cost of receivables, credit policy and evaluation of debtors, Cash Discount policy and ascertainment of cost of cash discount, Effective cost of bills discounting,
Meaning of Creditors, calculation of cost of credit. *(Theory and Numerical)*

Unit 3:

Cash Flow Analysis

Meaning, Cash flow activities, significance of Cash flow statement and disadvantages. Preparation of Cash Flow Statement (Operating, Investing, Financial Activities) *(Theory and Numerical)*

Unit 4:

Retention Policy (Dividend Decision):

Meaning and concept of dividend, Meaning and concept of retained earnings, importance of dividend, Factors affecting dividend decision, Types of dividends, Dividend and valuation of the firm, Relevance model of dividend policy (Walters Model, Gordons Model), Irrelevance model of dividend policy (Residual Theory, Modigliani and miller theory).
Stability of Dividends, Bonus shares. *(Theory and Numerical)*

Reference Books:

1. Damodaran Aswath: Applied Corporate Finance, Wiley Student Edition
2. E. J. Mclancy: "Business Finance: Theory and Practice". Pearson Education.
3. Gitmam, L. J.: Principles of Management Finance, Addision-Wasley
4. Higgins, R. C: Analysis on Financial Management, Irwin, McGraw Hill
5. Hompton, John: Financial Decision making: Concept, problem & Cases, Prentice hall India.
6. Joseph, P. Ogden, Frank.C.Jen and Philip, F.O'Conner : Advanced Corporate Finance:Policies and Strategies, Pearson Education
7. Khan & Jain: Financial Management, Tat McGraw

Question Paper Pattern

Time - 3 Hrs Max. Marks -80

Q.1- A) Unit I ----------8 marks (Theory) B)Unit I ----------8 Marks (Numeric)

OR

C)Unit I ----------16 Marks (Numeric)

Q.2- A) Unit II ----------8 marks (Theory)

B) Unit II ----------8 Marks (Numeric)

OR

C) Unit II ----------16 Marks (Numeric)

Q.3- A) Unit III ----------8 marks (Theory) B)Unit III----------8 Marks (Numeric)

OR

C)Unit III ----------16 Marks (Numeric)

Q.4- A) Unit IV ----------8 marks (Theory) B)Unit IV ----------8 Marks (Theory)

OR

C)Unit IV ----------16 Marks (Numeric)

Q.5 A) Unit I ----------4 Marks (Theory)

B)Unit II---------- 4 Marks (Theory)

C)Unit III ---------- 4 Marks (Numeric)

D)Unit IV----------4 Marks (Numeric)

E-2- Basics of GST

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -	
CO 1	To learn and understand GST Law, and its application
CO 2	Determine the value of taxable goods and services and Input Tax Credit
CO 3	Understand provisions related to compliances under GST Act
CO 4	Understand provisions related to demand and appeals

Unit I :

GST - The Road Begins -Draft Model GST Law - Positives –Negatives- LEVY - Territorial jurisdiction of GST - Taxable Event - Consideration - Levy and collection of GST - Composition levy - PLACE AND TIME OF SUPPLY - Definitions of Goods & Services - Time of supply.

Unit II

VALUATION - Value of taxable goods and services- Valuation Rules SPECIAL TRANSACTIONS - Job work - Electronic Commerce -INPUT TAX CREDIT - Input tax credit - Input Service Distributor -REFUNDS - Refund Interest on refund.

Unit III

COMPLIANCES - Registration - Invoices, credit and debit notes - Payment of tax - Tax deducted at source - Returns - Accounts and Records

ASSESSMENT, AUDIT AND INSPECTION - Assessment - Audit - Inspection - INTEREST, PENALTY AND PROSECUTION - Interest - Offences and Penalties – Prosecution.

Unit IV

DEMAND AND APPEALS - Demand - Appeals - CGST - SGST -GISTALTERNATE DISPUTE RESOLUTION MECHANISM - Authority of Advance

Ruling - Settlement of cases. - Recovery of tax - Liability to pay tax in specified cases - TRANSITIONAL PROVISIONS -Transitional Provisions.

Reference Books:

1. Indirect Tax, RG Saha, Usha Devi N, Himalaya Publication House
2. Goods and Service Tax, HC Mehrotra, Sahitya Bhavan Publication, Agra
3. GST Ready Reckoner, VS Date, Taxmann

Question Paper Pattern

Time - 3 Hrs Max. Marks -80

Q. 1 A) Unit I ---------- 8 Marks

B) Unit I ---------- 8 Marks

OR

C) Unit I ---------- 16 Marks

Q2. A) Unit II ---------- 8 Marks

B) Unit II ---------- 8 Marks

OR

C) Unit II ---------- 16 Marks

Q.3. A) Unit III ---------- 8 Marks

B) Unit III ---------- 8 Marks

OR

C) Unit III ---------- 16 Marks

Q.4. A) Unit IV ---------- 8 Marks

B) Unit IV ---------- 8 Marks

OR

C) Unit IV ---------- 16 Marks

Q.5. A) Unit I ---------- 4 Marks

B) Unit II---------- 4 Marks

C) Unit III---------- 4 Marks

D) Unit IV---------- 4 Marks

M.COM (Industrial Relations and Personnel Management)
W.E.F.2023-24

Program Specific Outcomes

PSO 1	Develop necessary professional knowledge and skills in Labour Laws and Industrial Relations
PSO 2	Demonstrate the ability to interpret various provisions of labour laws
PSO 3	Demonstrate effective oral and written communication required for industrial relations
PSO 4	Implement traditional and modern strategies and practices of industrial relations and labour laws
PSO 5	Develop competency in students to make them employable in the labour relations domain

Teaching and Examination Scheme

A teaching and examination scheme for students admitted to the M. Com. (Industrial Relations and Personnel Management) Program shall be as follows:

Master of Commerce (Industrial Relations and Personnel Management)

Semester I

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Industrial Psychology		4	-	4	80	-	20	100	40	4
2.	Core	Labour Laws – I		4	-	4	80	-	20	100	40	4
3.	Core	Industrial and Labour Economics		4	-	4	80	-	20	100	40	4
4.	Elective	Public System Management OR Organizational Behaviour OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	Research Methodology		4		4	80	-	20	100	40	4
				20		20	400	-	100	500	200	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

5. TH = Theory, CIE= Continuous Internal Evaluation

6. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Industrial Relations and Personnel Management)
Semester II

Sr. No.	Course Type	Subject	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Industrial Relation and Trade Union Movement		4	-	4	80	-	20	100	40	4
2.	Core	Labour Laws – II		4	-	4	80	-	20	100	40	4
3.	Core	Labour Cost and Compensation Management		4	-	4	80	-	20	100	40	4
4.	Elective	Global Human Resource Management OR Organizational Development and Quality Management System OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	On Job Training		-	8	8	-	100	-	100	50	4
				20	-	20	320	100	80	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Industrial Relations and Personnel Management)
Semester III

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Industrial Safety Management		4	-	4	80	-	20	100	40	4
2.	Core	Labour Laws – III		4	-	4	80	-	20	100	40	4
3.	Core	Employee Relations and Engagement		4	-	4	80	-	20	100	40	4
4.	Elective	Strategic Human Resource Management OR Current Trends in HR Practices OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	Research Project		-	8	8	-	100	-	100	50	4
				16	8	24	320	100	80	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Industrial Relations and Personnel Management)
Semester IV

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Legal Aspects in Environment Safety		4	-	4	80	-	20	100	40	4
2.	Core	Labour Laws – IV		4	-	4	80	-	20	100	40	4
3.	Core	Ethics in HRM		4	-	4	80	-	20	100	40	4

4.	Elective	Human Resource Information Systems OR Human Resource Accounting and Audit OR MOOC		4	-	4	80	-	20	100	40	4
5.	Con.	Research Project		-	12	12	-	100	-	100	50	4
				16	12	28	320	100	80	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Detailed Syllabus
M. Com. (Industrial Relations and Personnel Management)
Semester - I

CC01: Industrial Psychology

Course Outcomes

CO1	The students will be able to **relate** the concept of Psychology with Industry
CO2	The students will be able to **differentiate** types of psychology and will also able to **assess** impact of psychology on behaviours of individuals.
CO3	The students will be able to **conduct** psychological tests to measure and evaluate individual and group behaviour
CO4	The student will be able to **identify** determinants of group behaviour.
CO5	The students will be able to **apply** the concepts of psychology in Industrial Relations

Unit 1: Introduction of the term 'Industry' and 'Psychology' – Definitions – nature –importance – scope – factors responsible for psychology – behaviour of an individual in an industry – individual difference

Unit 2: Types of Psychology - Types and characteristics of psychology – factors responsible – mental psychology – its impact on behaviour – Difference between male and female psychology – its impact on behaviour – Differentiate between male and female psychology – its impact on efficiency – productivity etc.

Unit 3: Tests for Psychology - Effectiveness of these tests – Measures to control the tests steps to improve the psychology Individual Behaviour and Group Behaviours - Interaction between them – psychology involved in each individual – Necessary suggestions for improving psychology

Unit 4: Group Dynamics – Characteristics of group behaviour, Research Methodology for psychology, determinants of group behaviour, Concept of group climate, group behaviour models.

Reference Books:

1. Industrial/Organizational Psychology: An Applied Approach, 8th Edition, Michael G. Aamodt, 2016
2. Industrial/Organizational Psychology: Understanding the Workplace, 5th Edition, Paul E. Levy, 2017
3. Psychological Testing and Assessment, 9/e, Ronald Jay Cohen (Author), Mark E. Swerdlik (Author)
4. Group Dynamics and Team Building, R K Sadhu, Excel Books
5. Introduction to Psychology, Shashi Jain, Kalyani Publishers
6. Organizational Behaviour, 18e, Neharika Vohra Stephen P. Robbins, Timothy A. Judge (Author), Pearson Education

CC02: Labour Law - I

Course Outcomes

CO1	The students will be able to **understand** the definition of industry and will also be able to **identify** causes of industrial disputes.
CO2	The students will be able to **identify** causes and measures for strikes and lockouts in industries.
CO3	The students will be able to **understand** the provisions for restriction of unfair labour practices.
CO4	The student will be able to **comprehend** principles of natural justice.
CO5	The students will be able to **relate** various labour laws in Industrial Relations

Unit 1: Industrial Disputes Act, 1947 Definition of Industry, Workman and Industrial Dispute – Authorities under the Act – Procedure, Powers and Duties of Authorities

Unit 2: Strikes and Lock outs –Lay off and Retrenchment – Special Provision relating to Layoff, Retrenchment and Closure

Unit 3: Maharashtra Recognition of Trade Unions & Prevention of Unfair Labour Practices Act, 1971, All provisions of the Act (Entire Act)

Unit 4: The Industrial Employment (Standing Orders) Act, 1946 All provisions of the Act (Entire Act), Principles of Natural Justice

Reference Books:

1. P.L MALIK'S HANDBOOK OF LABOUR AND INDUSTRIAL LAW GENERIC BOOK
2. Industrial Law – J. K. Bareja, Galgotia Publications Pvt Ltd
3. Industrial Relations and Labour Laws for Managers SAGE Publications India Private Limited; First Edition
4. Labour laws for Managers – R.D. Singh
5. Industrial & Labour Laws – S. P. Jain, Dhanpat Rai & Co.; Standard Edition

CC03: Industrial & Labour Economics

Course Outcomes

CO1	The students will be able **to analyse** the concept of labour economics
CO2	The students will be able to **identify** causes and measures for unemployment problem and will also able to **evaluate** Govt programmes for unemployment solutions.
CO3	The students will be able to **differentiate** pre and post 1990-91 economic problems and measures taken up to solve them
CO4	The student will be able to **identify** role of financial institutions for enhancing industrial productivity.
CO5	The students will be able **to relate** the concepts of economic principles in Industrial Relations

Unit 1: Labour Economics, Nature and scope of Labour Economics-Rise of economic problems in Labour, Management, Wage Management, Nominal & real wages, factors affecting them-Wages, incentives, D.A. and other allowances, consumer prices index – Wage differentials

Unit 2: Labour Market: Labour market analysis – demand for and supply of labour determinants of demand for and supply of labour – Mobility of labour – Problems for labour market – migratory, casual, probationary consequences of new information technology – Efficiency of Indian labour and effort to improve Nature, causes and measures to solve problems of unemployment – Employment Policy – different programmes undertaken by Govt. after independence to increase employment like IRDP, DPAP, NREP – Problems of Agricultural Labour, Child Labour and Female Labour

Unit 3: Industrial Economics, Nature and scope of Industrial Economics – Industrial development and economic Development – Changes in Indian Economy Policy after 1990-91 – Features and Economic problems of public sector employees - Profile of Industrial Sector – Public sector, Private Sector, Small Scale and Village Industries – Joint Sector and Co-operative Sector – Achievement and Problems faced – Industrial Location – Factors/ Determinants- Alfred Weber's Theory of Industrial Location

Unit 4: Industrial Finance – Need, Types, Short Term and Long-Term capital – Foreign exchange component – Role of Public Sector Banks and Private Sector Banks – Small scale industries and development of backward areas – Service Sector in India: Role, present position and problems – Challenges and Opportunities in Service Industries – Factors determining Industrial Productivity – Remedy to improve industrial productivity

Reference Books:

1. Principles of Economics by Robert H. Frant and Ben S. Bernanke, Publication – Tata McGraw – Hill
2. Labour Economics By Roy B. Helfgott Publication – Random House, New york
3. Economics of Labour and Industrial Relations by Dr. T. N. Bhagoliwal Publication – Sahitya Bhavan Publication
4. Labour Economics by F. Ray Marshall, Vernon M. Briggs, Jr. and Allan G. king Publication – Richard D. Irwin, INC
5. Labour Welfare, Trade Unionism and Industrial Relations by Punekar, Deodhar and Sankaran Publication – Himalaya Publishing House
6. Aspects of Labour Welfare and Social Security by A. M. Sarma Publication – Himalaya Publishing House

DSE01: Public System Management

Course Outcomes

CO1	The students will be able **to understand** the role of various public enterprises.
CO2	The students will be able **to assess** the importance of energy management and water management and will also be able to **suggest** measures for conservation of energy and water resources
CO3	The students will be able **to understand** the evolution of education system and telecom system in India
CO4	The student will be able to **differentiate** roles of local, regional and state agencies in infrastructural development
CO5	The students will be able **to relate** the functioning of various public enterprises in development of public utilities

Unit 1: Public Goods & services, Concept of Public System, Role of Government in Public System, Types of Public system, Weaknesses & Issues of the Public System in India. Public Enterprise Management - Objectives and Roles of Public Enterprise, Organizational Forms and Working of the Board of Management, Public Enterprise Policy and Reform Measures, Marketing Problems of Public Enterprises

Unit 2: Energy Management - Organisation for Energy Management: Goal setting in Energy Management; Energy crisis, energy use Patterns and scope for Conservation; Energy Audit, Energy Pricing; Non-conventional sources of energy; Utilization of solar energy; Biomass as a source of energy; The option of Nuclear energy in the developing countries; Water Resource Management - Objectives and organization of water resource Management; Optimization techniques for water resources projects; Scientific utilization of Agriculture water; irrigation projects; Water crisis management flood and droughts; Water harvesting; Problem relating to supply and timely use of water in cities and towns.

Unit 3: Education as Development Priority; Education and Economic growth; International Comparisons; Strategies of Development of Education System; Concept of Investment in Man; Systems of Education in India: Formal, informal, Primary, Secondary and Higher Education; Management of Telecommunication systems - Role of Telecommunication; Effects of technology and scale on cost of service; Organization, management and financing in Telecommunication; Mobilizing resources for expansion, Impact of Telecommunications on rural development, Cases: BEL, C-DOT, DoT, BSNL and Telecom Commission.

Unit 4: System analysis and system dynamics in health care; Health system: Characteristics, Planning methodologies, Goals and functions; Strategic management in health care; Quantitative foundations of

health services management; Public Infrastructure Management– Definition; Local, Regional, State and Federal Agencies responsible for infrastructure development and their role in Regional Planning Process; The role of Civic Organizations and Private Sector; Overview of the Infrastructure Management Process. Infrastructure Developments from Road Transport, Railways, Power, Airports and Shipping Ports like PWD, MSRDC, Central Railway, DLF, GMR, GVK, TATA Energy and Reliance Energy etc.

Reference Books:

1. "Ideas that have Worked" by Department of Administrative Reforms and Public Grievances, 2004, Penguin / Viking, New Delhi
2. "Infrastructure Management: Design, Construction, Maintenance, Rehabilitation, Renovation." Hudson, Haas, and Uddin, McGraw-Hill, 1997
3. Bureau of Public Enterprises. Public Enterprises Survey, 1994-95, New Delhi, 1996
4. Donglass, C. "Energy Technology Handbook". McGraw Hill, New York. 1977
5. Chaturvedi, T.N. (ed) "Training in Public Administration: The changing Perspectives". 1989. The Indian Institute of Public Administration, New Delhi
6. Chatuvedi, M.C. and Rogers P. "Water Resources Systems Planning: Some Case Studies for India. Indian Academy of Sciences, Bangalore, 1995. Indian Factories Act 1948, Universal Lexis Nexis.

DSE01: Organizational Behaviour

Course Outcomes

CO1	The students will be able to relate the role of organisational behaviour with productivity and managerial effectiveness.
CO2	The students will be able to assess the relationship of Perception, Attitudes, and Motivation with individual behaviour
CO3	The students will be able to identify the stages of team building and reasons of group conflicts and will also be to evaluate methods to resolve the group conflicts
CO4	The student will be able to differentiate various OD techniques and will also be able to describe the process of OD
CO5	The students will be able to state the various concepts of organizational behaviour with development of industrial relations

Unit 1: Organizational Behaviour - The nature of organisations: Why do organisations exist? Components of organisations; Organisations as open systems, Managers in organisations, Productivity

and managerial performance, Value-added managers, the manager's challenge, Organisational behaviour and the new workplace, Managing the globalisation of work, managing human rights in the workplace, managing developments in information technologies, Managing organisational transitions, Managing new forms of Organisation. Biographical characteristics, ability, and learning

Unit 2: **Perception**: Introduction, Halo effect, Stereotyping, pigeonholing and compartmentalization; Self-fulfilling prophecy; Perception psychology; other influences on perception. Attitudes and values : Attitudes, Components of attitudes, **Attitudes and behaviour**: Attitudes and cognitive consistency, Job satisfaction as an attitude; development Values, Sources and types of values, Patterns and trends in values, Managing values and attitudes. **Motivation**: - Concepts, Theories of Maslow, Herzberg, McClelland, Porter & Lawler Model, Application of Motivation concept, Individual motivation and motivation in the organization, Cultural Differences in Motivation, Intrinsic and Extrinsic Motivation, Social Motivation, Motivation and Health, Role of motivation in human behaviour.

Unit 3: Foundations of group behaviour - The nature of groups: groups and teams, informal and formal groups, purpose of teams, Teams and team building: selecting team members, team roles, stages in team development, team building, team identity, team loyalty, commitment to shared beliefs, multi-disciplinary teams, Team Dynamics: group norms, decision-making behaviour, dysfunctional teams, Cohesiveness. Conflict – Substantive and emotional conflicts, Levels of conflict, Sources of conflict in organisations, Symptoms of conflict Causes of conflict, Strategies for the management of conflict.

Unit 4: Organizational Change - Nature, levels and dilemmas of change, Pressures for change, The Domino effect, Responses to change, Force field analysis, Change process, Resistance to change, Dynamics of change. **Organizational Development** - Goals of organisational development: Principles underlying organisational development, Ethical aspects of organisational development, The process of organisational development: Action research and organisational development, Organisational development interventions: Organisation-wide interventions, smaller group and intergroup interventions, Individual interventions. - Traditional: Grid Training, Survey Method; Modern: Process Consultation Method, Third OD **Techniques** Party, Team Building, Transactional Analysis.

Reference Books:

1. Organisation Behaviour, Fred Luthans McGraw-Hill Education; 12th edition
2. Organisation Behaviour, Stephen P. Robbins (Author), Timothy A. Judge (Author), Neharika Vohra (Author) Robbins, 18th Pearson Education Asia
3. Principles of Organizational Behaviour OUP Oxford; 4th edition. By Robin Fincham (Author), Peter Rhodes (Author)

4. Prentice Hall India Organisational Behaviour: Human Behaviour at Work Neustrom & Davis, 10th, Tata McGraw Hill
5. Organisational Behaviour: Individuals, Groups and Organisation Second Edition (Prentice Hall, 2002)

Semester - II

CC04: Industrial Relation & Trade Union Movement

Course Outcomes

CO1	The students will be able **to understand** the definition of trade union and will also be able **to identify** role of trade unions in industries.
CO2	The students will be able to **identify** causes and measures for industrial disputes
CO3	The students will be able **to understand** the concept of collective bargaining will also be able **to analyse** the importance of worker's participation in management.
CO4	The student will be able **to apply** grievance handling procedures.
CO5	The students will be able to **relate** trade union movement in developing industrial relations

Unit 1: Industrial Relations – Importance, Definition, Scope, Role and Impact on Labour Laws legislation, Execution, Employer, Trade Unions and Judiciary Trade Union – objectives, functions, New Role of Trade Union in the context of globalization, IT, trade and productivity.

Unit 2: Industrial dispute – nature & causes of industrial disputes Machinery for solving industrial disputes under Industrial Disputes Act, 1947 at national and state level Role of Judiciary & its impact on industrial relations

Unit 3: Collective bargaining – meaning, characteristics, need, importance, process, causes for failure of collective bargaining, Alternatives to collective bargaining, Importance of employee stock option plans. Worker's participation in management – concept, pre-requisites, forms & levels of participation, benefit of workers Participation in Management

Unit 4: Grievance handling procedure – labour management, Co-operation, role of functional manager including personnel & industrial relations manage. in promoting & establishing peaceful industrial relations

Reference Books:

1. Dynamic Personnel Administration – Prof. M. N. Rudrabasavraj.

2. Personnel Management and Industrial relations – P. C. Shejwalkar andS. B. Malegaonkar
3. Labour Management relations in India – K.M. Subramanian
4. Trade Unionism Myth and Reality, New Delhi, Oxford University Press
5. Dynamic Personnel Administration – Prof. M.N. Rudrabasavraj.
6. Personnel Management and Industrial Relations – P. C. Shejwalkar and S. B. Malegaonkar

CC05: Labour Law - II

Course Outcomes

CO1	The students will be able **to apply** the of terms like Health, Working Hours, Annual Leaves, Wages etc for factory labour.
CO2	The students will be able **to identify** the provisions laid down in Bombay Shops and Establishment Act and will also be use regulations related to digital signature.
CO3	The students will be able **to understand** the provisions and regulations of contract labour and its practices.
CO4	The student will be able **to apply** principles of minimum and fair wages for labour force of an organisation.
CO5	The students will be able **to relate** various labour laws in Industrial Relations.

Unit I: Factories Act, 1948, Approval, Licensing and registration – Inspecting Staff – Health –Welfare – Working Hours – Annual Leave with wages – Periodical Returns – Registers and Records

Unit II: Bombay Shops and Establishments Act, 1948, All provisions under the Act (Entire Act), Information Technology Act, 2000, Digital Signature – Electronic governance – Secure Digital Signature – Regulation of Certifying Authorities – Digital signature Certificates – Duties of Subscribes

Unit III: Contract Labour (Regulation and Abolition) Act, 1970, All provisions under the Act (Entire Act)

Unit IV: Payment of wages Act, 1936, All provisions under the Act (Entire Act)

Reference Books:

1. P.L MALIK'S HANDBOOK OF LABOUR AND INDUSTRIAL LAW GENERIC BOOK
2. Industrial Law – J. K. Bareja, Galgotia Publications Pvt Ltd

3. Industrial Relations and Labour Laws for Managers SAGE Publications India Private Limited; First Edition
4. Labour laws for Managers – B.D. Singh
5. Industrial & Labour Laws – S. P. Jain, Dhanpat Rai & Co., Standard Edition

CC06: Labour Cost & Compensation Management

Course Outcomes

CO1	The students will be able to **understand** the concept of cost of labour and will also be able to **apply** cost benefit analysis with respect to labour deployment.
CO2	The students will be able **to compute** the ideal labour salary.
CO3	The students will be able to **differentiate** the concept of compensation and incentives.
CO4	The student will be able **to prepare** sound incentive schemes for employees.
CO5	The students will be able to **relate** the concepts of labour cost with labour compensation and incentives.

Unit I: Costs -Various concepts, Elements of cost, Cost Sheet-Orientation & understating of problems. Various Statutory Requirements related to Cost of Labour Cost Benefit Analysis of important HR functions

Unit II: Labour turnover & Productivity & Cost associated Ideal Labour Salary Calculations -Component deductions, disbursement & control

Unit III: Compensation, Elements of compensation, Principles of determination of compensation Incentives, its place in compensation.

Unit IV: Indian Industry, Practices of Incentives, Designing sound incentive scheme. Incentive Schemes for direct and indirect workers. Incentive schemes for employees in service industries

Reference Books:

1. Labour Cost and Compensation Management, Prof A P Rao, Everest Publishing House; 10th Edition
2. Labour Costing & Compensation Management, Dr. Pradip K Sinha, Nirali Publication
3. Cost Accounting: Texts and Problems; Shukla M.C. (Author), Grewal T.S. (Author), Gupta M.P (Author), S Chand & Company

DSE02: Global Human Resource Management

Course Outcomes

CO1	The students will be able **to relate** the societal culture with organisational culture.
CO2	The students will be able **to understand** the global HR ethics, values and principles for MNCs.
CO3	The students will be able **to understand and apply** the six sigma and ISO standard in HR policies and procedures
CO4	The student will be able **to apply** strategic HR decisions in global context.
CO5	The students will be able **to relate** the various HR concepts in global context for MNCs and international organisations.

Unit I: Strategic HRM – Global Business strategy – Managing HR for Competitive Advantage – Societal Culture – Impact of Societal Culture in mangers – Managers behaviour and employment relations – Relation between societal culture and organizational culture – Cross Cultural Management – communication across culture – different types of organization – Learning and stakeholder in organization – Cross cultural effect on various functions of HRM (Motivation – leadership- Teams)

Unit II: Global HR Orientation along with knowledge of Global Business Model – Strategy – process of Industry, Global HR ethics – values – principles – policies and processes in view of MNC and Fortune 500 Companies

Unit III: Global compensation computation practice along with productivity and performance management, Global Incentives Management System – Short-term long-term systems – Six Sigma process improvement in accordance with ISO standards processes and procedures. Cross Cultural Management – including communication (Language) –Lifestyle – Climatic and Environmental changes – global Socio-cultural factors– customs and traditions including personal – psychological and individual determinants

Unit IV: Strategic Human Resource Management in the context to Global Scenario, Global HR Environment and strategizing the entire Global process – Global Reward and compensation Management – Global Training and Development Strategies – Global Performance Management system – Global Exit and Retrenchment Strategies, Mergers and Acquisitions – Implications of HR at Global level

Reference Books:

1. INTERNATIONAL HUMAN RESOURCE MANAGEMENT: GLOBALIZATION, NATIONAL SYSTEMS AND MULTINATIONAL COMPANIES, Tony Edwards (Author), Pearson Education; 1st edition
2. INTERNATIONAL HUMAN RESOURCE MANAGEMENT, 3RD EDITION, McGraw Hill Education (India)
3. International Human Resource Management, Peter J. Dowling (Author), Marion Festing (Author), Allen D. Engle (Author), Cengage India Private Limited
4. Executive Skills for Global Managers, Upendra Dhar and S Ravishankar, Himalaya Publishing House
5. International Business and Globalization (Contemporary Issues in Business & Globalization), D. John Daniels, Jeffrey A. Krug, SLE Pound; 1st edition

DSE02: Organisation Development & Quality Management System

Course Outcomes

CO1	The students will be able to **differentiate** the OD theories of various behavioural scientists.
CO2	The students will be able to **differentiate** the various change models.
CO3	The students will be able to **understand** the concepts of intergroup, self-managed teams and group behaviour modelling
CO4	The student will be able to **establish** the client consultant relationship.
CO5	The students will be able to **relate** the various OD concepts with various quality management for managing industrial relations

Unit I: Define the concept of OD, values, assumptions, importance. Evolution: Robert Tanenbaum, Kurt Lewin, McGregor, Herbert Shepard, Robert Blake Foundation of OD: action research, survey feedback, systems theory, teams and teamwork, participation and empowerment, applied behavioural science, parallel learning structures.

Unit II: Process of OD, change model, Berke and Litwin, Porras and Robertson. OD interventions: importance and meaning team interventions: role analysis, role Negotiation, appreciation and concern, inter-dependency

Unit III: Intergroup: Walton, principled negotiation, Structural: structural's, work redesign, quality, self-managed teams. Individual: t-group, behaviour modelling

Unit IV: Client consultant relationship, Identify major challenges in client consultant Relationship, Case lets / cases on: Problem identification, Implementation of intervention, Action research

Reference Books:

1. Organization Development: Accelerating Learning and Transformation, S. Ramnarayan (Author), Sage Response; Second edition
2. ORGANIZATION DEVELOPMENT: BEHAVIORAL SCIENCE INTERVENTIONS FOR ORGANIZATIONAL IMPROVEMENT, 6TH EDN, French Wendell L, Bell Jr Cecil H, Pearson Education; Sixth edition
3. Organization Development Interventions: Executing Effective Organizational Change, Behnam Bakhshandeh (Editor), Sohel Imroz (Editor), William Rothwell (Editor), CRC Press; 1st edition
4. Organization Development & Change, 9th Edition, Thomas G. Cummings and Christopher G. Worley, Cengage Learning

Semester - III

CC07: Industrial Safety Management

Course Outcomes

CO1	The students will be able to **identify** the qualification, duties and responsibilities and appointment of safety officer
CO2	The students will be able **to analyse** the causes and control of industrial disasters
CO3	The students will be able **to understand** the legal provision of various industrial safety
CO4	The students will be able **to identify** the types and causes of fire in industries

Unit I: Safety Management - Concept of Safety, Applicable areas, unsafe actions & Conditions. Responsibility of Safety - Society, Govt., Management, Union & employees. Safety Officer - Appointment, Qualification, Duties of safety officer. Safety Committee - Membership, Functions & Scope of Safety committee. Motivation & Training of employees for safety in Industrial operations.

Unit II: Disaster Management - Designing, Importance & implementation of Disaster Control Action Plan. Industrial Accidents - Causes & effects of industrial accidents. Accident Radio Theory, Cost of Accidents, Impact of Accidents on employees, Union, Management & Society & their role & responsibility in the prevention of accidents.

Unit III: Legal Provisions regarding safety, Accident prevention & Compensation to affected employees as under Factories Act-1948, Factories Act (Amendment)1987, Maharashtra Factories Rule-1963,The Mines Act- 1952,Maharashtra Safety Officers Rule-1982,The Workmen Compensation Act- 1923,ESI Act, Public Liabilities Insurance Act-1991,Fatal Accident Act, Functions of National Safety Council. Accidents:- recording, Investigation analysis & reporting.

Unit IV: Fire- basic Chemistry/ Mechanism, Reasons, prevention & types of fire, extinction of fire, Loss prevention Association-Objective, formation, scope & significance.

Reference Books:

1. Industrial safety act, Bare act
2. Industrial Safety, Health and Environment Management Systems, Prof. Sunil S.Rao & R.K.Jain (Author), Khanna Publishers; Latest edition
3. Industrial Safety Management System, Raj Kishore Ojha (Author), 24by7Publishing; First Edition

4. Principles of Industrial Safety Management, DAS AKHIL KUMAR (Author), PHI Learning Pvt Ltd
5. Industrial Safety Management: Safety Health And Environment Management, Pravin M. Pathak , Jayant P. Khairnar, Notion Press

CC08: Labour Laws – III

Course Outcomes

CO1	The students will be able **to understand** the regulations and provision included in Employee's Provident Fund Act. 1952
CO2	The students will be able to **understand** the regulations and provision included in Employee's State Insurance Act, 1948
CO3	The students will be able **to understand** the regulations and provision included in Worksman's Compensation Act. 1923
CO4	The students will be able to understand the regulations and provision included in Maternity Benefit Act. 1961

Unit I: Employees' Provident Fund Act, 1952 - Entire Act

Unit II: Employees State Insurance Act, 1948 - Entire Act

Unit III: Workman's Compensation Act, 1923 - Entire Act

Unit IV: Maternity Benefit Act, 1961 - Entire Act

Reference Books:

1. P.L MALIK'S HANDBOOK OF LABOUR AND INDUSTRIAL LAW GENERIC BOOK
2. Industrial Law – J. K. Bareja, Galgotia Publications Pvt Ltd
3. Industrial Relations and Labour Laws for Managers SAGE Publications India Private Limited; First Edition
4. Labour laws for Managers – B.D. Singh
5. Industrial & Labour Laws – S. P. Jain, Dhanpat Rai & Co.; Standard Edition

CC09: Employee Relations and Engagement

Course Outcomes

CO1	The students will be able **to learn** to build the effective employee relationship
CO2	The students will be able **to explain** effective employee communication
CO3	The students will be able **to relate** the work life balance and employee stress with employee well being
CO4	The students will be able **relate** engagement programmes with performance effectiveness

Unit I: Introduction to Employee Relations: Introduction, Overview of Employee Relations, Importance of Employee Relations, Employee Relations Management Tool, Core Issues of Employee Relations Management, Strategic Employee Relations Management: Introduction, Different Strategy Levels in an Organization, Strategy and Employment Policies, Future Challenges, the Psychological Contract

Unit II: The Employment Relationship; The Situation and the Challenge: Accelerating a caring and agile, Managing Engagements, Importance Employee Communication: Employee Communication, Employee communication Strategy and Examples, Employee Voice, Employee Voice Platforms and using it for strategy

Unit III: Employee Wellbeing: Employee Wellbeing, Work and non-work life conflict and employee well-being, Physical wellbeing incentives, Work Stress: Work stress models and theoretical frameworks, Common work stressors and strains, Individual differences in experiencing work stress, Recovery from work stress

Unit IV: The Workplace: Emotional Workplace, Physical Workplace, Technological Workplace, Purposeful Workplace, Job Titles from Future, Future of Work and Workplaces, **Engagement and Performance:** Why engagement is a part of performance, not all engagements are equal, Framework for Work engagement, Meaningful engagement

Reference Books:

1. Employee Relations Management 1st Edition P. N. Singh (Author), Neeraj Kumar (Author), Pearson
2. Employee Relations: A Practical Introduction (HR Fundamentals), Kogan Page; 2nd edition
3. Employee Relations Management, Sahoo D P; SAGE Publications India Pvt Ltd
4. Employee Relations: The International Journal; emerald publishing

5. Engaging Employees through Strategic Communication: Skills, Strategies, and Tactics; Jon Stemmle (Author), Mark Dollins (Author), Routledge; 1st edition
6. Managing Health, Safety and Well-Being: Ethics, Responsibility and Sustainability (Aligning Perspectives on Health, Safety and Well Being) 1st ed.; Aditya Jain (Author), Stavroula Leka (Author), Gerard I.J.M. Zwetsloot (Author); Springer; 1st ed. 2018 edition
7. Employee Engagement: A Practical Introduction (HR Fundamentals Book 24), Emma Bridger (Author), Kogan Page; 3rd edition
8. Human Resource Management, 16/e, Dessler (Author), Varkkey Gary (Author), Biju (Author), Pearson

DSE03: Strategic Human Resource Management

Course Outcomes

CO1	The students will be able **to understand and differentiate** business and corporate strategies for human resource
CO2	The students will be able to **explain** work life balance of human resource. The students will be able to **evaluate** effectiveness of various modern recruitment and selection methods and will also be able **to map** competencies of human resource.
CO3	The students will be able to **explain** rewards and compensation strategies based on performances of employees.
CO4	The students will be able to relate leadership, power and politics in implementing strategic HR decisions

Unit I: Introduction to Strategic HRM, Definition, need and importance - Introduction to business and corporate strategies - Integrating HR strategies with business strategies – Developing HR plans and policies - Human Resource Environment, Technology and structure - Workforce diversity - Demographic changes – Temporary contract labour - Global environment - Global competition – Global sourcing of labour - WTO and labour standards

Unit II: Recruitment and retention strategies, Online recruitment - Employee referrals - Recruitment process outsourcing – Head hunting - Executive education – Flexi timing – Telecommuting - Quality of work life -Work – life balance – Employee empowerment - Employee involvement -Autonomous work teams, Training and Development Strategies Creating learning organization - Competency mapping – Multi-skilling –Succession planning - Cross cultural training

Unit III: Performance Management strategies, Defining key result areas (KRA) – Result based performance - Linking performance to pay - Merit based promotions, Reward and Compensation Strategies, Performance based pay - Skill based pay - Team based pay - Broad banding - Profit sharing - Executive compensation - Variable pay, Retrenchment strategies Downsizing - Voluntary retirement schemes (VRS) - HR Outsourcing – Early retirement plans - Project based employment

Unit IV: Human Aspects of Strategy implementation Behavioral issues in strategic implementation - Matching culture with strategy - Human side of mergers and acquisitions - Leadership, power and politics - Employee morale – Personal values and business ethics Global HR Strategies, Introduction to global HR strategies - Developing HR as a value added function.

Reference Books:

1. Strategic Human Resource Management , 5th Edition, Jeffrey A. Mello, Cengage Learning
2. Strategic Human Resource Management : A General Managerial Approach, 2nd Edition, Charles R Greer, Pearson Education India
3. Armstrong's Handbook of Strategic Human Resource Management, Kogan Page; 6th edition
4. Strategic Human Resource Management, Tanuja Agrawal, Oxford
5. Strategic Human Resource Management and Development, 1st Edition, Ekta Sharma, Pearson Education

DSE03: Current trends in H.R. Practices

Course Outcomes

CO1	The students will be able to **learn and apply** the current trends of interview techniques for online and lateral recruitment.
CO2	The students will be able **to explain** the concept of job-varsatality and development of professional approach
CO3	The students will be able **to prepare** policies for retention of intellectual human factor
CO4	The students will be able **to understand** the role of BPOs and KPOs in development of HR culture and will also be able to **evaluate** its policies by designing balance score card
CO5	The students will be able **to apply** current trend of HR on global and national perspective for making innovative and effective HR policies of an organisation.

Unit I: Recruitment – lateral and online, Interview technique – Payment of wages and salary in consolidated from – demerits

Unit II: Importance of Job description and allotment of duties attached to each job - Versatility – need of the hour- present industrial scenario. - Development of professional approach. -

Unit III: Retention of intellectual human factor. - Frequent transfer at frequent intervals. - Training and development – absence of innovative practices. -

Unit IV: VRS policies - Role of call centers, BPOs, KPOs and study of their industrial culture. Balanced score card, Rights of Intellectual properties

Reference Books:

1. Essentials of Human Resource Management and Industrial Relations, 6th Edition, P. Subba Rao, Himalaya Publishing House Pvt Ltd.
2. Current Trends In Human Resource Management, Preeti Surkutwar, LAP LAMBERT Academic Publishing; 1st edition
3. Recent Trends in Human Resource Management, Dr Ravindra Kanthe, Himalaya Publishing House Pvt Ltd
4. Emerging Trends in HRM: Sectoral Experiences, Mrudula E (Author), V V Ramani (Author), DGM- ICFAI Books
5. Human Resource Management: Text & Cases, 2nd Edition, Sharon Pande (Author), Swapnalekha Basak (Author), Vikas Publishing House

CC10: Legal Aspects in Environment Safety

Course Outcomes

CO1	The students will be able **to understand** the legal provisions for environment protection.
CO2	The students will be able **to describe** powers and functions of central and state pollution control boards for controlling air pollution
CO3	The students will be able **to describe** powers and functions of central and state pollution control boards for controlling water pollution
CO4	The student will be able **to differentiate** between sound and noise and will also be identify and control the causes of noise pollution

CO5	The students will be able **to relate** laws and regulations for industries in protection of environment.

Unit 1: Environment Protection Act, 1986 - Definitions, Occupier, Environmental pollution, handling of hazardous substance, offences by companies, penalties for contravention of the Act.

Unit 2: Air Pollution Act,1982 - Definition, Occupier, Air Pollution, Chimney, Approval Fuel, Emission, Powers & functions of Central & State Boards, role of approved laboratories, offences by companies, penalties & procedures.

Unit 3: Water Pollution Act, 1974 - Definitions, sewage effluent, trade effluent, outlet, stream. Powers & functions of Central State Boards, role of approved laboratories, Offences by Companies, Penalties & Procedures.

Unit 4: Noise Pollution - Definition of sound & noise, sources of noise, measurement of noise, effect of noise, Physiological, Psychological & behavioural, noise control.

Reference Books:

1. Indian Factories Act 1948, Universal Lexis Nexis.
2. Pollution Management in Industies-R.K.Trivedi
3. Environmental Industrial Pollution Control, P. R. Trivedi, Akashdeep Publishing House
4. Environmental Law Seventh Edition by Dr S C Shastri, Eastern Book Company
5. Environmental Law Sengar (Author), Dharmendra S (Author) Prentice Hall India Learning Private Limited
6. INDIAN ENVIRONMENTAL LAW, Shibani Ghosh (Author), The Orient Blackswan; First Edition

Semester – IV

CC11: Labour Law - IV

Course Outcomes

CO1	The students will be able to understand the regulations and provision included in Trade Union Act, 1936
CO2	The students will be able to understand the regulations and provision included in Payment of Bonus Act, 1965
CO3	The students will be able to understand the regulations and provision included in Payment of Gratuity Act, 1972
CO4	The students will be able to understand the regulations and provision included in Minimum Wages Act, 1948

Unit I: Trade Union Act, 1936 - Entire Act

Unit II: Payment of Bonus Act, 1965 - Entire Act

Unit III: Payment of Gratuity Act, 1972 - Entire Act

Unit IV: The Minimum Wages Act, 1948 - Entire Act

Reference Books:

1. P.L MALIK'S HANDBOOK OF LABOUR AND INDUSTRIAL LAW GENERIC BOOK
2. Industrial Law – J. K. Bareja, Galgotia Publications Pvt Ltd
3. Industrial Relations and Labour Laws for Managers SAGE Publications India Private Limited; First Edition
4. Labour laws for Managers – B.D. Singh
5. Industrial & Labour Laws – S. P. Jain, Dhanpat Rai & Co.; Standard Edition

CC12: Ethics in HRM

Course Outcomes

CO1	The students will be able to **learn and explain** various theories of ethics.
CO2	The students will be able to **differentiate** business and organisational ethics.
CO3	The students will be able to **relate** institutional framework for corporate governance is application
CO4	The students will be able to **learn and apply** ethical practices in human resource management.

Unit I: Ethics - An introduction, Concept of ethics, Values & Ethics – Meaning & Types of Values, Ethical Action–Morals, Morality, Moral development pyramid, Beliefs, Religiousness and Law. Ethical Decision Making - Normative Framework –Principle of personal benefit, Principle of Social Benefit, Principle of Neutralization, Categorical Imperative, Principle of Duty, Principle of Justice and Principle of Lawfulness. Approaches / Theories of ethics – Gandhian Approach, Friedman's Economic theory, Kant's Deontological theory, Mill & Bentham's Utilitarianism theory, Aristotle's Virtue based ethics and Narrative based ethics – Case studies on inspirational life stories of individuals.

Unit II: Business Ethics - Ethics in Business – Myth & Reality. The Indian Business scene, Ethical Concerns, LPG & Global trends in business ethics, Business ethics rating in India. Organizational Ethics – Organizations & Organisation culture, Types of Organization, Corporate code of ethics – Formulating, Advantages, implementation Professionalism and professional ethics code

Unit III: Business & Society - Business & its stakeholders, Social Responsibility – Concept of CSR, Public Policy approach & role of NGO, Environmental Ethics – concerns, issues & case studies. Corporate Governance - Objectives , issues, features, Corporate Governance codes – Cadbury report, CII recommendations ,Corporate Governance for public sector, Corporate Governance & Investment – ethical investing, Insider trading, Case studies – Tata Finance, Enron case & UTI case.

Unit IV: Ethical Issues in HRM - The Ethical Organisation in the Boundary less World Ethics in Recruitment and Selection, the Employment Interview, Nepotism. Occupational Testing and Psychometric Instruments: an Ethical Perspective; Ethics and Equality – Gender Bias, Sexual Harassment, Discrimination, Affirmative Action HRM and Employee Well-Being - Civil Liberties, Flexible Working Patterns, Presenteeism and the Impact of Long Working Hours on Managers, Dichotomy,

Professional Loyalty The New Pay: Risk and Representation at Work; Conditions of Worth and the Performance Management Paradox; Employee Participation and Involvement.

Reference Books:

1. Business Ethics – Concept & Practice - B. N. Agalgatti & R. P. Banerjee – (Nirali Publication)
2. Ethics in Business & Management - R. P. Banerjee (Himalaya Publication)
3. Business Ethics. by Crane – Pub. By Oxford Press
4. Corporate Governance & Business Ethics – (Text & Cases), U. C. Mathur, Macmillan India Ltd.
5. Business Ethics, C S V Murthy, Himalaya Publishing House
6. Ethics in Human Resource Management, Dr. Sinju Sankar, Discovery Publishing House Pvt Ltd

DSE04: Human Resource Information System

Course Outcomes

CO1	The students will be able **to learn and explain** steps in implementing HRIS.
CO2	The students will be able **to identify** need for HRIS investment and implementation of HRIS.
CO3	The students will be able **to relate** application of HRIS in various domains of HR.
CO4	The students will be able **to understand** the current and future trends of HRIS.

Unit I: Introduction to Human Resource Information System (HRIS), The Concept of HRIS, The role of IT, Database concepts and applications in HRIS, Steps in implementing an HRIS, Benefits and limitations of HRIS

Unit II: Determining HRIS needs: HRIS needs analysis, System design and acquisition, HR metrics and workforce analytics, Costs justifying HRIS investment. Resource Information System implementation and acceptance: HRIS Project management, Change management, implementation, integration, maintenance of HRIS

Unit III: HRIS Applications: HR administration and HRIS, Talent management, Job analysis and Human Resource Planning, Recruitment and Selection in the Internet context, Training issues in HRIS, Performance management, Compensation and HRIS.

Unit IV: Key issues in HRIS: Information Security and privacy in HRIS, The future of HRIS, The Concept of HR Analytics and Digital HR

Reference Books:

1. Dr. Michael Kavanagh, Dr. Mohan Thite: Human Resource Information Systems- Basics, application, future and directions, SAGE Publications, Inc; Third edition
2. P.K.Gupta and Sushil Chaabra: Human Resource Information Systems, Himalaya Publishing House; First Edition
3. Badgi, Practical Guide to Human Resource Information Systems, Prentice Hall India Learning Private Limited; 1st edition
4. Raman Preet, Future of Human Resource Management: Case Studies with Strategic Approach, Wiley

DSE04: HR Accounting and Audit

Course Outcomes

CO1	The students will be able **to explain** Accounting and Reporting of Human Resource.
CO2	The students will be able **to differentiate** various methods of HR accounting.
CO3	The students will be able **to differentiate** various approaches of HR audit.
CO4	The students will be able **to learn and apply** HR Audit and Legal Compliances

Unit I: Human Resource Accounting: An Overview, Meaning, Need and Objectives of HR Accounting, Advantages and Limitations of Human Resource Accounting, Reporting of Human Resource Accounting at National Levels.

Unit II: Methods and Human Resource Accounting Practices in India: Methods of Human Resource Accounting: Cost of Production Approach, Historical Cost Model, Replacement Cost Model, Opportunity Cost. Capitalized Earnings Approach: Economic Value Model, Capitalization of Salary.

Unit III: Human Resource Audit: An Overview, Human Resource Audit - Meaning, Features, Objectives of HR Audit Benefits and limitations of HR Audit, Need and Significance of HR Audit. Process of HR Audit, Approaches of HR Audit, Principles of Effective HR Auditing, Role of HR Auditor, Methods of conducting HR Audit – Interview, Workshop, Observation, Questionnaire., Components of HR Audit

Unit IV: HR Audit for Legal Compliance and Safe Business Practices: Areas covered by HR Audit - Pre-employment Requirements, Hiring Process, New-hire, Orientation Process, Workplace Policies and Practices, HR Audit as Intervention - Introduction, Effectiveness of Human Resource Development.

Reference Books:

1. Rakesh Chandra Katiyar, Accounting For Human Resources , UK Publishing
2. M. Saeed, D.K. Kulsheshtha , Human Resource Accounting, Anmol Publications.
3. D. Prabakara Rao, Human Resource Accounting, Inter India Publications
4. Human Resource Management by Gary Dessler, Pearson Publications

For all courses the question paper pattern shall as follows-

N.B. **1) All questions are compulsory**

2) All questions carry equal marks (16 marks each)

Q.1 (From Unit 1)

A OR B

Q.2 (From Unit 2)

A OR B

Q.3 (From Unit 3)

A OR B

Q.4 (From Unit 4)

A OR B

Q.5 Write Short Notes on – (4 x 4 =16)

A (From unit I)
B (From unit II)
C (From unit III)
D (From unit IV)

M.COM (Computer Management)
W.E.F.2023-24

Program Specific Outcomes

PSO 1	The student will be able to transform complex business scenarios and contemporary issues into problems, investigate, understand and propose integrated solutions using emerging technologies.
PSO 2	Design and development of solutions by applying computer skills, knowledge of quantitative techniques in computer and management applications in practice.
PSO 3	The student will be able to develop a product or process by applying knowledge of programming, web, database, human computer interaction, and networking & security tools.
PSO 4	The student will be able to contribute to research in their chosen field, function, and communicate effectively, to perform both individually and in a multi-disciplinary team.
PSO 5	The student will be able to make decisions related to work that demonstrate intellectual curiosity, a commitment to lifelong learning in students and understanding of being an ethical computing professional with societal and environmental concerns.

Teaching and Examination Scheme

A teaching and examination scheme for students admitted to the M. Com. (Computer Management) Program shall be as follows:

Master of Commerce (Computer Management)
Semester I

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Python Programming		4	-	4	80	-	20	100	40	4
2.	Core	Practical Python Programming		-	8	8	-	100	-	100	50	4
3	Core	Cloud Computing		4	-	4	80	-	20	100	40	4
4.	Elective	Practical Advance Java OR Practical React JS OR MOOC		-	8	8	-	100	-	100	50	4
5.	Core	Research Methodology		4	-	4	80	-	20	100	40	4

				12	16	28	240	200	60	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

7. TH = Theory, CIE= Continuous Internal Evaluation
8. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Computer Management)
Semester II

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	ASP.Net		4	-	4	80	-	20	100	40	4
2.	Core	Practical ASP.Net		-	8	8	-	100		100	50	4
3	Core	Information Security & Cyber Law		4	-	4	80	-	20	100	40	4
4.	Elective	Practical Android Programming OR Practical Angular JS OR MOOC		-	8	8	-	100		100	50	4
5.	Core	On Job Training		-	8	8	-	100	-	100	50	4
				8	24	32	160	300	40	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Computer Management)
Semester III

		Subjects		Teaching Scheme	Examination Scheme	Credits

Sr. No.	Course Type		Course Code	Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Advance Database Management System		4	-	4	80	-	20	100	40	4
2.	Core	Practical – SQL & PL/SQL		-	8	8	-	100	-	100	50	4
3.	Core	Management Information System		4	-	4	80	-	20	100	40	4
4.	Elective	Data Communication & Computer Network OR Intelligent System (AI) OR MOOC		4	-	4	80	-	20	100	40	4
5.	Core	Research Project		-	8	8	-	100	-	100	50	4
				12	16	28	240	200	60	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Computer Management)
Semester IV

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max. Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Software Engineering		4	-	4	80	-	20	100	40	4
2.	Core	Mobile Computing		4	-	4	80	-	20	100	40	4
3.	Core	Big Data & Hadoop		4	-	4	80	-	20	100	40	4

4.	Elective	Practical Ruby on Rail OR Practical Web with Word Press OR MOOC		-	8	8	-	100	-	100	50	4
5.	Core	Research Project		-	12	12	-	100	-	100	50	6
				12	20	32	240	200	60	500	250	22

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

QUESTION PAPER PATTERN

First / Second / Third / Fourth Semester

Master of Commerce (Computer Management) - M.Com.(CM)

OB & CBCS Examination

Time: 3 Hours **Total Marks: 80**

N. B. - a) Draw well labeled diagram wherever necessary.

b) All questions are compulsory.

Q1. **8 x 2 = 16**

N. B. – 1. Each question carries two marks.

2. Answers should not more than five lines.

A. Unit I

B. Unit I

C. Unit II

D. Unit II

E. Unit III

F. Unit III

G. Unit IV

H. Unit IV

Q2. **8 x 3 = 24**

N. B. – 1. Each question carries three marks.

2. Answers should not more than ten lines.

A. Unit I

B. Unit I

C. Unit II

D. Unit II

E. Unit III

F. Unit III

G. Unit IV

H. Unit IV

N. B. – 1. Each question carries five or ten marks.

2. Answers should not more than 250 words for 5 marks questions and 600 words for 10 Marks questions respectively.

Q3. **Either**

(A) 5 Unit I

(B) 5 Unit I

OR

(C) 10 Unit I

Q4. **Either**

(A) 5 Unit II

(B) 5 Unit II

OR

(C) 10 Unit II

Q5. **Either**

(A) 5 Unit III

(B) 5 Unit III

OR

(C) 10 Unit III

Q6. **Either**

(A) 5 Unit IV

(B) 5 Unit IV

OR

(C) 10 Unit IV

Master of Commerce (Computer Management) – M.Com(CM)

Semester – I

Paper – 1

Course Code – **Course Name – Python**

	Learning Outcome
LO1	Given information on different types of programming languages so that Students will be able to **distinguish** the high-level language and **understand** the benefits of using python for development of application program.
LO2	Given information on control statements of program student will be able to understand the program flow and will able to **implement** various control statement and functions for effective code design.
LO3	Given information on advance program structure Students will able to **interpret** multiple data structured elements while developing real life application for business solution.
LO4	Given information on basics of object oriented programming student will be able **create and use** different types of objects, classes and File handling operations for redesigning the program structure.

UNIT - I

The Way of the Program - The Python Programming Language, What Is a Program?, What Is Debugging?, Syntax Errors, Runtime Errors, Semantic Errors, Experimental Debugging, Formal and Natural Languages, The First Program. **Variables, Expressions, and Statements** - Values and Types, Variables, Variable Names and Keywords, Operators and Operands, Expressions and Statements, Interactive Mode and Script Mode, Order of Operations, String Operations, Comments. **Functions** - Function Calls, Type Conversion Functions, Math Functions, Composition, Adding New Functions, Definitions and Uses, Flow of Execution, Parameters and Arguments, Variables and Parameters Are Local, Stack Diagrams, Fruitful Functions and Void Functions, Why Functions?, Importing withfrom.

UNIT - II

Conditionals and Recursion - Modulus Operator, Boolean Expressions, Logical Operators, Conditional Execution, Alternative Execution, Chained Conditionals, Nested Conditionals, Recursion, Stack Diagrams for Recursive Functions, Infinite Recursion, Keyboard Input. **Fruitful Functions** - Return Values, Incremental Development, Composition, Boolean Functions, More Recursion, Leap of Faith, One More Example, Checking Types. **Iteration** - Multiple Assignment, Updating Variables, The while Statement, break, Square Roots, Algorithms, Debugging. **Strings** - A String Is a Sequence, len, Traversal with a for Loop, String Slices, Strings Are Immutable, Searching, Looping and Counting, String Methods, The in Operator, String Comparison.

UNIT - III

Lists - A List Is a Sequence, Lists Are Mutable, Traversing a List, List Operations, List Slices, List Methods, Map, Filter, and Reduce, Deleting Elements, Lists and Strings, Objects and Values, Aliasing, List Arguments. **Dictionaries** - Dictionary as a Set of Counters, Looping and Dictionaries, Reverse Lookup, Dictionaries and Lists, Memos, Global Variables, Long Integers. **Tuples** - Tuples Are Immutable, Tuple Assignment, Tuples as Return Values, Variable-Length Argument Tuples, Lists and Tuples, Dictionaries and Tuples, Comparing Tuples, Sequences of Sequences.

UNIT - IV

Files – Persistence, Reading and Writing, Format Operator, Filenames and Paths, Catching Exceptions, Databases, Pickling, Pipes, Writing Modules. **Classes and Objects** - User-Defined Types, Attributes, Rectangles, Instances as Return Values, Objects Are Mutable, Copying. **Classes and Functions** – Time, Pure Functions, Modifiers, Prototyping Versus Planning. **Classes and Methods** - Object-Oriented Features, Printing Objects, Another Example, A More Complicated Example, Theinit Method, The str Method Operator Overloading, Type-Based Dispatch, Polymorphism, Debugging, Interface and Implementation. **Inheritance** - Card Objects, Class Attributes, Comparing Cards, Decks, Printing the Deck, Add, Remove, Shuffle, and Sort, Inheritance, Class Diagrams, Debugging, Data Encapsulation.

Text Book:

1. Allen B. Downey, Think Python, Shroff Publishers, O'Reilly.

Reference Books:

1. Charles Dierbach, Introduction to Computer Science using Python, Wiley.
2. Laura Cassell & Alan Gauld. Python Projects, Wrox A WileyBrand.
3. Paul Greis, Jennifer Campbell, Jason Montojo, Practical Programming - An Introduction to Computer Science using Python, ShroffPublishers.

Practical List of Python

1. Write a Python program to convert the given temperature from Fahrenheit to Celsius and vice versa depending upon users choice.
2. Write a Python program that allows the user to enter any integer base and integer exponent, and displays the value of the base raised to that exponent.
3. Write a Python program to calculate total marks, percentage and grade of a student. Marks obtained in each of the three subjects are to be input by the user. Assign grades according to the following criteria:

   Grade A: Percentage >=80

   Grade B: Percentage>=70 and <80

   Grade C: Percentage>=60 and <70

   Grade D: Percentage>=40 and <60

   Grade E: Percentage<40

4. Write a Python program to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user using user-defined function.
5. Write a Python program to swap two variables
6. Write a Python program to input any 10 numbers and calculate their average using user defined function?
7. Write a Python Program to Check if a Number is Positive, Negative or 0
8. Write a Python Program to Check if a Number is Odd or Even
9. Write a Python program to find the largest number among the three input numbers

10. Write a Python Program to Display the multiplication Table
11. Write a Python program to print current date and time. In addition to this, print each component of date(i.e.year,month,day) and time (i.e.hours, minutes and microseconds) separately.
12. Write a Python program to calculate the subtraction of two compatible matrices ?
13. Write a Python program to print first 10 prime numbers.
14. Write a Python Program to Check Whether a String is Palindrome or Not
15. Write a Python Program to Convert Decimal to Binary, Octal and Hexadecimal
16. Write a Python Program to Sort Words in Alphabetic Order.
17. Write a Python Program to Find Sum of Natural Numbers Using Recursion
18. Write a Python Program to Print the Fibonacci sequence
19. Write a Python Program to Convert Kilometers to Miles
20. Write a Python Program to Find the Square Root

Paper – II

Course Code - **Course Name: Cloud Computing**

Learning Outcome	
LO1	Given information on basics of Cloud Computing, students will be able to **understand** the different paradigms, also able to **define** fundamental terminologies of Cloud Computing.
LO2	Given information on architecture and deployment model, students will be able to **remember** structure and the use of Cloud management with its types.
LO3	Given information on various cloud service models students will be able to **differentiate** and illustrate its Virtualization.
LO4	Given information on service providers, students will be able to **describe** the cloud service Model and understand the importance of its service providers.

UNIT-I

Computing Paradigms: High-Performance Computing, Parallel Computing, Distributed Computing, Cluster Computing, Grid Computing, Cloud Computing, Bio computing, Mobile Computing, Quantum Computing, Optical Computing, Nano computing, Network Computing.

Cloud Computing Fundamentals: Need for Cloud Computing, Defining Cloud Computing; Network Computing Cloud Computing as a Service, Cloud Computing as a Platform, Principles of Cloud computing, Essential Characteristics, Requirements for cloud services, Benefits and Drawbacks of cloud computing.

UNIT-II

Cloud Computing Architecture and Management: Cloud architecture, Anatomy of the Cloud, Network Connectivity in Cloud Computing, Cloud Applications, Managing the Cloud-Cloud Infrastructure and Cloud application, Migrating Application to Cloud, Phases of Cloud Migration, Approaches for Cloud Migration, **Cloud deployment model-** Characteristics, Types of Deployment -Private, Public, community and hybrid.

UNIT-III

Cloud Service Models: Infrastructure as a Service, **IaaS-** Characteristics, Suitability, Pros and Cons, Summary of IaaS Providers, Platform as a Service **PaaS-** Characteristics, Suitability, Pros and Cons, Summary of PaaS Providers, Platform as a Service, Software as a Service. **SaaS** Characteristics, Suitability, Pros and Cons, Summary of SaaS Providers, Platform as a Service, Other Cloud Service Models. **Virtualization**: Opportunities, Approaches to virtualization.

UNIT-IV

Cloud Service Providers: EMC, EMC IT, Captiva Cloud Toolkit, Google, Cloud Platform, Cloud Storage, Google Cloud Connect, Google Cloud Print, Google App Engine, Amazon Web Services, Amazon Elastic Compute Cloud, Amazon Simple Storage Service, Amazon Simple Queue, service, Microsoft, Windows Azure, Microsoft Assessment and Planning Toolkit, SharePoint, IBM, Cloud Models, IBM Smart Cloud, SAP Labs, SAPHANA Cloud Platform, Virtualization Services Provided by SAP, Sales force, Sales Cloud. **Service Cloud:** Knowledge as a Service, Rack space, VMware, Manjra soft, Aneka Platform.

Text Book:

1. Essentials of cloud Computing: K. Chandrasekhran, CRCpress,2014

Reference Book:

1. Cloud Computing: Principles and Paradigms by Rajkumar Buyya,James Broberg and Andrzej M. Goscinski, Wiley, 2011.
2. Cloud Computing: A Practical Approach, Anthony T.Velte, Toby J.Velte, Robert Elsenpeter, Tata McGraw Hill, 2011.
3. Cloud Computing: Implementation, Management and Security, John W. Rittinghouse, James F.Ransome, CRC Press, 2012.

Paper – III

Course Code **Course Name – Advance Java**

	Learning Outcome
LO1	Given information on the use of connectivity (JDBC) and networking which helps for client server application, students will be able to **create** management applications practices emphasized for network based client server application.
LO2	Given information is used for creation of enterprise edition work with servlet's and session tracking mechanism; students will be able to **develop** the solution for human computer interaction.
LO3	Given information on event handling and Java Server Pages, students will able to **design** and **create** the web by using action tags with the help of JSP API
LO4	Given information on Extensions and Standard Tags library students will be able to Apply advance Tags in their web pages and able to **design** and **develop** the application by using technologies.

UNIT - I

Introducing Swing – JFC, The MVC Architecture, Applet, Window Panes, Important Classes of the javax.swing Package, Setting the Look and Feel of Components, An Applet with Swing Components. **Working with JDBC** - Introducing JDBC, Exploring JDBC Drivers, Exploring the Features of JDBC, Describing JDBC APIs, Exploring Major Classes and Interfaces, Exploring JDBC Processes with the java.sql Package, Working with Transactions. **Network Programming** - Networking Basics, Network Programming in Java Using the java.net Package, Establishing the two-way Communication between Server and Client, Retrieving a file at server, Learning the DatagramSocket and DatagramPacket Classes, Understanding the Content and Protocol Handlers.

UNIT - II

RMI, Naming Service, Serialization, and Internationalization - RMI Architecture, RMI Registry, Dynamic Code Loading in RMI, RMI API, Creating a Distributed Application, using RMI, Naming Services, Directory and Naming Services Overview of JNDI, Object Serialization, Internationalization, Java and Internationalization, internationalizing Web Applications. **Introducing the Java EE Platform** - Enterprise Application Concepts, Introducing the Java EE 6 Platform, HTTP Protocol, Exploring Web Application, Introducing Web and Application Servers. **Working with Servlets** - Exploring the Features of Java Servlet, Exploring New Features in Servlet 3.0, Exploring the Servlet API, Explaining the Servlet Life Cycle, Understanding Servlet Configuration, Creating a Sample Servlet, Creating a Servlet by using Annotation, Working with ServletConfig and ServletContext Objects, Working with the HttpServletRequest and HttpServletResponse Interfaces, Exploring Request Delegation and Request Scope, Describing a Session, Introducing Session Tracking, Exploring the Session Tracking Mechanisms, Using the Java Servlet API for Session Tracking.

UNIT - III

Introducing Event Handling and Filters - Introducing Events, Intoducing Event Handling, Working with the Types of Servlet Events, Introducing Filters, Exploring Filter API, Configuring a Filter, Creating a Web Application Using Filters, Using Initializing Parameter in Filters, Manipulating Responses, Discussing Issues in Using Threads with Filters. **Working with JavaServer Pages (JSP)** - Introducing JSP Technology, Exploring New Features of JSP 2.1, Listing Advantages of JSP over Java Servlet, Exploring the Architecture of a JSP Page, Describing the Life Cycle of a JSP Page, Working with JSP Basic Tags and Implicit Objects, Working with Action Tags in JSP, Exploring the JSP Unified EL, Using Functions with EL

UNIT - IV

JSP Tag Extensions and Standard Tag Library - Exploring the Elements of Tag Extensions, Exploring the Tag Extension API, Working with Classic Tag Handlers, Working with Simple Tag Handlers, Working with JSP Fragments, Working with Tag Files, Introducing JSTL, Working with the Core Tag Library, Working with the XML Tag Library, Working with the

Internationalization Tag Library, Working with the SQL Tag Library, Working with the Functions Tag Library. **Introducing Hibernate** - Introducing Hibernate, Exploring the Architecture of Hibernate, Downloading Hibernate, Exploring HQL, Understanding Hibernate O/R Mapping, Working with Hibernate, Implementing O/R Mapping withHibernate.

Text Book:

1. Prof. M. T. Savaliya, Advance java Technology, DreamtechPress.

Reference Books:

1. Dr. Ashwin Mehta, Sarika Shah, Advance Java for Students, ShroffPublishers.
2. Patrick Naughton & Herbert Schildt, The Complete Reference: Java 2, McGraw- Hill.
3. Joseph Weber, Using Java 2 Platform, Prentice Hall ofIndia.
4. Uttam K. Roy, Advance Java Programming, OxfordUniversity.
5. Kanika Lakhani, Advance Java Programming, KatsonBooks.

Practical List of Advance Java

1. Write a Java program to develop an applet that draws a circle. The dimension of the applet should be 500 x 300 pixels. The circle should be centered in the applet and have a radius of 100 pixels. Display your name centered in a circle.(using drawOval() method).
2. WriteaJavaprogramtodrawtenredcirclesinaverticalcolumninthecenterofthe applet.
3. Write a Java program to develop calculator-using Swing and add image on Button.
4. Write a Java program to find the IP address or computer name of local machine.
5. Write a Java program with class Greeting Client is a client program that connects to a server by using a socket and sends a greeting, and then waits for a response.
6. Write a Java program that implements a simple client/server application. The client sends data to a server the server receives the data, uses it to produce a result and then sends the result back to the client. The client displays the result on the console. For ex the data send from the client is a numbers and the result produce by the server is the addition of that number.

7. Write a Java program to create an application that displays a frame with a menu bar. When a user selects any menu or menu item, display that selection on a text area in the center of the frame.
8. Write RMI application where client supplies data to withdraw and server response with new account balance. Provide your custom security policy for this application.
9. Write a Java program to develop database application that allows user to Insert, Update, Delete values in a Table and manages appropriate exception handling when wrong values are enter.
10. WriteaJavaprogramtopresentasetofchoiceforusertoselectaproductand display the price of product.
11. Write a Java program to show validation of user using servlet.
12. Write a Java program to develop a simple servlet question answer application
13. Write a Java program to pass any URL string and display all 4 elements of URL string.
14. Write a Java program to trap all the events of mouse listener interface.
15. Write a Java program to show validation of user using JSP.
16. Write a Java program to display message on browser using JSP.
17. Write a Java program to connect with the google.com and retrieve the html code of default webpage.
18. Write a Java program to present a set of choices for a user to select stationary products and display the price of product after selection from the list.
19. Write a Java program to demonstrate typical editable table, describing employee details for a software company.
20. Write a Java program to trap all the events of key listener interface.
21. Write a Java program of calling one servlet by another servlet.
22. Write a Java program to develop a simple servlet calculator application.
23. Write a Java program to set scope of beans.
24. Write a Java program to create a JSP application that accepts registration details from the student and stores the details into the database table.
25. Write a Java program to develop a JSP application that authenticate user login as per the registration details. If login success then forward user to the index page otherwise show login failure message.

26. Write a Java program using split pane to demonstrate a screen divided into two parts contains a name of planets and another display the image of planet. When user selects the planet name from the left screen appropriate image of display in right screen.
27. Write a Java program to develop a web application to add items in the inventory using JSP.
28. Write a Java program to create a web Form, which processes servlet and demonstrates use of cookies and sessions.
29. Write a Java program to develop a simple JSP program for user login form with static and dynamic database.
30. Write a Java program to develop a JSP program to display the grade of a student by accepting the marks of five subjects.

Paper – III

Course Code **Course Name – React JS**

	Learning Outcome
LO1	Given information on ECMS script student will be able to **understand** the basic concept of scripting language as well as able to **use** functions in the program
LO2	Given information on React JS basic concepts students will be able to remember the directory structure and nested elements of JSX
LO3	Given information on props & state, components and routing student will be able to **create** components and **apply** them in their program.
LO4	Given information and form & user input and hooks students will be able **design** Form, **create** and **apply** custom hooks in their application.

UNIT – I

Introduction of ECMS script: Introduction var, let & const, Arrow function, setTimeout & clearTimeout method, setInterval &,clearInterval mthods, map function, filter function, join function, callback function, spread operator, reduce function, rest function, sort function, classes, properties and method, import and export

UNIT – II

Introduction of React JS: About ReactJs, server requirements, node Js & NPM, Webpack, Babel & JSX, Directory Structure; **Introduction of JSX**- Basic Concept, nested elements in JSX, JSX attributes, JSX Comments

UNIT – III

Props & States: Introduction, default props, props types, basic states, common Anti-pattern, SetState, State, Events & Managed controls; **Components**: Class components, functional components; **Routing**: Installation of React Routing, Create components, Add a route

UNIT – IV

Forms and User Input: controlled components, uncontrolled components; **Hooks**: UseState & State updating, multiple states, rules of Hooks, useEffect, custom Hook

Reference Books

1. Learning React: Modern Patterns for Developing React Apps 2nd Edition by Alex Banks & Eve Porcello
2. React Key Concepts: Consolidate your knowledge of React's core features by Maximilian Schwarzmuller
3. The Road to React: Your journey to master plain yet pragmatic React.js by Robin Wieruch
4. React and React Native: Build cross-platform JavaScript applications with native power for the web, desktop, and mobile, 4th Edition 4th ed. Edition by Adam Boduch, Roy Derks and Mikhail Sakhniuk
5. React.js Complete Guide To Server-Side Rendering (Front-end development) by Gerard van der Put
6. Learn React Hooks: Build and refactor modern React.js applications using Hooks by Daniel Bugl

Practical List React JS

1. Write a program to Build Search filter in React - React code to build a simple search filter functionality to display a filtered list based on the search query entered by the user.
2. Write a program to create Simple counter exercise - Creating a simple counter using React which increments or decrements count dynamically on-screen as the user clicks

on the button. This exercise requires knowledge of fundamental React concepts such as State, Component, etc.

3. Write a program to Display a list in React - React code to print each item from the list on the page using Array.map() function to display each item on the page.
4. Write a program to Build Accordion in React - Creating an accordion that toggles text content on click of the accordion header using React State and conditional rendering.
5. Write a program to create Image Slider using React JS - React exercise to create an image slide, where users can view multiple images with next/previous buttons. Additionally, there is also an option to select an image from any index of the list through a click-on option circle.
6. Write a program to Create a Checklist in React - React code to display a checklist with multiple options that can select and the selected options are dynamically displayed on the screen. React State is used to keep track of checked options and onChange() Event handler is triggered to alter the state whenever an option is checked or unchecked.
7. Write a program to create Simple Login form in React - React code for simple login form where the user login by entering their username and password. The form inputs are validated to check if correct information is entered and the error messages are the validation fails. The login form is hidden and the "Welcome, ${name}" message is shown when the user login is successful.
8. Write a program to Print data from REST API - React code to collect data from rest API using fetch() in JavaScript combined with useEffect() to load the content on page render.
9. Write a program to create a Multi-Page navigation using React Router - React code to develop a multipage application with navigation for Home, About and Blog pages. The route-based component rendering is implemented using the "react-dom" npm package to allow users to navigate to different pages and render the component with respect to the route.
10. Write a program to create Context API in React Components - Context allows values to be passed from multiple levels of child components without using props. Thus context can be used as an alternative to Redux in some of the cases.
11. Write a program to Create simple Calculator: Create Simple calculator in React
12. Write a program to Create Image Search: Create image search using ReactJs and Unsplash Developer API.

13. Write a program to create Youtube Search: Youtube Video Search in React
14. Write a program to Create Todo List: Create Todo List in React.
15. Write a program to Integrate Bootstrap framework with React and Create Simple Registeration Form
16. Write a program to Integrate Material UI framework with React and Create Simple Registeration Form
17. Create React Fully Responsive Website: Build a fully responsive website in ReactJS, viewable in desktop, mobile, tablet.
18. Create Static Website: Create a static website by creating reusable components like button, cards, container, icons
19. Create Weather App: Create Weather App by using free OpenWeather.
20. Create React Password Generator: Generate strong password using ReactJS.

Semester – II

Paper – 1

Course Code – **Course Name – ASP.Net**

	Learning Outcome
LO1	Given information on **development** and **deployment** cycles of enterprise applications so that Students will be able to understand the ASP.NET frame work to and enhance the web page with the combination of advance web designing tools(CSS3, HTML5)build distributed enterprise application
LO2	Given information to **understand** server controls like secure protocols and also **examine** the entered data on the web page which helps to handle Master page with cookies.

LO3	Given information to **access** the backend (database)with suitable connectivity controls and **deploy** a secure client server in real life application with customized web page like secure web access methods
LO4	Given information will **deploy** the web application by application interface control and WCF services so that Students will be able to **create** dynamic web applications using a combination of client-side (JavaScript, HTML, XML, WML) and server-side technologies (ASP.NET, ADO.NET).

UNIT – I

An introduction to ASP.NET programming: An introduction to web applications, An introduction to ASP.NET development. **How to develop a one-page web application**: How to work with ASP.NET web sites; How to use Visual Studio to build a web form, How to add validation controls to a form, How to add C# code to a form, How to test a web application. **How to use HTML5 and CSS3 with ASP.NET applications**: The Future Value application with CSS formatting, The HTML and CSS skills that you need. **How to develop a multi-page web application**: How to work with multi-page web sites, How to use session state. **How to test and debug ASP.NET applications**: How to test an ASP.NET web site, How to use the debugger, How to use the trace feature.

UNIT –II

How to use the standard server controls: How to use the common server controls, How to use the button controls, How to use the list controls. **How to use the validation controls**: Introduction to the validation controls, How to use the validators, Validation techniques. **How to work with state, cookies, and URL encoding**: How to use view state, How to use session state, How to use application state and caching, How to use cookies and URL encoding. **How to use master pages**: How to create master pages, How to create and develop content pages, How to customize content pages. **How to use themes**: An introduction to themes, How to work with themes and skins. **How to use site navigation and ASP.NET routing**: How to use the navigation controls, How to use ASP.NET routing, How to use the navigation controls with ASP.NET routing.

UNIT – III

An introduction to database programming: An introduction to relational databases, An introduction to ADO.NET 4.5, How to use the DataList control, How to use data binding, How to customize the GridView control, How to use the DetailsView control , How to use the FormView control. **How to use object data sources with ADO.NET**: An introduction to object data sources, How to create a data access class, A Category Maintenance application. **How to secure a web site**: An introduction to SSL, How to use a secure connection. **How to authenticate and authorize users**: An introduction to authentication, How to set up authentication and authorization, How to use the login controls. **How to use email, custom error pages, and back-button control**: How to send email, How to use custom error handling, How to handle the back-button problem.

UNIT – IV

How to configure and deploy ASP.NET applications: How to use the Web Site Administration Tool, An introduction to deployment, How to use one-click deployment, How to create and use a Setup program. **How to use ASP.NET Ajax**: An introduction to Ajax, An introduction to ASP.NET Ajax, How to use the ASP.NET Ajax server controls, An application that uses ASP.NET Ajax. **How to create and use WCF and Web API services**: An introduction to web services, How to create a WCF service, How to create a web site that consumes a WCF service, How to create a Web API service, How to create a web site that consumes a Web API service. **An introduction to ASP.NET MVC**: An introduction to MVC, An introduction to ASP.NET MVC, How to work with views, How to work with controls and postbacks.

Text Book:

1. Mary Delamater & Anne Boehm, murach's ASP.Net Web Programming with C#, Shroff Publishers.

Reference Books:

1. ASP.Net Black Book, Kogent Learning Solutions Inc, Dreamtech Press.
2. Jason Gaylord, Christian Wenz, Pranav Rastogi, Todd Miranda, Scott Hanselman, Professional ASP.Net in C# & VB, Wrox A Wiley Brand.
3. ASP.Net with C#, Kogent Learning Solutions Inc, Dreamtech Press.

Practical List of ASP.Net

1. Create a page in ASP.NET using VB.NET or C# to display the following Web Controls:
   - A button with text —click mel. The button control must be in the center of the form.
   - A label with a text hello
   - A checkbox. The form name must be Web Controls.
2. Create a page in ASP.NET using VB.NET or C# containing the following controls:
   - A ListBox
   - A Button
   - An Image
   - A Label

   The listbox is used to list items available in a store. When the user clicks on an item in the listbox, its image is displayed in the image control. When the user clicks the button, the cost of the selected item is displayed in the control.
3. Create a page in ASP.NET using VB.NET or C# that take a student name from the user, add that name in list-box control. And delete the chosen name from the list-box.
4. Create a page in ASP.NET using VB.NET or C# for book sales. Enter the quantity, title and price of the book. Calculate the extended price, discount (15%) and after discount, the actual price of the book. Show the summery of book sales. (Like total no of books, total discount given, total discounted amount and average discount.) You will need command buttons- calculate, clear sale.
5. Create a page in ASP.NET using VB.NET or C# using HTML Server controls that take user name, address, and city, state and country name from the user and display it.
6. Create a page in ASP.NET using VB.NET or C# to get a user input such as the boiling point of water and test it to the appropriate value using Compare Validator
7. Create a page in ASP.NET using VB.NET or C# that uses a textbox for a user input name and validate it for RequiredField Validation.
8. Create a page in ASP.NET using VB.NET or C# that gets user input such as the user name, mode of payment, appropriate credit card. After the user enters the appropriate values the Validation button must validates the values entered.
9. Create a page in ASP.NET using VB.NET or C# to declare one TextBox control, one Button control, one Label control, and one RegularExpressionValidator control in an .aspx file. The submit() function checks if the page is valid. If it is valid, it returns "The

page is valid!" in the Label control. If it is not Valid, it returns "The page is not valid!" in the Label control. If validation fails, the text "The zip code must be 5 numeric digits!" will be displayed in the RegularExpressionValidator control.

10. Create a page in ASP.NET using VB.NET or C# using HTML Server controls that convert given currency into another selected currency. For that you need a dropdown-list.
11. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Inserting Data.
12. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Updating Data.
13. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Deleting Data
14. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Search Data.
15. Create a page in ASP.NET using VB.NET or C# to create a proxy.
16. Create a page in ASP.NET using VB.NET or C# that has a form taking the user"s name as input. Store this name in a permanent cookie & whenever the page is opened again, then value of the above field should be attached with the cookie's content
17. Create a page in ASP.NET using VB.NET or C# to run video
18. Create a page in ASP.NET using VB.NET or C# to delete all cookies of your web site that has created on the client's computer.
19. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Inserting Data.
20. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Updating Data.

Paper – II

Course Code – **Course Name – Information Security & Cyber Law**

Learning Outcome

LO1	Given information on information security and threats students will be able to **understand** structure, mechanics and evolution of various crime threats and able to **remember** the security mechanism.
LO2	Given information on various security mechanism, students will be able to **define** various security tools used to protect the data
LO3	Given information on IT Act 2000 students will be able to **illustrate** different terminologies used in IT Act 2000
LO4	Given information on various tools used in security, students will be able to **recognize** which tool is best suited in field.

UNIT - I

- Information Security : Overview, need for information security, objectives of Information security. - Global information systems and their evolution, basics of information systems, role of the Internet and the World Wide Web. - Understanding about the threats to information systems security Building blocks of InfoSec, How Organizations manage security of their information systems Information security risk analysis fundamentals. - Importance of physical security and biometrics controls for protecting information systems assets. - Security considerations for the mobile work force. - Network security perspectives, networking and digital communications (overview only), security of wireless networks.

UNIT - II

- Cryptographic techniques and Encryption, Intrusion Detection Systems and Firewalls,security of virtual private networks. - Security issues in application development with emphasis on integration of enterprise applications, database security, operating security and security of electronic mailing systems. - Security models and frameworks and standards through introduction to the ISO 27001, SSE-CMM (systems security engineering – capability maturity model), COBIT (Control Objectives for Information and related technologies) and the SarbanesOxley Act (SOX) and SAS 70 (statement on auditing standards). - Privacy fundamentals, business practice's impact on data privacy, technological impact on data privacy, privacy issues in web services and applications based on web services. - Information security best practices – staffing, audits, and disaster recovery planning and business continuity planning and asset management. - Ethical issues and intellectual property concerns for information security professionals – copy right, data protection etc. matters.

UNIT – III

- Introduction of IT Act 2000, main features of IT Act 2000, Digital Signature. - Access Control : Operating system Access Controls, Group and Roles, Access Control lists, Unix Operating System Security, Windows NT, Capabilities, Added Features in Windows 2000, Granularity, Sandboxing and Proof-carrying code,Hardware protection, Other technical Attacks. - Cryptography & PKI : Symmetric Cryptography, Asymmetric Cryptography, Keys, Hash Functions, Digital Signatures. - Distributed Systems - Concurrency, Fault Tolerance and Fault Recovery, Naming.

UNIT – IV

- Multilevel and Multilateral Security : Multilevel Security, Multilateral Security. - Electronic Banking –Banking and Bookkeeping. - Monitoring Systems –Introduction, Alarms, Prepayment Masters. - Biometrics : Physiological biometric techniques, behavioral biometric techniques, - New biometric techniques, biometric systems. - Incident Response : Incident Response, Prerequistes to planning an IRT. - Network attack and Defence : Most Common Attacks, Scripts Kiddies and Packaged Defence. - Management Issues : Organisational Issues, - Protecting E-commerce Systems – Introduction - Hacking – Introduction

Books Recommended

1. Information Systems Security Management - Nina S. Godbole (Wiley India Pvt. Ltd.)
2. Security Engineering - Ross Anderson
3. Information Security Management Handbook - Harold Tpton & Micki Krause (Auerbach Publications)
4. Network Security Essentials: Applications and Standards - W. Stallings (Pearson Education)
5. eSecurity and You - Sandeep Oberoi (Tata McGraw-Hill)
6. Cyber Laws – Singh Yatindra
7. Cyber Crime – Bansal S K
8. Cyber law , E-commerce & M-Commerce – Ahmand Tabrez
9. Handbook of Cyber and E-commerce laws – Bakshi P M & Suri R K
10. Management Fundamentals and Information Systems Dr. Sushila Madan (Taxmann's)

Paper – III

Course Code – **Course Name – Practical Android Programming**

	Learning Outcome
LO1	Given information on basics interface and architecture student will able to **develop** and **grasp** of the Android OS architecture (using various android views and view groups).
LO2	Given information on designing different themes for android application which help Students will able to **Understand** the handling the data by using external devices and also for the networking communication application.
LO3	Given information will help the students to **understand** the geographical locations on the maps with the help of geo-coding and reverse geo-coding as well as application will enrich with use of graphics and animation.
LO4	Given information will help Students to **Familiarize** with Android development by selecting tools for including device emulator, profiling tools and IDE as well as **Identity, analyze** data storage, retrieval, user preferences, files and content providers

UNIT - I

Getting an Overview of Android Introducing Android - Listing the Version History of Android Platform, Discussing Android APIs, Describing the Android Architecture Application Framework, Exploring the Features of Android, Discussing about Android Applications, The Application Components, The Manifest File, The Command-Line Tools, Developing and Executing the First Android Application, Using Eclipse IDE to Create an Application, Running Your Application, Exploring the Application, Using Command-Line Tools. **Using Activities, Fragments and Intents in Android** - Working with Activities, Creating an Activity, Starting an Activity, Managing the Lifecycle of an Activity, Applying Themes and Styles to an Activity, Displaying a Dialog in the Activity, Hiding the Title of the Activity, Using Intents, Exploring Intent Objects, Exploring Intent Resolution, Exploring Intent Filters, Resolving Intent Filter Collision, Linking the Activities Using Intent, Fragments, Fragment Implementation, Finding Fragments, Adding, Removing, and Replacing Fragments, Finding Activity Using Fragment, Using the Intent Object to Invoke Built-in Application. **Working with the User Interface Using Views and ViewGroups** - Working with View Groups, The LinearLayout Layout, The RelativeLayout Layout, The ScrollView Layout, The TableLayout Layout, The FrameLayout

Layout, The TabLayout Using the Action Bar, Working with Views, Using the TextView, Using the EditText View, Using the Button View, Using the RadioButton View, Using the CheckBox View, Using the ImageButton View, Using the ToggleButton View, Using the RatingBar View, Binding Data with the AdapterView Class, Using the ListView Class, Spinner, Using the Gallery View, Designing the AutoTextCompleteView, Implementing Screen Orientation, Anchoring the Views of the Current Activity, Customizing the Size and Position of the Views, Designing the Views Programmatically, Handling UI Events, Handling User Interaction with Activities, Handling User Interaction with the Views, Specialized Fragments, ListFragment, DialogFragment, PreferenceFragment, Creating Menus The Options Menu The Context Menu The SubMenus.

UNIT - II

Handling Pictures and Menus with Views - Working with Image Views, Displaying Images in the Gallery View, Displaying Images in the Grid View, Using the ImageSwitcher View, Designing Context Menu for Image View, Using the AnalogClock and DigitalClock Views, Embedding Web Browser in an Activity, Notifying the User Creating the Toast Notification, Creating the Status Bar Notification, Creating the Dialog Notification. **Storing the Data Persistently** - Introducing the Data Storage Options, Using Preferences, Using the Internal Storage Exploring the Methods Used for Internal Storage, Developing an Application to Save User Data Persistently in File, Using the External Storage Exploring the Methods Used for External Storage, Developing Application to Save File in SD Card, Using the SQLite Database Creating the Database Helper Class, Creating the Layout and Main Activity Class, Creating the Layout and Activity for the Insert Operation, Creating the Layout and Activity to Search a Record, Creating the Activity Class to Fetch All Records, Creating the Layout and Activity for the Update Operation, Creating the Layout and Activity for the Delete Operation, Executing the Database Operations, Working with Content Providers, Exploring the android.provider Package, Creating User-Defined Content Provider, Consuming User- Defined Content Provider. **Emailing and Networking in Android** - Building an Application to Send Email, Networking in Android, Going an Overview of Networking Fundamentals, Checking Network Availability, Accessing Web Services UsingHTTP Post, Accessing Web Services Using the GET Method, Working with Binary Data and Text Files, Consuming JSON Services, Sockets Programming.

UNIT - III

Working with Location Services and Maps - Working with Google Maps, Exploring Google Maps External Library, Creating an Application Using Google Maps Android API, Disabling the Zoom Control Button, Changing the Map Type, Displaying the Specific Location and Adding Markers, Handling Map Gestures Interaction, Getting the Current Location of a User, Working with Geocoding and Reverse Geocoding. **Working with Graphics and Animation** - Working with Graphics, Drawing Graphics to Canvas, Using the Drawable Object, Referencing an Image File, Defining Drawable in XML, Using the Shape Drawable Object, Working with the Nine Patch Drawable Graphics, Understanding the Concept of Hardware Acceleration, Working with Animations, The Property Animation, View Animation Drawable Animation. Audio, Video and Camera - Role of Media Playback Using Media Player Media Formats Supported by Media Player, Preparing Audio for Playback, Preparing Video for Playback, Creating Application to Play Audio and Video Using MediaPlayer, Recording and Playing Sound, Use of Media Store Audio Recording Application, Creating a Sound Pool Using Camera for Taking Pictures, Creating Video RecordingApplication.

UNIT - IV

Threads and Services - Introducing Threads Worker Threads Using AsyncTask, Introducing Services Exploring Services Essentials, Understanding the Lifecycle of a Service, Exploring the Service Class, Introducing the Service Class, Creating a Bound Service. **Bluetooth, NFC and Wi-Fi** - Working with Bluetooth Exploring the Android Bluetooth APIs, Permissions Required to Access Bluetooth, Setting Up the Bluetooth for an Application, Identifying the Bluetooth-Enabled Devices, Querying the Paired Devices, Discovering Devices Creating an Application Using Bluetooth Functionality, Connecting the Devices Using Bluetooth for Data Transfer, Connecting as a Server Connecting as a Client Working with Bluetooth Low Energy, Working with NFC, Exploring the Basics of NFC, Developing an Application Using NFC, Working with Wi-Fi - Exploring the Wi-Fi APIs, Creating an Application Using Wi-Fi. **Telephony and SMS** - Handling Telephony Displaying Phone Information Application Receiving Phone Calls Application, Making Outgoing Phone Calls Application, Handling SMS Sending SMS Using SmsManager, Sending SMS Using Intent, Receiving SMS Using the BroadcastReceiver Object, Role of Default SMS Providers. Hardware Sensors - Introducing

Sensors Exploring the Sensor Framework, Managing Various Sensor Configurations, Understanding the Sensor Coordinate System.

Text Book:

1. Rradeep Kothari, Android Application Development -- Black Book, Dreamtech Press.

Reference Books:

2. Prasanna Kumar Dixit, Android, Vikas Publishing.
3. Dawn Griffiths & David Griffiths, Head First Android Development, Shroff Publishers.
4. Ed Burnette, Hello Android, Shroff Publishers.
5. Jerome DiMarzio, Android – A Programmer's Guide, McGraw-Hill.
6. Dave MacLean, Satya Komatineni, Grant Allen, Pro Android 5, Apress.
7. Reto Meier, Professional Android Application Development, Wiley.

Practical List of Android Programming

1. Create —Hello Worldl android application. That will display —Hello Worldl in the middle of the screen in the red color with white background.
2. Write an android application to understand Activity, Intenta. Create sample application with login module. (Check username and password) and on successful login, go to next screen. And on failing login, alert user using Toast. Also pass username to next screen.
3. Create an android application that will change color of the screen and change the font size of text view using xml.
4. Create login android application where you will have to validate EmailID (UserName). Till the username and password is not validated, login button should remain disabled.
5. Create and login android application as above. On successful login, open browser with any URL.
6. Create an android application that will pass some number to the next screen, and on the next screen that number of items should be display in the list.
7. Create an android application that will change color of the screen, based on selected options from the menu.
8. Create an android application that will display toast (Message) on specific interval of time.

9. Create a android background application that will open activity on specific time.
10. Create an android application that will have spinner with list of animation names. On selecting animation name, that animation should affect on the images displayed below.
11. Create an android UI such that, one screen have list of all the types of cars. and on selecting of any car name, next screen should show Car details like : name, launched date, company name, images(using gallery) if available, show different colors in which it is available.
12. Write an android application to read phonebook contacts using content providers and display in list.
13. Write an android application to read messages from the mobile and display it on the screen.
14. Create an android application to call specific entered number by user in the EditText
15. Create an android application that will create database with table of User credential.
16. Create an android application to read file from asset folder and copy it in memory card.
17. Create an android application that will play a media file from the memory card.
18. Create an android application to make Insert, update, Delete and retrieve operation on the database.
19. Create an android application to read file from the sdcard and display that file content to the screen.
20. Create an android application to draw line on the screen as user drag his finger.
21. Create an android application to send message between two emulators.
22. Create an android application to take picture using native application.
23. Create an android application to pick up any image from the native application gallery and display it on the screen.
24. Create an android application to open any URL inside the application and clicking on any link from that URl should not open Native browser but that URL should open the same screen.
25. Create an android application that will create database with table of User credential.

Paper - III

Course Code – **Course Name – Angular JS**

Learning Outcome

LO1	Given information on basics of Angular JS student will be able to **design** the page and **apply** in real time applications
LO2	Given information on directives, controllers and modules student will be able to **Create** and **Use** while design their web page or web application
LO3	Given information on Forms and Dependency, students will be able to **design** Form with all validations and be able to **create** services.
LO4	Given information on application building student will be able to **create** single page application with animations

UNIT - I

Angular JS Basics - What is Angular JS? Why Angular JS? Why MVC matters, MVC-The Angular JS way Features of Angular JS, Model-View-Controller, My First Angular JS app.

Angular Expressions - All about Angular Expressions, How to use expressions, Angular vs JavaScript

Filters - Built-In Filters, Using Angular JS Filters, Creating Custom Filters

UNIT - II

Directives - Introduction to Directives, Directive Lifecycle, Binding controls to data, Matching directives, Using Angular JS built-in directives, Creating a custom directive

Controllers - Role of a Controller, Controllers & Modules, Attaching Properties and functions to scope, Nested Controllers, Using Filters in Controllers, Controllers in External Files

Angular JS Modules - Introduction to Angular JS Modules, Bootstrapping Angular JS

UNIT - III

Angular JS Forms - Working with Angular Forms, Model Binding, Forms Events, Updating Models with a Twist, Form Controller, Validating Angular Forms, $error object

Scope - What is scope, Scope Lifecycle, Scope Inheritance, Scope & Controllers, Root scope, Scope Broadcasting, Two-way data binding, Scope Inheritance, Scope & Directives, $apply and $watch, Scope Events

Dependency Injection & Services - What is Dependency Injection, Creating Services, Factory, Service & Provider, Using Dependency Injection, What are services. Using Angular JS built in services

UNIT - IV

Single Page Application (SPA) - What is SPA, Pros and Cons of SPA, Passing Parameters, Changing location, Installing the ng Route module, Configure routes, Resolving promises, creating a Single Page Apps

Angular JS Animation- Animate Module, CSS Transforms, CSS Transitions, Applying Animations

Reference Books

1. The Complete Guide to Angular Paperback – 6 February 2018 by Felipe Coury, Ari Lerner and Carlos Taborda
2. Angular in Action Paperback – Import, 2 April 2018 by Jeremy Wilken
3. Angular: From Theory To Practice: Build the web applications of tomorrow using the Angular web framework from Google. Kindle Edition by Asim Hussain
4. Angular 6 for Enterprise-Ready Web Applications: Deliver production-ready and cloud-scale Angular web apps 1st Edition, Kindle Edition by Doguhan Uluca
5. Angular: Up and Running: Learning Angular, Step by Step 1st Edition, Kindle Edition by Shyam Seshadri
6. Pro AngularJS (Expert's Voice in Web Development) Paperback – 7 April 2014 by Adam Freeman
7. Angular Development with TypeScript Paperback – 17 December 2018 by Yakov Fain and Anton Moiseev

Practical List of Angular JS

1. Design Order Form with a total price updated in real time, which contains name of five products and their prices. Create a bill amount for all the products, calculate GST on the billing amount, and display total amount.
2. Implement Angular JS to create your Resume.
3. Use Practical No.01 and initialize prices to 0 (zero) when form loads. (Use module, controller & directive).
4. Design a webpage which takes one number as an input and generate its factorial number (use module, controller).
5. Design a webpage, which takes inputs product name, product quantity and price. Generate table of entered values. When user clicks on table column title, it should sort that column values. (Use filter, array).
6. Design a webpage which display product name and product price using AngularJS $http Service from database. Display the content in tabular format.
7. Write a program to create notepad application using Angular JS
8. Write a program in Angular JS to create Navigation Menu that highlights the selected entry.
9. Write a program in Angular JS to create a simple inline editor - clicking a paragraph will show a tooltip with a text field.
10. Write a program in Angular JS to design an order form with a total price updated in real time, using filters.
11. Write a program in Angular JS to filter a list of items by typing into a text field
12. Write a program in Angular JS to change name using JS Controller.
13. Write a program in AngularJS to enter the text in the input field. & Angular JS will display an error message if the entered text is invalid.
14. Write a program in Angular JS to hide a Div by adding checkbox.
15. Write a program in Angular JS to print "Hello World"
16. Write a program in Angular JS to design cost calculator.
17. Write a program in Angular JS to change the color of input box by changing its value.

Annexure – III

DETAILS OF 'ON JOB TRAINING/SUMMER INTERNSHIP PROJECT', *'FIELD PROJECT', 'COMMUNITY ENGAGEMENT PROJECT' AND 'RESEARCH PROJECT'*

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[A] GUIDELINES FOR 'ON JOB TRAINING/SUMMER INTERNSHIP PROJECT/FIELD PROJECT /COMMUNITY ENGAGEMENT PROJECT

Semester II – 4 Credits

1. **Learning Outcomes**

CO1	Student will be able to construct and explain the company profile by compiling the brief history, management structure, products / services offered, key achievements and market performance for his / her organization of internship/OJT **OR** Student will be able to describe the UN SDG to which the *'Field Project'*, or *'Community Engagement Project'* is related.
CO2	For his / her organization of internship/OJT, the student will be able to assess its Strengths, Weaknesses, Opportunities and Threats (SWOT). **OR** Student will be able to list the goals, objectives or outcomes of the *'Field Project'*, or *'Community Engagement Project'* undertaken by him
CO3	Student will be able to determine the challenges and future potential for his / her internship/OJT organization in particular and the sector in general. **OR** Student will be able to describe the profile of respondents / community involved in the *'Field Project'*, or *'Community Engagement Project'* undertaken by him
CO4	Student will be able to correlate theoretical classroom learning and its application in practical situations by accomplishing the tasks undertaken during On Job Training/Summer Internship Project', 'Field Project', or 'Community Engagement Project'.
CO5	Student will be able to apply various soft skills such as time management, positive attitude, and communication skills during performance of the tasks assigned during On Job Training/Summer Internship Project', 'Field Project', or 'Community Engagement Project'
CO6	Student will be able to suggest improvements in processes/systems at the Organization(s)/Community where On Job Training/Summer Internship Project', 'Field Project', or 'Community Engagement Project' is undertaken

2. Every student admitted to M. Com. Second Semester is compulsorily required to undergo this course bearing 4 credits.
3. At the end of second semester, all students will have to undergo summer training of 6-8 weeks (120 Hours) with an industrial, business or service organization by taking a project study.
4. The condition of successfully completing the program shall not be deemed to have been satisfied unless a student undergoes summer training under the supervision of the department executive in organizations as approved by the Director/ Principal/ Head / Faculty from time to time. Alternatively, Director/ Principal/ Head / Faculty of the Department/ College/ Institute may allocate the sector/ industry/ company specific project to the individual student.
5. Each student will be required to submit a detailed report to the Department/ College/ Institute for the work undertaken during this period **within 7 days of completion of the training** following which the evaluation and assessment for OJT/SIP will be done by the college/institute concerned. The

Report submitted must be according to the Learning outcomes and in tune with the rubric for evaluation.

6. A student is also allowed to conduct a Field Project or Community Engagement Project in lieu of On Job Training. However, such a Filed or Community Engagement Project need to have a duration of 6-8 weeks (120 Hours) and a student is required to submit the report to college/institute as mentioned above.
7. College/Institute is required to assign Supervisor/Mentor to students for OJT/SIP/PF/CEP who will guide the students in attaining the outcomes of this course.
8. The College/Institute, on receipt of the report from student, shall immediately schedule the open defence seminar by a student.
9. The open defence seminar by a student shall be evaluated by the supervisor/mentor assigned to a student (as an internal examiner) and an external examiner appointed by the college/institute.
10. **Appointment of External Examiner:** It is desirable to appoint an external examiner from the company/organization where a student has completed his 'OJT/SIP/FP/CEP'. However, the Principal may appoint any other industry professional or subject expert as an external examiner. The remuneration (Rs. 100 per student), TA/DA or Conveyance Allowance to external examiner may be paid by the college/institute which will be reimbursed by the university as per established rules.
11. The Internal Examiner and External Examiner shall jointly evaluate the report submitted by the student and her/his seminar and shall immediately submit the evaluation report in the prescribed format provided along with.
12. The College/Institute shall submit marks obtained by students to the university as per prevalent system within 3 days of evaluation.

[A-1] EVALUATION REPORT OF SUMMER INTERNSHIP/ON JOB TRAINING

Master of Commerce (Major Subject) Examination, _____

Name of Student: _____

OJT/SIP Title: _____

Roll No._____ **Max. Marks: 100**

CRITERION	Parameters	Score out of 20
Description of Organizational Profile	Company profile, Historical evolution, Management structure, Organization structure, Products / services offered, Key achievements, Market performance	
Analysis of organization & Sector.	SWOT analysis, Key challenges & opportunities, Company Analysis, Sector Analysis, Competitive analysis	
Application of theoretical knowledge.	Details of the work done, Job Description, specification. Project implemented. Identify the various issues in organization and its processes.	
Conclusions and Recommendations	Specific Conclusions based on empirical evidences. Recommendations based on practical feasibility	
Feedback from organization.	Authentic Company Certificate of completion clearly classifying the performance of the student as **Excellent / Above Average** or **Good/ Average** or **Satisfactory /below average.**	

Total Marks Scored out of 100	
Name and Signature of Internal Examiner	Name and Signature of External Examiner

Rubric for Evaluation of Summer Internship/On Job Training

Criterion	Substantial Achievement (16-20 Marks)	Moderate Achievement (10-15 Marks)	Poor Achievement (0-9 Marks)
Description of Organizational Profile	Writes a clear description of company profile including its history, management structure, products/services offered, key achievements and market performance	Writes a limited description of company profile. However, a majority of the points are covered	Writes a very brief description of company profile excluding majority of the points
Analysis of Organization and Sector	Performance a SWOT analysis for the company and presents all the key challenges & opportunities of the sector in general and company in particular	A limited analysis of the company and the sector is performed. All the key elements of challenges & opportunities have not been identified	Is unable to perform a proper SWOT analysis and identify the challenges & opportunities of the sector in general and company in particular
Application of theoretical knowledge	Details of the work done or project implemented during internship is documented in detail. Theoretical basis is used to identify the various issues in organization and its processes	Work done or project implemented during internship is documented but with limited details. No proper theoretical basis for identification of issues in organization and its processes	Documentation o work done or project implemented during internship is vaguely defined. No attempt has been made to relate theory with organizational or procedural problems
Conclusions and Recommendations	Conclusions drawn are not global but specific and based on empirical evidences. Recommendations given are practical and methodology of implementing the same is discussed	Conclusions drawn are specific but empirical evidences are not properly presented. Recommendation s given seem to be practical and feasible. However,	Conclusions drawn are of global nature not based on empirical evidences. Recommendations given don't seem practical and feasibility and methodology of implementing the same is not discussed

		methodology of implementing the same is not discussed	
Feedback from Organization	Overall Performance Feedback from organization is "Excellent or Above Average"	Overall Performance Feedback from organization is "Good or Average"	Overall Performance Feedback from organization is "Satisfactory or below average "

[A-2] EVALUATION REPORT OF FIELD PROJECT/COMMUNITY ENGAGEMENT PROJECT

Master of Commerce (Major Subject) Examination, _____

Name of Student: _____

FP/CEP Title: _____

Roll No._____ **Max. Marks: 100**

CRITERION	Parameters	Score out of 20
Description UN SDG Related to FP/CEP	Detailed Description of ALL UN SDGs related to FP/CEP Undertaken by the student. The degree and extent of such related SDGs should be clearly mentioned	
Description of Respondent Profile/Community Profile & Listing of goals/objectives/Outcomes of FP/CEP	A detailed description (Including Statistical Data) of the respondents / community where the FP/CEP is being undertaken. Clear Mention of issues/problems under study to be included. Comprehensive Listing of goals/objectives/Outcomes of FP/CEP	
Application of theoretical knowledge.	Details of the work done or project implemented during FP/CEP is documented in detail. Theoretical basis is used to identify the various issues related to problem under consideration	
Conclusions and Recommendations	Specific Conclusions based on empirical evidences. Recommendations based on practical feasibility	
Feedback from concerned organization/Community Head	Authentic Company Certificate of completion /appreciation clearly classifying the performance of the student as **Excellent / Above Average** or **Good/ Average** or **Satisfactory /below average.**	
	Total Marks Scored out of 100	

Name and Signature of Internal Examiner	Name and Signature of External Examiner

RUBRIC FOR EVALUATION OF FIELD PROJECT/COMMUNITY ENGAGEMENT PROJECT

Criterion	Substantial Achievement (16-20 Marks)	Moderate Achievement (10-15 Marks)	Poor Achievement (0-9 Marks)
Description UN SDG Related to FP/CEP	Written a clear description of UN SDG(s) associated with the project	Writes a limited description of UN SDG(s) associated with the project. However, a majority of the points are covered	Writes a very brief description of UN SDG(s) associated with the project excluding majority of the points
Description of Respondent Profile/Community Profile & Listing of goals/objectives/Outcomes of FP/CEP	Written Detailed and statistical Description of Respondent Profile/Community Profile & Clear Listing of goals/objectives/Outcomes of FP/CEP	Written Detailed but non-statistical Description of Respondent Profile/Community Profile & Clear Listing of goals/objectives/Outcomes of FP/CEP	Written brief and non-statistical Description of Respondent Profile/Community Profile & unclear Listing of goals/objectives/Outcomes of FP/CEP
Application of theoretical knowledge	Details of the work done or project implemented during FP/CEP is documented in detail. Theoretical basis is used to identify the various issues related to problem under consideration	Work done or project implemented during FP/CEP is documented but with limited details. No proper theoretical basis for identification of issues related to problem under consideration	Documentation of work done or project implemented during FP/CEP is vaguely defined. No attempt has been made to relate theory with Community or procedural problems
Conclusions and Recommendations	Conclusions drawn are not global but specific and based on empirical evidences. Recommendations given are practical and methodology of implementing the same is discussed	Conclusions drawn are specific but empirical evidences are not properly presented. Recommendations given seem to be practical and feasible. However, methodology of implementing the same is not discussed	Conclusions drawn are of global nature not based on empirical evidences. Recommendations given don't seem practical and feasibility and methodology of implementing the same is not discussed
Feedback from concerned organization(s)/Community Head(s)	Overall Performance Feedback from concerned organization(s) and or Community Head(s) is "Excellent or Above Average"	Overall Performance Feedback from concerned organization(s) and or Community Head(s) is "Good or Average"	Overall Performance Feedback from concerned organization(s) and or Community Head(s) is "Satisfactory or below Average"

[B] GUIDELINES FOR RESEARCH PROJECT

Semester III – 4 Credits

Semester IV – 6 Credits

1. Learning Outcomes:

On completion of the research project, the learner will be able to –	
CO1	Formulate a research problem statement under a given state of conditions
CO2	Carry out Review of Literature in the context of defined research problem and identify research gap
CO3	Develop Constructs, design data collection instruments and collect data using appropriate sampling technique and procedure
CO4	Analyse data to arrive at meaningful findings and conclusions using appropriate statistical tools with reference to defined research problem
CO5	Write a project report explaining research problems, hypotheses (if any), data collection, analysis of data, findings, conclusions, and recommendations
CO6	Defend the research design, methods, and findings in the Open Defence Examination

2. The research project is a compulsory course carrying 10 credits (3rd Semester – 4 Credits and 4th Semester – 6 Credits) to become eligible for award of degree of Master of Commerce under this scheme of examination.
3. The research project of a student should be corresponding to the 'Major Subject' selected by a student.
4. College/Institute is required to assign Supervisor to students for Research Project who will guide the students in attaining the outcomes of this course. One such supervisor can supervise maximum 20 students in a session.
5. Appointment of Supervisor: A supervisor shall be a full-time teacher working with the college/institute concerned. However, in case of non-availability of adequate number of full-time teachers, an ad-hoc or CHB teacher can be appointed as a supervisor. In certain cases, an industry professional or subject expert can also be appointed as a supervisor by the Principal of college. Supervisors shall not claim any additional remuneration/honorarium for guiding students.
6. Guidelines for Research Project:
    a. Objective:- Every student will be assigned a project in 3rd and 4th Semesters and it will be pursued by him/her under the supervision of an internal supervisor. The objective of the Project Work is to help the student develop his/her abiiity to apply multidisciplinary concepts, tools and techniques to solve organizational problems and/or to evolve new/innovative theoretical frame work.
    b. Types of Project: The Project may take any one of the following forms (not limited to these):
        i. Comprehensive case study (covering single organization/ multifunctional area problem, formulation, analysis and recommendations)
        ii. Inter-organisational study aimed at inter-organisational comparison/ validation of theory/survey of management services.
        iii. Evolution of any new conceptual / theoretical framework. iv) Business Plan/Viability Studies
        iv. Field study (Empirical study).
        v. Software analysis, Design and solutions for organisational achievement (Applicable to IT/Ecommerce)
    c. Selection of Project Topic: -
        • Project topic has to be selected with respect to the programme of study and area elected by the student.
        • Title of the project should clearly specify the objective and scope of the study. It should be specific and neither too vague nor centralistic. The topics should be designed meticulously. It can be designed like "Employee Welfare Measures" – A case study of XYZ Ltd.

• Project selection has to be made in consultation with the supervisor who will act as a Project guide for the student. The Project Guide/Supervisor shall approve the title and project synopsis in the initial phase of the project.

d. Scope of Work: - The student is expected to carry out following activities in the project:
   1. Prepare a synopsis and get it approved by the supervisor as assigned by the respective Institutes. **Approved synopsis shall be part of final report as appendix.**
   2. Undertake a detailed literature survey on the subject matter.
   3. Make relevant data collection/observation.
   4. Consult experts of the field.
   5. Visit related organizations/institutions/industries.
   6. Compile data in proper format.
   7. Make proper conclusion/recommendations.
   8. Prepare a Project Report.
   9. The volume of the project-report should be ranging from 60-80 pages.
   10. Obtain approval of Project Report by project supervisor.
   11. Submit a hard-bound copy of the Project Report at the Institute.

e. **Submission of the Research Project Report:** Every student shall submit a Hard Copy of the Research Project Report duly signed by the student and supervisor to the college/institute one month prior to the date of the commencement of the 3rd and 4th Semester Examinations for M. Com. Following documents are required to be submitted with the Research Project Report:
   i. A certificate from the Supervisor to the effect that the candidate has satisfactorily completed the Project work for not less than one session and that the Project work is the result of the candidates own work and is of sufficiently high standard to warrant its presentation for examination
   ii. A declaration by the candidate that the Project is the result of his/her own research work and the same has not been previously submitted to any examination of this University or any other University. The Project shall be liable to be rejected and /or cancelled if found otherwise.
   iii. A certificate obtained through anti-plagiarism software stating that the original content of the project work report is more than 80% must be attached at the beginning of the project report and/or A certificate from the Supervisor to the effect that the candidate has not copied / plagiarised the contents of project report and that the supervisor has ensured the originality & authenticity of data /contents incorporated in the project report.

f. General Format of the Report: The project report should preferably be written in the following format (The format may vary depending on the nature of research topic):
   i. Executive Summary
   ii. Introduction to topic
   iii. Research Methodology
   iv. Analysis and Findings of the study
   v. Conclusions and Recommendations
   vi. Bibliography

7. The College/Institute, on receipt of the report from student, shall schedule the open defence seminar by a student before commencement of Session End Examination.

8. The open defence seminar by a student shall be evaluated by the supervisor/mentor assigned to a student (as an internal examiner) and an external examiner appointed by the college/institute.
9. **Appointment of External Examiner:** The External Examiner for evaluation of Research Project Report shall be appointed by the University through its established rules and procedures. The remuneration (Rs. 100 per student), TA/DA or Conveyance Allowance to external examiner may be paid by the college/institute which will be reimbursed by the university as per established rules.
10. The Internal Examiner and External Examiner shall jointly evaluate the report submitted by the student and her/his seminar and shall immediately submit the evaluation report in the prescribed format provided along with.
11. The College/Institute shall submit marks obtained by students to the university as per prevalent system within 3 days of evaluation.

Semester-___ Master of Commerce (M. Com) (OBE-NEP) Summer-20__

EVALUATION REPORT OF PROJECT REPORT & VIVA VOCE OF 100 MARKS

Major: _____

Name of Student: -_____

Roll No._____

Project Title: _____

Name of the Supervisor: _____

Parameters	Score out of	Marks Scored
Research Project Proposal/Synopsis (SUBMITTED AND ATTACHED AS ANNEXURE TO PROJECT REPORT) Identification of Problem Domain Research Gap Objectives Methodology Research Frame Sampling Method, Sample Size, Sample characteristics, Sample Frame Justification of Objectives and Methodology Steps to solve the defined problem Data collection Methods Primary & Secondary Data Targeted Respondent Population **Clarity About** Data Collection Tools & Techniques Classification & Graphical Representation of data Hypothesis Testing Concluding Remarks Proposed Chapter Scheme	20 Marks	
Literature Review Data to be collected from authenticated sources Literature Review with respect to Research gap Focused Information to be gathered from multiple reliable Secondary data sources The researcher needs to review at least 10 Research papers related to the specified research topic published in last 5 years	10 Marks	
Data Collection, Field Work & Analysis Questionnaire formulation & Designing Pilot Study and Application Field Visit and data collection Data Reliability & Validity Data Sanitization Classification & graphical Representation Hypothesis Testing Conclusion & Finding	25 Marks	
Project Report and References Declarations and Undertaking/Plagiarism Report Project report in the specified format References and citations Annexures	10 Marks	
Discussion and Specific Conclusions Future work outlined	10Marks	
Oral Presentation and viva voce Contents of presentations Communication & Delivery Q & A	25 Marks	
	TOTAL MARKS SCORED OUT OF 100	
Name & Signature of External Examiner	**Name & Signature of Internal Examiner**	

IMPORTANT NOTE: Above format shall be used separately for 3rd and 4th semesters as a student is carrying out different projects in these semesters.

Rubric for Evaluation of Research Project Work

	Excellent (80-100% Marks)	Good (60-79% Marks)	Average (50-59% Marks)	Poor (Less than 50% Marks)
Synopsis: Identification of Problem Domain and Detailed analysis of Feasibility, Objectives and Methodology of Project Proposal	• Detailed and extensive explanation of the purpose and need of the project • Detailed and extensive explanation of the specifications and the limitations of the existing Systems • All objectives of the proposed work are well defined;	• Good explanation of the purpose and need ofthe project • Collects a great deabf information and good study of the existing systems; • Good justification tothe objectives; Methodology to be followed is specified but detailing is not done	• Average explanation of the purpose and needof the project; • Moderate study ofthe existing systems; collects some basic information • Incomplete justification to the objectives proposed; Steps are mentioned but unclear; without justification to objectives	• Moderate explanation of the purpose andneed of the project • Explanation of the specifications and the limitations of the existing systems not very satisfactory; limited information
Quantity & Quality of Literature Review	• Information is gathered from multiple,research-based sources.	• Information is gathered from multiplesources	• Information is gathered from a limitednumber of sources.	• Information is gathered from a singlesource.
Project Report and References	• Project report is according to the specified format • References and citations are appropriate and well mentioned	• Project report is according to the specifiedformat • References and citations are appropriate bnot mentioned well	• Project report is according to the specifiedformat but some mistakes • In-sufficient references and citations	• Project report not prepared according tothe specified format • References andcitations are not appropriate
Discussion and Concl usions	• Discussion and conclusions tie the problem statement, experiments, and resultswell to tell an overall story. • Future work clearly outlined.	• Some discussion and conclusions drawn, but missing some pointsin terms of linkage of results to problem statement	• Major components missing in thediscussion *Little attempt to tie together experiments and problem statement/claims	• Little discussion or conclusions drawn.
Oral Presentation	• Contents of presentations are appropriate and well Delivered • Clear voice with	• Contents of presentations are appropriate but not welldelivered • Eye	• Contents of presentations are appropriate but not welldelivered • Eye	• Contents of presentations are not appropriate and not well delivered

and viva voce	good spoken language and eye contact with Audience • Comprehensive Q&A for all questions	contact withonly few people and unclear voice • Comprehensive Q&A for some questions	contact with only few people and unclear voice • Average Q&A	• Poor eye contactwith audience and unclear voice • Poor Q&A

****

Annexure - IV
M. Com. Semester - I
C 4- Research Methodology
(Common for all Major Subjects)

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -	
CO 1	Formulate a research problem and identify appropriate research design for a specific research problem
CO 2	Construct a data collection tool and identify appropriate processing tools for verification of hypothesis
CO 3	Articulate research findings and be able to present the findings in research report
CO 4	Understand various dimensions related to Intellectual Property Rights

Unit I: Concept of Research

Meaning, objectives and types of research, research approach, motivation of research, research process, research plan and design, Research problem selection, definition techniques, components of research design, features of good design, steps in sample design, characteristics of good sample design, probability and non probability sampling.

Unit II: Data collection

Measurement and scaling techniques, scaling and scale construction techniques. Methods of data collection, use of computers and IT in data collection, field work, survey plan, data coding, editing, tabulation, analysis of data, Data collection and processing tools of analysis, Hypothesis testing- concept of hypothesis, characteristics of hypothesis, hypothesis formulation, procedure for hypothesis testing, Use of statistical techniques for testing of hypothesis.

Unit III: Report writing

Qualities of Good report, layout of a project report, preparing research reports, concepts of report, format orders, steps in report writing, precautions in report writing, Plagiarism, prefacing, Bibliography, referencing, citation, software packages, Research prospects in commerce.

Unit IV : IPR

Concept of intellectual property, types of intellectual property, patents copy-right, types and features, significance of IPR, Global and Indian scenario of intellectual property, process of filing patents and copy right, regulatory organisation governing intellectual property in India

Reference Books:

1. Business Research Methods – Donald Cooper & Pamela Schindler, TMGH, 9th edition
2. Business Research Methods – Alan Bryman & Emma Bell, Oxford University Press.
3. Research Methodology – C.R.Kothari
4. Select references from the Internet

Question Paper Pattern

Time - 3 Hrs Max. Marks -80

Q. 1 A) Unit I ---------- 8 Marks

B) Unit I ---------- 8 Marks

OR

C) Unit I ---------- 16 Marks

Q2. A) Unit II ---------- 8 Marks

B) Unit II ---------- 8 Marks

OR

C) Unit II ---------- 16 Marks

Q.3. A) Unit III ---------- 8 Marks

B) Unit III ---------- 8 Marks

OR

C) Unit III ---------- 16 Marks

Q.4. A) Unit IV ---------- 8 Marks

B) Unit IV ---------- 8 Marks

OR

C) Unit IV ---------- 16 Marks

Q.5. A) Unit I ---------- 4 Marks

B) Unit II---------- 4 Marks

C) Unit III---------- 4 Marks

D) Unit IV---------- 4 Marks

M.COM (Computer Management)
W.E.F.2023-24

Program Specific Outcomes

PSO 1	The student will be able to transform complex business scenarios and contemporary issues into problems, investigate, understand and propose integrated solutions using emerging technologies.
PSO 2	Design and development of solutions by applying computer skills, knowledge of quantitative techniques in computer and management applications in practice.
PSO 3	The student will be able to develop a product or process by applying knowledge of programming, web, database, human computer interaction, and networking & security tools.
PSO 4	The student will be able to contribute to research in their chosen field, function, and communicate effectively, to perform both individually and in a multi-disciplinary team.
PSO 5	The student will be able to make decisions related to work that demonstrate intellectual curiosity, a commitment to lifelong learning in students and understanding of being an ethical computing professional with societal and environmental concerns.

Teaching and Examination Scheme

A teaching and examination scheme for students admitted to the M. Com. (Computer Management) Program shall be as follows:

Master of Commerce (Computer Management)

Semester I

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Python Programming		4	-	4	80	-	20	100	40	4
2.	Core	Practical Python Programming		-	8	8	-	100	-	100	50	4
3.	Core	Cloud Computing		4	-	4	80	-	20	100	40	4
4.	Elective	Practical Advance Java / Practical React JS		-	8	8	-	100	-	100	50	4
5.	Core	Research Methodology		4	-	4	80	-	20	100	40	4
				12	16	28	240	200	60	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Compute: Management)
Semester II

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	ASP.Net		4	-	4	80	-	20	100	40	4
2.	Core	Practical ASP.Net		-	8	8	-	100		100	50	4
3.	Core	Information Security & Cyber Law		4	-	4	80	-	20	100	40	4
4.	Elective	Practical Android Programming / Practical Angular JS		-	8	8	-	100		100	50	4
5.	Core	On Job Training		-	8	8	-	100	-	100	50	4
				8	24	32	160	300	40	500	250	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Computer Management)
Semester III

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme	Examination Scheme					Credits
				Total Hours Per Week	Max. Marks	Max Marks		Total Marks		

				Theory	Practical	Total	SEE (TH) *	SEE (PR)	Max. Marks (CIE)		Min. Passing Marks	
1.	Core	Advance Database Management System		4	-	4	80	-	20	100	40	4
2.	Core	Practical – SQL & PL/SQL		-	8	8	-	100		100	50	4
3.	Core	Management Information System		4	-	4	80	-	20	100	40	4
4.	Elective	Data Communication & Computer Network / Intelligent System (AI)		4	-	4	80	-	20	100	40	4
5.	Core	Research Project		-	8	8	-	100	-	100	50	4
				12	16	28	240	200	60	500	**250**	20

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

Master of Commerce (Computer Management)
Semester IV

Sr. No.	Course Type	Subjects	Course Code	Teaching Scheme			Examination Scheme					Credits
				Total Hours Per Week			Max. Marks SEE (TH) *	Max Marks SEE (PR)	Max. Marks (CIE)	Total Marks	Min. Passing Marks	
				Theory	Practical	Total						
1.	Core	Software Engineering		4	-	4	80	-	20	100	40	4
2.	Core	Mobile Computing		4	-	4	80	-	20	100	40	4
3.	Core	Big Data & Hadoop		4	-	4	80	-	20	100	40	4
4.	Elective	Practical Ruby on Rail / Practical Web with Word Press		-	8	8	-	100	-	100	50	4
5.	Core	Research Project		-	12	12	-	100	-	100	50	6
				12	20	32	240	200	60	500	**250**	22

* Semester End Examination which is mandatorily required to be appeared by every student

Note:

1. TH = Theory, CIE= Continuous Internal Evaluation
2. SEE for Theory as well as Practical examinations as mentioned above shall be conducted by the University for all semesters and the CIE shall be conducted by colleges on behalf of the University for all Semesters.

QUESTION PAPER PATTERN

First / Second / Third / Fourth Semester

Master of Commerce (Computer Management) - M.Com.(CM)

OB & CBCS Examination

Time: 3 Hours **Total Marks: 80**

N. B. - a) Draw well labeled diagram wherever necessary.

b) All questions are compulsory.

Q1. **8 x 2 = 16**

N. B. – 1. Each question carries two marks.

2. Answers should not more than five lines.

A. Unit I

B. Unit I

C. Unit II

D. Unit II

E. Unit III

F. Unit III

G. Unit IV

H. Unit IV

Q2. **8 x 3 = 24**

N. B. – 1. Each question carries three marks.

2. Answers should not more than ten lines.

A. Unit I

B. Unit I

C. Unit II

D. Unit II

E. Unit III

F. Unit III

G. Unit IV

H. Unit IV

N. B. – 1. Each question carries five or ten marks.

2. Answers should not more than 250 words for 5 marks questions and 600 words for 10 Marks questions respectively.

Q3. **Either**

(A) 5 Unit I

(B) 5 Unit I

OR

(C) 10 Unit I

Q4. **Either**

(A) 5 Unit II

(B) 5 Unit II

OR

(C) 10 Unit II

Q5. Either

(A) 5 Unit III

(B) 5 Unit III

OR

(C) 10 Unit III

Q6. **Either**

(A) 5 Unit IV

(B) 5 Unit IV

OR

(C) 10 Unit IV

Master of Commerce (Computer Management) – M.Com(CM)

Semester – I

Paper – I

Course Code – **Course Name – Python**

	Learning Outcome
LO1	Given information on different types of programming languages so that Students will be able to **distinguish** the high-level language and **understand** the benefits of using python for development of application program.
LO2	Given information on control statements of program student will be able to understand the program flow and will able to **implement** various control statement and functions for effective code design.
LO3	Given information on advance program structure Students will able to **interpret** multiple data structured elements while developing real life application for business solution.
LO4	Given information on basics of object oriented programming student will be able **create and use** different types of objects, classes and File handling operations for redesigning the program structure.

UNIT - I

The Way of the Program - The Python Programming Language, What Is a Program?, What Is Debugging?, Syntax Errors, Runtime Errors, Semantic Errors, Experimental Debugging, Formal and Natural Languages, The First Program. **Variables, Expressions, and Statements** - Values and Types, Variables, Variable Names and Keywords, Operators and Operands, Expressions and Statements, Interactive Mode and Script Mode, Order of Operations, String Operations, Comments. **Functions** - Function Calls, Type Conversion Functions, Math Functions, Composition, Adding New Functions, Definitions and Uses, Flow of Execution,

Parameters and Arguments, Variables and Parameters Are Local, Stack Diagrams, Fruitful Functions and Void Functions, Why Functions?, Importing withfrom.

UNIT - II

Conditionals and Recursion - Modulus Operator, Boolean Expressions, Logical Operators, Conditional Execution, Alternative Execution, Chained Conditionals, Nested Conditionals, Recursion, Stack Diagrams for Recursive Functions, Infinite Recursion, Keyboard Input. **Fruitful Functions** - Return Values, Incremental Development, Composition, Boolean Functions, More Recursion, Leap of Faith, One More Example, Checking Types. **Iteration** - Multiple Assignment, Updating Variables, The while Statement, break, Square Roots, Algorithms, Debugging. **Strings** - A String Is a Sequence, len, Traversal with a for Loop, String Slices, Strings Are Immutable, Searching, Looping and Counting, String Methods, The in Operator, String Comparison.

UNIT - III

Lists - A List Is a Sequence, Lists Are Mutable, Traversing a List, List Operations, List Slices, List Methods, Map, Filter, and Reduce, Deleting Elements, Lists and Strings, Objects and Values, Aliasing, List Arguments. **Dictionaries** - Dictionary as a Set of Counters, Looping and Dictionaries, Reverse Lookup, Dictionaries and Lists, Memos, Global Variables, Long Integers. **Tuples** - Tuples Are Immutable, Tuple Assignment, Tuples as Return Values, Variable-Length Argument Tuples, Lists and Tuples, Dictionaries and Tuples, Comparing Tuples, Sequences of Sequences.

UNIT - IV

Files – Persistence, Reading and Writing, Format Operator, Filenames and Paths, Catching Exceptions, Databases, Pickling, Pipes, Writing Modules. **Classes and Objects** - User-Defined Types, Attributes, Rectangles, Instances as Return Values, Objects Are Mutable, Copying. **Classes and Functions** – Time, Pure Functions, Modifiers, Prototyping Versus Planning. **Classes and Methods** - Object-Oriented Features, Printing Objects, Another Example, A More

Complicated Example, Theinit Method, The str Method Operator Overloading, Type-Based Dispatch, Polymorphism, Debugging, Interface and Implementation. **Inheritance** - Card Objects, Class Attributes, Comparing Cards, Decks, Printing the Deck, Add, Remove, Shuffle, and Sort, Inheritance, Class Diagrams, Debugging, Data Encapsulation.

Text Book:

1. Allen B. Downey, Think Python, Shroff Publishers, O'Reilly.

Reference Books:

1. Charles Dierbach, Introduction to Computer Science using Python, Wiley.
2. Laura Cassell & Alan Gauld, Python Projects, Wrox A WileyBrand.
3. Paul Greis, Jennifer Campbell, Jason Montojo, Practical Programming – An Introduction to Computer Science using Python, ShroffPublishers.

Practical List of Python

1. Write a Python program to convert the given temperature from Fahrenheit to Celsius and vice versa depending upon users choice.
2. Write a Python program that allows the user to enter any integer base and integer exponent, and displays the value of the base raised to that exponent.
3. Write a Python program to calculate total marks, percentage and grade of a student. Marks obtained in each of the three subjects are to be input by the user. Assign grades according to the following criteria:

   Grade A: Percentage >=80

   Grade B: Percentage>=70 and <80

   Grade C: Percentage>=60 and <70

   Grade D: Percentage>=40 and <60

   Grade E: Percentage<40

4. Write a Python program to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user using user-defined function.
5. Write a Python program to swap two variables
6. Write a Python program to input any 10 numbers and calculate their average using user defined function?
7. Write a Python Program to Check if a Number is Positive, Negative or 0
8. Write a Python Program to Check if a Number is Odd or Even
9. Write a Python program to find the largest number among the three input numbers
10. Write a Python Program to Display the multiplication Table
11. Write a Python program to print current date and time. In addition to this, print each component of date(i.e.year,month,day) and time (i.e.hours, minutes and microseconds) separately.
12. Write a Python program to calculate the subtraction of two compatible matrices ?
13. Write a Python program to print first 10 prime numbers.
14. Write a Python Program to Check Whether a String is Palindrome or Not
15. Write a Python Program to Convert Decimal to Binary, Octal and Hexadecimal
16. Write a Python Program to Sort Words in Alphabetic Order.
17. Write a Python Program to Find Sum of Natural Numbers Using Recursion
18. Write a Python Program to Print the Fibonacci sequence
19. Write a Python Program to Convert Kilometers to Miles
20. Write a Python Program to Find the Square Root

Paper – II

Course Code - **Course Name: Cloud Computing**

	Learning Outcome
LO1	Given information on basics of Cloud Computing, students will be able to **understand** the different paradigms, also able to **define** fundamental terminologies of Cloud Computing.
LO2	Given information on architecture and deployment model, students will be able to **remember** structure and the use of Cloud management with its types.
LO3	Given information on various cloud service models students will be able to **differentiate** and illustrate its Virtualization.
LO4	Given information on service providers, students will be able to **describe** the cloud service Model and understand the importance of its service providers.

UNIT-I

Computing Paradigms: High-Performance Computing, Parallel Computing, Distributed Computing, Cluster Computing, Grid Computing, Cloud Computing, Bio computing, Mobile Computing, Quantum Computing, Optical Computing, Nano computing, Network Computing. **Cloud Computing Fundamentals**: Need for Cloud Computing, Defining Cloud Computing; Network Computing Cloud Computing as a Service, Cloud Computing as a Platform, Principles of Cloud computing, Essential Characteristics, Requirements for cloud services, Benefits and Drawbacks of cloud computing.

UNIT-II

Cloud Computing Architecture and Management: Cloud architecture, Anatomy of the Cloud, Network Connectivity in Cloud Computing, Cloud Applications, Managing the Cloud-Cloud Infrastructure and Cloud application, Migrating Application to Cloud, Phases of Cloud Migration, Approaches for Cloud Migration, **Cloud deployment model**- Characteristics, Types of Deployment -Private, Public, community and hybrid.

UNIT-III

Cloud Service Models: Infrastructure as a Service, **IaaS-** Characteristics, Suitability, Pros and Cons, Summary of IaaS Providers, Platform as a Service **PaaS-** Characteristics, Suitability, Pros and Cons, Summary of PaaS Providers, Platform as a Service, Software as a Service. **SaaS** - Characteristics, Suitability, Pros and Cons, Summary of SaaS Providers, Platform as a Service, Other Cloud Service Models. **Virtualization:** Opportunities, Approaches to virtualization.

UNIT-IV

Cloud Service Providers: EMC, EMC IT, Captiva Cloud Toolkit, Google, Cloud Platform, Cloud Storage, Google Cloud Connect, Google Cloud Print, Google App Engine, Amazon Web Services, Amazon Elastic Compute Cloud, Amazon Simple Storage Service, Amazon Simple Queue, service, Microsoft, Windows Azure, Microsoft Assessment and Planning Toolkit, SharePoint, IBM, Cloud Models, IBM Smart Cloud, SAP Labs, SAPHANA Cloud Platform, Virtualization Services Provided by SAP, Sales force, Sales Cloud. **Service Cloud:** Knowledge as a Service, Rack space, VMware, Manjra soft, Aneka Platform.

Text Book:

1. Essentials of cloud Computing: K. Chandrasekhran, CRCpress,2014

Reference Book:

1. Cloud Computing: Principles and Paradigms by Rajkumar Buyya,James Broberg and Andrzej M. Goscinski, Wiley, 2011.
2. Cloud Computing: A Practical Approach, Anthony T.Velte, Toby J.Velte, Robert Elsenpeter, Tata McGraw Hill, 2011.
3. Cloud Computing: Implementation, Management and Security, John W. Rittinghouse, James F.Ransome, CRC Press, 2012.

Paper – III

Course Code **Course Name – Advance Java**

Learning Outcome

LO1	Given information on the use of connectivity (JDBC) and networking which helps for client server application, students will be able to **create** management applications practices emphasized for network based client server application.
LO2	Given information is used for creation of enterprise edition work with servlet's and session tracking mechanism; students will be able to **develop** the solution for human computer interaction.
LO3	Given information on event handling and Java Server Pages, students will able to **design** and **create** the web by using action tags with the help of JSP API
LO4	Given information on Extensions and Standard Tags library students will be able to Apply advance Tags in their web pages and able to **design** and **develop** the application by using technologies.

UNIT - I

Introducing Swing – JFC, The MVC Architecture, Applet, Window Panes, Important Classes of the javax.swing Package, Setting the Look and Feel of Components, An Applet with Swing Components. **Working with JDBC** - Introducing JDBC, Exploring JDBC Drivers, Exploring the Features of JDBC, Describing JDBC APIs, Exploring Major Classes and Interfaces, Exploring JDBC Processes with the java.sql Package, Working with Transactions. **Network Programming** - Networking Basics, Network Programming in Java Using the java.net Package, Establishing the two-way Communication between Server and Client, Retrieving a file at server, Learning the DatagramSocket and DatagramPacket Classes, Understanding the Content and Protocol Handlers.

UNIT - II

RMI, Naming Service, Serialization, and Internationalization - RMI Architecture, RMI Registry, Dynamic Code Loading in RMI, RMI API, Creating a Distributed Application using RMI, Naming Services, Directory and Naming Services, Overview of JNDI, Object Serialization, Internationalization, Java and Internationalization, Internationalizing Web Applications. **Introducing the Java EE Platform** - Enterprise Application Concepts, Introducing the Java EE 6 Platform, HTTP Protocol, Exploring Web Application, Introducing Web and Application Servers. **Working with Servlets** - Exploring the Features of Java Servlet, Exploring New Features in Servlet 3.0, Exploring the Servlet API, Explaining the Servlet Life

Cycle, Understanding Servlet Configuration, Creating a Sample Servlet, Creating a Servlet by using Annotation, Working with ServletConfig and ServletContext Objects, Working with the HttpServletRequest and HttpServletResponse Interfaces, Exploring Request Delegation and Request Scope, Describing a Session, Introducing Session Tracking, Exploring the Session Tracking Mechanisms, Using the Java Servlet API for Session Tracking.

UNIT - III

Introducing Event Handling and Filters - Introducing Events, Intoducing Event Handling, Working with the Types of Servlet Events, Introducing Filters, Exploring Filter API, Configuring a Filter, Creating a Web Application Using Filters, Using Initializing Parameter in Filters, Manipulating Responses, Discussing Issues in Using Threads with Filters. **Working with JavaServer Pages (JSP)** - Introducing JSP Technology, Exploring New Features of JSP 2.1, Listing Advantages of JSP over Java Servlet, Exploring the Architecture of a JSP Page, Describing the Life Cycle of a JSP Page, Working with JSP Basic Tags and Implicit Objects, Working with Action Tags in JSP, Exploring the JSP Unified EL, Using Functions with EL.

UNIT - IV

JSP Tag Extensions and Standard Tag Library - Exploring the Elements of Tag Extensions, Exploring the Tag Extension API, Working with Classic Tag Handlers, Working with Simple Tag Handlers, Working with JSP Fragments, Working with Tag Files, Introducing JSTL, Working with the Core Tag Library, Working with the XML Tag Library, Working with the Internationalization Tag Library, Working with the SQL Tag Library, Working with the Functions Tag Library. **Introducing Hibernate** - Introducing Hibernate, Exploring the Architecture of Hibernate, Downloading Hibernate, Exploring HQL, Understanding Hibernate O/R Mapping, Working with Hibernate, Implementing O/R Mapping withHibernate.

Text Book:

1. Prof. M. T. Savaliya, Advance java Technology, DreamtechPress.

Reference Books:

1. Dr. Ashwin Mehta, Sarika Shah, Advance Java for Students, ShroffPublishers.
2. Patrick Naughton & Herbert Schildt, The Complete Reference: Java 2, McGraw- Hill.
3. Joseph Weber, Using Java 2 Platform, Prentice Hall ofIndia.

4. Uttam K. Roy, Advance Java Programming, OxfordUniversity.
5. Kanika Lakhani, Advance Java Programming, KatsonBooks.

Practical List of Advance Java

1. Write a Java program to develop an applet that draws a circle. The dimension of the applet should be 500 x 300 pixels. The circle should be centered in the applet and have a radius of 100 pixels. Display your name centered in a circle.(using drawOval() method).
2. WriteaJavaprogramtodrawtenredcirclesinaverticalcolumninthecenterofthe applet.
3. Write a Java program to develop calculator-using Swing and add image on Button.
4. Write a Java program to find the IP address or computer name of local machine.
5. Write a Java program with class Greeting Client is a client program that connects to a server by using a socket and sends a greeting, and then waits for a response.
6. Write a Java program that implements a simple client/server application. The client sends data to a server the server receives the data, uses it to produce a result and then sends the result back to the client. The client displays the result on the console. For ex the data send from the client is a numbers and the result produce by the server is the addition of that number.
7. Write a Java program to create an application that displays a frame with a menu bar. When a user selects any menu or menu item, display that selection on a text area in the center of the frame.
8. Write RMI application where client supplies data to withdraw and server response with new account balance. Provide your custom security policy for this application.
9. Write a Java program to develop database application that allows user to Insert, Update, Delete values in a Table and manages appropriate exception handling when wrong values are enter.
10. WriteaJavaprogramtopresentalistofchoicesforusertoselectaproductand display the price of product.
11. Write a Java program to show validation of user using servlet.
12. Write a Java program to develop a simple servlet question answer application
13. Write a Java program to pass any URL string and display all 4 elements of URL string.
14. Write a Java program to trap all the events of mouse listener interface.

15. Write a Java program to show validation of user using JSP.
16. Write a Java program to display message on browser using JSP.
17. Write a Java program to connect with the google.com and retrieve the html code of default webpage.
18. Write a Java program to present a set of choices for a user to select stationary products and display the price of product after selection from the list.
19. Write a Java program to demonstrate typical editable table, describing employee details for a software company.
20. Write a Java program to trap all the events of key listener interface.
21. Write a Java program of calling one servlet by another servlet.
22. Write a Java program to develop a simple servlet calculator application.
23. Write a Java program to set scope of beans.
24. Write a Java program to create a JSP application that accepts registration details from the student and stores the details into the database table.
25. Write a Java program to develop a JSP application that authenticate user login as per the registration details. If login success then forward user to the index page otherwise show login failure message.
26. Write a Java program using split pane to demonstrate a screen divided into two parts contains a name of planets and another display the image of planet. When user selects the planet name from the left screen appropriate image of display in right screen.
27. Write a Java program to develop a web application to add items in the inventory using JSP.
28. Write a Java program to create a web Form, which processes servlet and demonstrates use of cookies and sessions.
29. Write a Java program to develop a simple JSP program for user login form with static and dynamic database.
30. Write a Java program to develop a JSP program to display the grade of a student by accepting the marks of five subjects.

Paper – III

Course Code **Course Name – React JS**

Learning Outcome

LO1	Given information on ECMS script student will be able to **understand** the basic concept of scripting language as well as able to **use** functions in the program
LO2	Given information on React JS basic concepts students will be able to remember the directory structure and nested elements of JSX
LO3	Given information on props & state, components and routing student will be able to **create** components and **apply** them in their program.
LO4	Given information and form & user input and hooks students will be able **design** Form, **create** and **apply** custom hooks in their application.

UNIT – I

Introduction of ECMS script: Introduction var, let & const, Arrow function, setTimeout & clearTimeout method, setInterval & clearInterval mthods, map function, filter function, join function, callback function, spread operator, reduce function, sort function, sort function, classes, properties and method, import and export

UNIT – II

Introduction of React JS: About ReactJs, server requirements, node Js & NPM, Webpack, Babel & JSX, Directory Structure; **Introduction of JSX**- Basic Concept, nested elements in JSX, JSX attributes, JSX Comments

UNIT – III

Props & States: Introduction, default props, props types, basic states, common Antipattern, SetState, State, Events & Managed controls; **Components**: Class components, functional components; **Routing**: Installation of React Routing, Create components, Add a route

UNIT – IV

Forms and User Input: controlled components, uncontrolled components; **Hooks**: UseState & State updating, multiple states, rules of Hooks, useEffect, custom Hook

Reference Books

1. Learning React: Modern Patterns for Developing React Apps 2nd Edition by Alex Banks & Eve Porcello

2. React Key Concepts: Consolidate your knowledge of React's core features by Maximilian Schwarzmuller
3. The Road to React: Your journey to master plain yet pragmatic React.js by Robin Wieruch
4. React and React Native: Build cross-platform JavaScript applications with native power for the web, desktop, and mobile, 4th Edition 4th ed. Edition by Adam Boduch, Roy Derks and Mikhail Sakhniuk
5. React.js Complete Guide To Server-Side Rendering (Front-end development) by Gerard van der Put
6. Learn React Hooks: Build and refactor modern React.js applications using Hooks by Daniel Bugl

Practical List React JS

1. Write a program to Build Search filter in React - React code to build a simple search filter functionality to display a filtered list based on the search query entered by the user.
2. Write a program to create Simple counter exercise - Creating a simple counter using React which increments or decrements count dynamically on-screen as the user clicks on the button. This exercise requires knowledge of fundamental React concepts such as State, Component, etc.
3. Write a program to Display a list in React - React code to print each item from the list on the page using Array.map() function to display each item on the page.
4. Write a program to Build Accordion in React - Creating an accordion that toggles text content on click of the accordion header using React State and conditional rendering.
5. Write a program to create Image Slider using React JS - React exercise to create an image slide, where users can view multiple images with next/previous buttons. Additionally, there is also an option to select an image from any index of the list through a click-on option circle.
6. Write a program to Create a Checklist in React - React code to display a checklist with multiple options that can select and the selected options are dynamically displayed on the screen. React State is used to keep track of checked options and onChange() Event handler is triggered to alter the state whenever an option is checked or unchecked.

7. Write a program to create Simple Login form in React - React code for simple login form where the user login by entering their username and password. The form inputs are validated to check if correct information is entered and the error messages are the validation fails. The login form is hidden and the "Welcome, ${name}" message is shown when the user login is successful.
8. Write a program to Print data from REST API - React code to collect data from rest API using fetch() in JavaScript combined with useEffect() to load the content on page render.
9. Write a program to create a Multi-Page navigation using React Router - React code to develop a multipage application with navigation for Home, About and Blog pages. The route-based component rendering is implemented using the "react-dom" npm package to allow users to navigate to different pages and render the component with respect to the route.
10. Write a program to create Context API in React Components - Context allows values to be passed from multiple levels of child components without using props. Thus context can be used as an alternative to Redux in some of the cases.
11. Write a program to Create simple Calculator: Create Simple calculator in React
12. Write a program to Create Image Search: Create image search using ReactJs and Unsplash Developer API.
13. Write a program to create Youtube Search: Youtube Video Search in React
14. Write a program to Create Todo List: Create Todo List in React.
15. Write a program to Integrate Bootstrap framework with React and Create Simple Registeration Form
16. Write a program to Integrate Material UI framework with React and Create Simple Registeration Form
17. Create React Fully Responsive Website: Build a fully responsive website in ReactJS, viewable in desktop, mobile, tablet.
18. Create Static Website: Create a static website by creating reusable components like button, cards, container, icons
19. Create Weather App: Create Weather App by using free OpenWeather.
20. Create React Password Generator: Generate strong password using ReactJS.

Semester – II

Paper – 1

Course Code – **Course Name – ASP.Net**

	Learning Outcome
LO1	Given information on **development** and **deployment** cycles of enterprise applications so that Students will be able to understand the ASP.NET frame work to and enhance the web page with the combination of advance web designing tools(CSS3, HTML5)build distributed enterprise application
LO2	Given information to **understand** server controls like secure protocols and also **examine** the entered data on the web page which helps to handle Master page with cookies.
LO3	Given information to **access** the backend (database)with suitable connectivity controls and **deploy** a secure client server in real life application with customized web page like secure web access methods
LO4	Given information will **deploy** the web application by application interface control and WCF services so that Students will be able to **create** dynamic web applications using a combination of client-side (JavaScript, HTML, XML, WML) and server-side technologies (ASP.NET, ADO.NET).

UNIT – I

An introduction to ASP.NET programming: An introduction to web applications, An introduction to ASP.NET development. **How to develop a one-page web application:** How to work with ASP.NET web sites, How to use Visual Studio to build a web form, How to add validation controls to a form, How to add C# code to a form, How to test a web application.

How to use HTML5 and CSS3 with ASP.NET applications: The Future Value application with CSS formatting, The HTML and CSS skills that you need. **How to develop a multi-page web application**: How to work with multi-page web sites, How to use session state. **How to test and debug ASP.NET applications**: How to test an ASP.NET web site, How to use the debugger, How to use the trace feature.

UNIT –II

How to use the standard server controls: How to use the common server controls, How to use the button controls, How to use the list controls. **How to use the validation controls**: Introduction to the validation controls, How to use the validators, Validation techniques. **How to work with state, cookies, and URL encoding**: How to use view state, How to use session state, How to use application state and caching, How to use cookies and URL encoding. **How to use master pages**: How to create master pages, How to create and develop content pages, How to customize content pages. **How to use themes**: An introduction to themes, How to work with themes and skins. **How to use site navigation and ASP.NET routing**: How to use the navigation controls, How to use ASP.NET routing, How to use the navigation controls with ASP.NET routing.

UNIT – III

An introduction to database programming: An introduction to relational databases, An introduction to ADO.NET 4.5, How to use the DataList control, How to use data binding, How to customize the GridView control, How to use the DetailsView control , How to use the FormView control. **How to use object data sources with ADO.NET**: An introduction to object data sources, How to create a data access class, A Category Maintenance application . **How to secure a web site**: An introduction to SSL, How to use a secure connection. **How to authenticate and authorize users**: An introduction to authentication, How to set up authentication and authorization, How to use the login controls. **How to use email, custom error pages, and back-button control**: How to send email, How to use custom error handling, How to handle the back-button problem.

UNIT – IV

How to configure and deploy ASP.NET applications: How to use the Web Site Administration Tool, An introduction to deployment, How to use one-click deployment, How to create and use a Setup program. **How to use ASP.NET Ajax:** An introduction to Ajax, An introduction to ASP.NET Ajax, How to use the ASP.NET Ajax server controls, An application that uses ASP.NET Ajax. **How to create and use WCF and Web API services:** An introduction to web services, How to create a WCF service, How to create a web site that consumes a WCF service, How to create a Web API service, How to create a web site that consumes a Web API service. **An introduction to ASP.NET MVC:** An introduction to MVC, An introduction to ASP.NET MVC, How to work with views, How to work with controls and postbacks.

Text Book:

1. Mary Delamater & Anne Boehm, murach's ASP.Net Web Programming with C#, Shroff Publishers.

Reference Books:

1. ASP.Net Black Book, Kogent Learning Solutions Inc, Dreamtech Press.
2. Jason Gaylord, Christian Wenz, Pranav Rastogi, Todd Miranda, Scott Hanselman, Professional ASP.Net in C# & VB, Wrox A Wiley Brand.
3. ASP.Net with C#, Kogent Learning Solutions Inc, Dreamtech Press.

Practical List of ASP.Net

1. Create a page in ASP.NET using VB.NET or C# to display the following Web Controls:
   - A button with text —click me!. The button control must be in the center of the form.
   - A label with a text hello
   - A checkbox. The form name must be Web Controls.
2. Create a page in ASP.NET using VB.NET or C# containing the following controls:
   - A ListBox
   - A Button
   - An Image
   - A Label

The listbox is used to list items available in a store. When the user clicks on an item in the listbox, its image is displayed in the image control. When the user clicks the button, the cost of the selected item is displayed in the control.

3. Create a page in ASP.NET using VB.NET or C# that take a student name from the user, add that name in list-box control. And delete the chosen name from the list-box.
4. Create a page in ASP.NET using VB.NET or C# for book sales. Enter the quantity, title and price of the book. Calculate the extended price, discount (15%) and after discount, the actual price of the book. Show the summery of book sales. (Like total no of books, total discount given, total discounted amount and average discount.) You will need command buttons- calculate, clear sale.
5. Create a page in ASP.NET using VB.NET or C# using HTML Server controls that take user name, address, and city, state and country name from the user and display it.
6. Create a page in ASP.NET using VB.NET or C# to get a user input such as the boiling point of water and test it to the appropriate value using Compare Validator
7. Create a page in ASP.NET using VB.NET or C# that uses a textbox for a user input name and validate it for RequiredField Validation.
8. Create a page in ASP.NET using VB.NET or C# that gets user input such as the user name, mode of payment, appropriate credit card. After the user enters the appropriate values the Validation button must validates the values entered.
9. Create a page in ASP.NET using VB.NET or C# to declare one TextBox control, one Button control, one Label control, and one RegularExpressionValidator control in an .aspx file. The submit() function checks if the page is valid. If it is valid, it returns "The page is valid!" in the Label control. If it is not Valid, it returns "The page is not valid!" in the Label control. If validation fails, the text "The zip code must be 5 numeric digits!" will be displayed in the RegularExpressionValidator control.
10. Create a page in ASP.NET using VB.NET or C# using HTML Server controls that convert given currency into another selected currency. For that you need a dropdown-list.
11. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Inserting Data.
12. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Updating Data.

13. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Deleting Data
14. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Search Data.
15. Create a page in ASP.NET using VB.NET or C# to create a proxy.
16. Create a page in ASP.NET using VB.NET or C# that has a form taking the user's name as input. Store this name in a permanent cookie & whenever the page is opened again, then value of the name field should be attached with the cookie"s content
17. Create a page in ASP.NET using VB.NET or C# to run video
18. Create a page in ASP.NET using VB.NET or C# to delete all cookies of your web site that has created on the client's computer.
19. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Inserting Data.
20. Create a page in ASP.NET using VB.NET or C# to the database with ADO.NET for Updating Data.

Paper – II

Course Code – **Course Name – Information Security & Cyber Law**

	Learning Outcome
LO1	Given information on information security and threats students will be able to **understand** structure, mechanics and evolution of various crime threats and able to **remember** the security mechanism.
LO2	Given information on various security mechanism, students will be able to **define** various security tools used to protect the data
LO3	Given information on IT Act 2000 students will be able to **illustrate** different terminologies used in IT Act 2000
LO4	Given information on various tools used in security, students will be able to **recognize** which tool is best suited in field.

UNIT - I

- Information Security : Overview, need for information security, objectives of Information security. - Global information systems and their evolution, basics of information systems, role of the Internet and the World Wide Web. - Understanding about the threats to information systems security Building blocks of InfoSec, How Organizations manage security of their information systems Information security risk analysis fundamentals. - Importance of physical security and biometrics controls for protecting information systems assets. - Security considerations for the mobile work force. - Network security perspectives, networking and digital communications (overview only), security of wireless networks.

UNIT - II

- Cryptographic techniques and Encryption, Intrusion Detection Systems and Firewalls,security of virtual private networks. - Security issues in application development with emphasis on integration of enterprise applications, database security, operating security and security of electronic mailing systems. - Security models and frameworks and standards through introduction to the ISO 27001, SSE-CMM (systems security engineering – capability maturity model), COBIT (Control Objectives for Information and related technologies) and the SarbanesOxley Act (SOX) and SAS 70 (statement on auditing standards). - Privacy Fundamentals, business practice's impact on data privacy, technological impact on data privacy, privacy issues in web services and applications based on web services. - Information security best practices – staffing, audits, and disaster recovery planning and business continuity planning and asset management. - Ethical issues and intellectual property concerns for information security professionals – copy right, data protection etc. matters.

UNIT – III

- Introduction of IT Act 2000, main features of IT Act 2000, Digital Signature. - Access Control : Operating system Access Controls, Group and Roles, Access Control lists, Unix Operating System Security, Windows NT, Capabilities, Added Features in Windows 2000, Granularity, Sandboxing and Proof-carrying code,Hardware protection, Other technical Attacks. - Cryptography & PKI : Symmetric Cryptography, Asymmetric Cryptography, Keys, Hash Functions, Digital Signatures. - Distributed Systems - Concurrency, Fault Tolerance and Fault Recovery, Naming.

UNIT – IV

- Multilevel and Multilateral Security : Multilevel Security, Multilateral Security. - Electronic Banking –Banking and Bookkeeping. - Monitoring Systems –Introduction, Alarms, Prepayment Masters. - Biometrics : Physiological biometric techniques, behavioral biometric techniques, - New biometric techniques, biometric systems. - Incident Response : Incident Response, Prerequistes to planning an IRT. - Network attack and Defence : Most Common Attacks, Scripts Kiddies and Packaged Defence. - Management Issues : Organisational Issues, - Protecting E-commerce Systems – Introduction - Hacking – Introduction

Books Recommended

1. Information Systems Security Management - Nina S. Godbole (Wiley India Pvt. Ltd.)
2. Security Engineering - Ross Anderson
3. Information Security Management Handbook - Harold Tpton & Micki Krause (Auerbach Publications)
4. Network Security Essentials: Applications and Standards - W. Stallings (Pearson Education)
5. eSecurity and You - Sandeep Oberoi (Tata McGraw-Hill)
6. Cyber Laws – Singh Yatindra
7. Cyber Crime – Bansal S K
8. Cyber law , E-commerce & M-Commerce – Ahmand Tabrez
9. Handbook of Cyber and E-commerce laws – Bakshi P M & Suri R K
10. Management Fundamentals and Information Systems Dr. Sushila Madan (Taxmann's)

Paper – III

Course Code – **Course Name – Practical Android Programming**

	Learning Outcome
LO1	Given information on basics interface and architecture student will able to develop and grasp of the Android OS architecture (using various android views and view groups).

LO2	Given information on designing different themes for android application which help Students will able to **Understand** the handling the data by using external devices and also for the networking communication application.
LO3	Given information will help the students to **understand** the geographical locations on the maps with the help of geo-coding and reverse geo-coding as well as application will enrich with use of graphics and animation.
LO4	Given information will help Students to **Familiarize** with Android development by selecting tools for including device emulator, profiling tools and IDE as well as **Identity, analyze** data storage, retrieval, user preferences, files and content providers

UNIT - I

Getting an Overview of Android Introducing Android - Listing the Version History of Android Platform, Discussing Android APIs, Describing the Android Architecture Application Framework, Exploring the Features of Android, Discussing about Android Applications, The Application Components, The Manifest File, The Command-Line Tools, Developing and Executing the First Android Application, Using Eclipse IDE to Create an Application, Running Your Application, Exploring the Application, Using Command-Line Tools. **Using Activities, Fragments and Intents in Android** - Working with Activities, Creating an Activity, Starting an Activity, Managing the Lifecycle of an Activity, Applying Themes and Styles to an Activity, Displaying a Dialog in the Activity, Hiding the Title of the Activity, Using Intents, Exploring Intent Objects, Exploring Intent Resolution, Exploring Intent Filters, Resolving Intent Filter Collision, Linking the Activities Using Intent, Fragments, Fragment Implementation, Finding Fragments, Adding, Removing, and Replacing Fragments, Finding Activity Using Fragment, Using the Intent Object to Invoke Built-in Application. **Working with the User Interface Using Views and ViewGroups** - Working with View Groups, The LinearLayout Layout, The RelativeLayout Layout, The ScrollView Layout, The TableLayout Layout, The FrameLayout Layout, The TabLayout Using the Action Bar, Working with Views, Using the TextView, Using the EditText View, Using the Button View, Using the RadioButton View, Using the CheckBox View, Using the ImageButton View, Using the ToggleButton View, Using the RatingBar View, Binding Data with the AdapterView Class, Using the ListView Class, Spinner, Using the Gallery View, Designing the AutoTextCompleteView, Implementing Screen Orientation, Anchoring the Views of the Current Activity, Customizing the Size and

Position of the Views, Designing the Views Programmatically, Handling UI Events, Handling User Interaction with Activities, Handling User Interaction with the Views, Specialized Fragments, ListFragment, DialogFragment, PreferenceFragment, Creating Menus The Options Menu The Context Menu The SubMenus.

UNIT - II

Handling Pictures and Menus with Views - Working with Image Views, Displaying Images in the Gallery View, Displaying Images in the Grid View, Using the ImageSwitcher View, Designing Context Menu for Image View, Using the AnalogClock and DigitalClock Views, Embedding Web Browser in an Activity, Notifying the User Creating the Toast Notification, Creating the Status Bar Notification, Creating the Dialog Notification. **Storing the Data Persistently** - Introducing the Data Storage Options, Using Preferences, Using the Internal Storage Exploring the Methods Used for Internal Storage, Developing an Application to Save User Data Persistently in File, Using the External Storage Exploring the Methods Used for External Storage, Developing Application to Save File in SD Card, Using the SQLite Database Creating the Database Helper Class, Creating the Layout and Main Activity Class, Creating the Layout and Activity for the Insert Operation. Creating the Layout and Activity to Search a Record, Creating the Activity Class to Fetch All Records, Creating the Layout and Activity for the Update Operation, Creating the Layout and Activity for the Delete Operation, Executing the Database Operations, Working with Content Providers, Exploring the android.provider Package, Creating User-Defined Content Provider, Consuming User- Defined Content Provider. **Emailing and Networking in Android** - Building an Application to Send Email, Networking in Android, Getting an Overview of Networking Fundamentals, Checking Network Availability, Accessing Web Services UsingHTTP Post, Accessing Web Services Using the GET Method, Working with Binary Data and Text Files, Consuming JSON Services, Sockets Programming.

UNIT - III

Working with Location Services and Maps - Working with Google Maps, Exploring Google Maps External Library, Creating an Application Using Google Maps Android API, Disabling the Zoom Control Button, Changing the Map Type, Displaying the Specific Location and Adding Markers, Handling Map Gestures Interaction, Getting the Current Location of a User, Working with Geocoding and Reverse Geocoding. **Working with Graphics and Animation**

- Working with Graphics, Drawing Graphics to Canvas, Using the Drawable Object, Referencing an Image File, Defining Drawable in XML, Using the Shape Drawable Object, Working with the Nine Patch Drawable Graphics, Understanding the Concept of Hardware Acceleration, Working with Animations, The Property Animation, View Animation Drawable Animation: Audio, Video and Camera - Role of Media Playback Using Media Player Media Formats Supported by Media Player, Preparing Audio for Playback; Preparing Video for Playback. Creating Application to Play Audio and Video Using MediaPlayer, Recording and Playing Sound, Use of Media Store Audio Recording Application, Creating a Sound Pool Using Camera for Taking Pictures, Creating Video RecordingApplication.

UNIT - IV

Threads and Services - Introducing Threads Worker Threads Using AsyncTask, Introducing Services Exploring Services Essentials, Understanding the Lifecycle of a Service, Exploring the Service Class, Introducing the Service Class, Creating a Bound Service. **Bluetooth, NFC and Wi-Fi** - Working with Bluetooth Exploring the Android Bluetooth APIs, Permissions Required to Access Bluetooth, Setting Up the Bluetooth for an Application, Identifying the Bluetooth-Enabled Devices, Querying the Paired Devices, Discovering Devices Creating an Application Using Bluetooth Functionality, Connecting the Devices Using Bluetooth for Data Transfer, Connecting as a Server Connecting as a Client Working with Bluetooth Low Energy, Working with NFC, Exploring the Basics of NFC, Developing an Application Using NFC, Working with Wi-Fi, Exploring the Wi-Fi APIs, Creating an Application Using Wi-Fi. **Telephony and SMS** - Handling Telephony Displaying Phone Information Application Receiving Phone Calls Application, Making Outgoing Phone Calls Application, Handling SMS Sending SMS Using SmsManager, Sending SMS Using Intent, Receiving SMS Using the BroadcastReceiver Object, Role of Default SMS Providers. Hardware Sensors - Introducing Sensors Exploring the Sensor Framework, Managing Various Sensor Configurations, Understanding the Sensor Coordinate System.

Text Book:

1. Rradeep Kothari, Android Application Development – Black Book, Dreamtech Press.

Reference Books:

2. Prasanna Kumar Dixit, Android, Vikas Publishing.
3. Dawn Griffiths & David Griffiths, Head First Android Development, Shroff Publishers.
4. Ed Burnette, Hello Android, Shroff Publishers.
5. Jerome DiMarzio, Android – A Programmer's Guide, McGraw-Hill.
6. Dave MacLean, Satya Komatineni, Grant Allen, Pro Android 5, Apress.
7. Reto Meier, Professional Android Application Development, Wiley.

Practical List of Android Programming

1. Create —Hello Worldl android application. That will display —Hello Worldl in the middle of the screen in the red color with white background.
2. Write an android application to understand Activity, Intenta. Create sample application with login module. (Check username and password) and on successful login, go to next screen. And on failing login, alert user using Toast. Also pass username to next screen.
3. Create an android application that will change color of the screen and change the font size of text view using xml.
4. Create login android application where you will have to validate EmailID (UserName). Till the username and password is not validated, login button should remain disabled.
5. Create and login android application as above. On successful login, open browser with any URL.
6. Create an android application that will pass some number to the next screen, and on the next screen that number of items should be display in the list.
7. Create an android application that will change color of the screen, based on selected options from the menu.
8. Create an android application that will display toast (Message) on specific interval of time.
9. Create a android background application that will open activity on specific time.
10. Create an android application that will have spinner with list of animation names. On selecting animation name, that animation should affect on the images displayed below.
11. Create an android UI such that, one screen have list of all the types of cars. and on selecting of any car name, next screen should show Car details like : name, launched date, company name, images(using gallery) if available, show different colors in which it is available.

12. Write an android application to read phonebook contacts using content providers and display in list.
13. Write an android application to read messages from the mobile and display it on the screen.
14. Create an android application to call specific entered number by user in the EditText
15. Create an android application that will create database with table of User credential.
16. Create an android application to read file from asset folder and copy it in memory card.
17. Create an android application that will play a media file from the memory card.
18. Create an android application to make Insert, update, Delete and retrieve operation on the database.
19. Create an android application to read file from the sdcard and display that file content to the screen.
20. Create an android application to draw line on the screen as user drag his finger.
21. Create an android application to send message between two emulators.
22. Create an android application to take picture using native application.
23. Create an android application to pick up any image from the native application gallery and display it on the screen.
24. Create an android application to open any URL inside the application and clicking on any link from that URl should not open Native browser but that URL should open the same screen.
25. Create an android application that will create database with table of User credential.

Paper – III

Course Code – **Course Name – Angular JS**

	Learning Outcome
LO1	Given information on basics of Angular JS student will be able to design the page and apply in real time applications
LO2	Given information on directives, controllers and modules student will be able to Create and Use while design their web page or web application

LO3	Given information on Forms and Dependency, students will be able to **design** Form with all validations and be able to **create** services.
LO4	Given information on application building student will be able to **create** single page application with animations

UNIT - I

Angular JS Basics - What is Angular JS? Why Angular JS? Why MVC matters, MVC-The Angular JS way Features of Angular JS, Model-View-Controller, My First Angular JS app.

Angular Expressions - All about Angular Expressions, How to use expressions, Angular vs JavaScript

Filters - Built-In Filters, Using Angular JS Filters, Creating Custom Filters

UNIT - II

Directives - Introduction to Directives, Directive Lifecycle, Binding controls to data, Matching directives, Using Angular JS built-in directives, Creating a custom directive

Controllers - Role of a Controller, Controllers & Modules, Attaching Properties and functions to scope, Nested Controllers, Using Filters in Controllers, Controllers in External Files

Angular JS Modules - Introduction to Angular JS Modules, Bootstrapping Angular JS

UNIT - III

Angular JS Forms - Working with Angular Forms, Model Binding, Forms Events, Updating Models with a Twist, Form Controller, Validating Angular Forms, $error object

Scope - What is scope, Scope Lifecycle, Scope Inheritance, Scope & Controllers, Root scope, Scope Broadcasting, Two-way data binding, Scope Inheritance, Scope & Directives, $apply and $watch, Scope Events

Dependency Injection & Services - What is Dependency Injection, Creating Services, Factory, Service & Provider, Using Dependency Injection, What are services, Using Angular JS built in services

UNIT - IV

Single Page Application (SPA) - What is SPA, Pros and Cons of SPA, Passing Parameters, Changing location, Installing the ng Route module, Configure routes, Resolving promises, creating a Single Page Apps

Angular JS Animation- Animate Module, CSS Transforms, CSS Transitions, Applying Animations

Reference Books

1. The Complete Guide to Angular Paperback – 6 February 2018 by Felipe Coury, Ari Lerner and Carlos Taborda
2. Angular in Action Paperback – Import, 2 April 2018 by Jeremy Wilken
3. Angular: From Theory To Practice: Build the web applications of tomorrow using the Angular web framework from Google. Kindle Edition by Asim Hussain
4. Angular 6 for Enterprise-Ready Web Applications: Deliver production-ready and cloud-scale Angular web apps 1st Edition, Kindle Edition by Doguhan Uluca
5. Angular: Up and Running: Learning Angular, Step by Step 1st Edition, Kindle Edition by Shyam Seshadri
6. Pro AngularJS (Expert's Voice in Web Development) Paperback – 7 April 2014 by Adam Freeman
7. Angular Development with TypeScript Paperback – 17 December 2018 by Yakov Fain and Anton Moiseev

Practical List of Angular JS

1. Design Order Form with a total price updated in real time, which contains name of five products and their prices. Create a bill amount for all the products, calculate GST on the billing amount, and display total amount.
2. Implement Angular JS to create your Resume.

3. Use Practical No.01 and initialize prices to 0 (zero) when form loads. (Use module, controller & directive).
4. Design a webpage which takes one number as an input and generate its factorial number (use module, controller).
5. Design a webpage, which takes inputs product name, product quantity and price. Generate table of entered values. When user clicks on table column title, it should sort that column values. (Use filter, array).
6. Design a webpage which display product name and product price using AngularJS $http Service from database. Display the content in tabular format.
7. Write a program to create notepad application using Angular JS
8. Write a program in Angular JS to create Navigation Menu that highlights the selected entry.
9. Write a program in Angular JS to create a simple inline editor - clicking a paragraph will show a tooltip with a text field.
10. Write a program in Angular JS to design an order form with a total price updated in real time, using filters.
11. Write a program in Angular JS to filter a list of items by typing into a text field
12. Write a program in Angular JS to change name using JS Controller.
13. Write a program in AngularJS to enter the text in the input field. & Angular JS will display an error message if the entered text is invalid.
14. Write a program in Angular JS to hide a Div by adding checkbox.
15. Write a program in Angular JS to print "Hello World"
16. Write a program in Angular JS to design cost calculator.
17. Write a program in Angular JS to change the color of input box by changing its value.

Annexure – III

DETAILS OF 'ON JOB TRAINING/SUMMER INTERNSHIP PROJECT', *'FIELD PROJECT'*, *'COMMUNITY ENGAGEMENT PROJECT' AND 'RESEARCH PROJECT'*

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[A] GUIDELINES FOR 'ON JOB TRAINING/SUMMER INTERNSHIP PROJECT/FIELD PROJECT/COMMUNITY ENGAGEMENT PROJECT

Semester II – 4 Credits

1. **Learning Outcomes**

CO1	Student will be able to construct and explain the company profile by compiling the brief history, management structure, products / services offered, key achievements and market performance for his / her organization of internship/OJT **OR** Student will be able to describe the UN SDG to which the *'Field Project'*, or *'Community Engagement Project'* is related.
CO2	For his / her organization of internship/OJT, the student will be able to assess its Strengths, Weaknesses, Opportunities and Threats (SWOT). **OR** Student will be able to list the goals, objectives or outcomes of the *'Field Project'*, or *'Community Engagement Project'* undertaken by him
CO3	Student will be able to determine the challenges and future potential for his / her internship/OJT organization in particular and the sector in general. **OR** Student will be able to describe the profile of respondents / community involved in the *'Field Project'*, or *'Community Engagement Project'* undertaken by him
CO4	Student will be able to correlate theoretical classroom learning and its application in practical situations by accomplishing the tasks undertaken during On Job Training/Summer Internship Project', 'Field Project', or 'Community Engagement Project'.
CO5	Student will be able to apply various soft skills such as time management, positive attitude, and communication skills during performance of the tasks assigned during On Job Training/Summer Internship Project', 'Field Project', or 'Community Engagement Project'
CO6	Student will be able to suggest improvements in processes/systems at the Organization(s)/Community where On Job Training/Summer Internship Project', 'Field Project', or 'Community Engagement Project' is undertaken

2. Every student admitted to M. Com. Second Semester is compulsorily required to undergo this course bearing 4 credits.
3. At the end of second semester, all students will have to undergo summer training of 6-8 weeks (120 Hours) with an industrial, business or service organization by taking a project study.
4. The condition of successfully completing the program shall not be deemed to have been satisfied unless a student undergoes summer training under the supervision of the department executive in organizations as approved by the Director/ Principal/ Head / Faculty from time to time. Alternatively, Director/ Principal/ Head / Faculty of the Department/ College/ Institute may allocate the sector/ industry/ company specific project to the individual student.
5. Each student will be required to submit a detailed report to the Department/ College/ Institute for the work undertaken during this period **within 7 days of completion of the training** following which the

evaluation and assessment for OJT/SIP will be done by the college/institute concerned. The Report submitted must be according to the Learning outcomes and in tune with the rubric for evaluation.

6. A student is also allowed to conduct a Field Project or Community Engagement Project in lieu of On Job Training. However, such a Filed or Community Engagement Project need to have a duration of 6-8 weeks (120 Hours) and a student is required to submit the report to college/institute as mentioned above.
7. College/Institute is required to assign Supervisor/Mentor to students for OJT/SIP/PF/CEP who will guide the students in attaining the outcomes of this course.
8. The College/Institute, on receipt of the report from student, shall immediately schedule the open defence seminar by a student.
9. The open defence seminar by a student shall be evaluated by the supervisor/mentor assigned to a student (as an internal examiner) and an external examiner appointed by the college/institute.
10. **Appointment of External Examiner:** It is desirable to appoint an external examiner from the company/organization where a student has completed his 'OJT/SIP/FP/CEP'. However, the Principal may appoint any other industry professional or subject expert as an external examiner. The remuneration (Rs. 100 per student), TA/DA or Conveyance Allowance to external examiner may be paid by the college/institute which will be reimbursed by the university as per established rules.
11. The Internal Examiner and External Examiner shall jointly evaluate the report submitted by the student and her/his seminar and shall immediately submit the evaluation report in the prescribed format provided along with.
12. The College/Institute shall submit marks obtained by students to the university as per prevalent system within 3 days of evaluation.

[A-1] EVALUATION REPORT OF SUMMER INTERNSHIP/ON JOB TRAINING

Master of Commerce (Major Subject) Examination, _____

Name of Student: _____

OJT/SIP Title: _____

Roll No._____ **Max. Marks: 100**

CRITERION	Parameters	Score out of 20
Description of Organizational Profile	Company profile, Historical evolution, Management structure, Organization structure, Products / services offered, Key achievements, Market performance	
Analysis of organization & Sector.	SWOT analysis, Key challenges & opportunities, Company Analysis, Sector Analysis, Competitive analysis	
Application of theoretical knowledge.	Details of the work done, Job Description, specification. Project implemented. Identify the various issues in organization and its processes.	
Conclusions and Recommendations	Specific Conclusions based on empirical evidences. Recommendations based on practical feasibility	
Feedback from organization.	Authentic Company Certificate of completion clearly classifying the performance of the student as **Excellent / Above Average** or **Good/ Average** or **Satisfactory /below average.**	

Total Marks Scored out of 100	
Name and Signature of Internal Examiner	Name and Signature of External Examiner

Rubric for Evaluation of Summer Internship/On Job Training

Criterion	Substantial Achievement (16-20 Marks)	Moderate Achievement (10-15 Marks)	Poor Achievement (0-9 Marks)
Description of Organizational Profile	Writes a clear description of company profile including its history, management structure, products/services offered, key achievements and market performance	Writes a limited description of company profile. However, a majority of the points are covered	Writes a very brief description of company profile excluding majority of the points
Analysis of Organization and Sector	Performance a SWOT analysis for the company and presents all the key challenges & opportunities of the sector in general and company in particular	A limited analysis of the company and the sector is performed. All the key elements of challenges & opportunities have not been identified	Is unable to perform a proper SWOT analysis and identify the challenges & opportunities of the sector in general and company in particular
Application of theoretical knowledge	Details of the work done or project implemented during internship is documented in detail. Theoretical basis is used to identify the various issues in organization and its processes	Work done or project implemented during internship is documented but with limited details. No proper theoretical basis for identification of issues in organization and its processes	Documentation o work done or project implemented during internship is vaguely defined. No attempt has been made to relate theory with organizational or procedural problems
Conclusions and Recommendations	Conclusions drawn are not global but specific and based on empirical evidences. Recommendations given are practical and methodology of implementing the same is discussed	Conclusions drawn are specific but empirical evidences are not properly presented. Recommendations given seem to be practical and feasible. However, methodology of implementing the	Conclusions drawn are of global nature not based on empirical evidences. Recommendations given don't seem practical and feasibility and methodology of implementing the same is not discussed

		same is not discussed	
Feedback from Organization	Overall Performance Feedback from organization is "Excellent or Above Average"	Overall Performance Feedback from organization is "Good or Average"	Overall Performance Feedback from organization is "Satisfactory or below average "

[A-2] EVALUATION REPORT OF FIELD PROJECT/COMMUNITY ENGAGEMENT PROJECT

Master of Commerce (Major Subject) Examination, _____

Name of Student: _____

FP/CEP Title: _____

Roll No._____ **Max. Marks: 100**

CRITERION	Parameters	Score out of 20
Description UN SDG Related to FP/CEP	Detailed Description of ALL UN SDGs related to FP/CEP Undertaken by the student. The degree and extent of such related SDGs should be clearly mentioned	
Description of Respondent Profile/Community Profile & Listing of goals/objectives/Outcomes of FP/CEP	A detailed description (Including Statistical Data) of the respondents / community where the FP/CEP is being undertaken. Clear Mention of issues/problems under study to be included. Comprehensive Listing of goals/objectives/Outcomes of FP/CEP	
Application of theoretical knowledge.	Details of the work done or project implemented during FP/CEP is documented in detail. Theoretical basis is used to identify the various issues related to problem under consideration	
Conclusions and Recommendations	Specific Conclusions based on empirical evidences. Recommendations based on practical feasibility	
Feedback from concerned organization/Community Head	Authentic Company Certificate of completion /appreciation clearly classifying the performance of the student as **Excellent / Above Average** or **Good/ Average** or **Satisfactory /below average.**	
	Total Marks Scored out of 100	

Name and Signature of Internal Examiner	Name and Signature of External Examiner

RUBRIC FOR EVALUATION OF FIELD PROJECT/COMMUNITY ENGAGEMENT PROJECT

Criterion	Substantial Achievement (16-20 Marks)	Moderate Achievement (10-15 Marks)	Poor Achievement (0-9 Marks)
Description UN SDG Related to FP/CEP	Written a clear description of UN SDG(s) associated with the project	Writes a limited description of UN SDG(s) associated with the project. However, a majority of the points are covered	Writes a very brief description of UN SDG(s) associated with the project excluding majority of the points
Description of Respondent Profile/Community Profile & Listing of goals/objectives/Outcomes of FP/CEP	Written Detailed and statistical Description of Respondent Profile/Community Profile & Clear Listing of goals/objectives/Outcomes of FP/CEP	Written Detailed but non-statistical Description of Respondent Profile/Community Profile & Clear Listing of goals/objectives/Outcomes of FP/CEP	Written brief and non-statistical Description of Respondent Profile/Community Profile & unclear Listing of goals/objectives/Outcomes of FP/CEP
Application of theoretical knowledge	Details of the work done or project implemented during FP/CEP is documented in detail. Theoretical basis is used to identify the various issues related to problem under consideration	Work done or project implemented during FP/CEP is documented but with limited details. No proper theoretical basis for identification of issues related to problem under consideration	Documentation of work done or project implemented during FP/CEP is vaguely defined. No attempt has been made to relate theory with Community or procedural problems
Conclusions and Recommendations	Conclusions drawn are not global but specific and based on empirical evidences. Recommendations given are practical and methodology of implementing the same is discussed	Conclusions drawn are specific but empirical evidences are not properly presented. Recommendations given seem to be practical and feasible. However, methodology of implementing the same is not discussed	Conclusions drawn are of global nature not based on empirical evidences. Recommendations given don't seem practical and feasibility and methodology of implementing the same is not discussed
Feedback from concerned organization(s)/Community Head(s)	Overall Performance Feedback from concerned organization(s) and or Community Head(s) is "Excellent or Above Average"	Overall Performance Feedback from concerned organization(s) and or Community Head(s) is "Good or Average"	Overall Performance Feedback from concerned organization(s) and or Community Head(s) is "Satisfactory or below Average"

[B] GUIDELINES FOR RESEARCH PROJECT

Semester III – 4 Credits

Semester IV – 6 Credits

1. Learning Outcomes:

On completion of the research project, the learner will be able to –

CO1	Formulate a research problem statement under a given state of conditions
CO2	Carry out Review of Literature in the context of defined research problem and identify research gap
CO3	Develop Constructs, design data collection instruments and collect data using appropriate sampling technique and procedure
CO4	Analyse data to arrive at meaningful findings and conclusions using appropriate statistical tools with reference to defined research problem
CO5	Write a project report explaining research problems, hypotheses (if any), data collection, analysis of data, findings, conclusions, and recommendations
CO6	Defend the research design, methods, and findings in the Open Defence Examination

2. The research project is a compulsory course carrying 10 credits (3rd Semester – 4 Credits and 4th Semester – 6 Credits) to become eligible for award of degree of Master of Commerce under this scheme of examination.
3. The research project of a student should be corresponding to the 'Major Subject' selected by a student.
4. College/Institute is required to assign Supervisor to students for Research Project who will guide the students in attaining the outcomes of this course. One such supervisor can supervise maximum 20 students in a session.
5. Appointment of Supervisor: A supervisor shall be a full-time teacher working with the college/institute concerned. However, in case of non-availability of adequate number of full-time teachers, an ad-hoc or CHB teacher can be appointed as a supervisor. In certain cases, an industry professional or subject expert can also be appointed as a supervisor by the Principal of college. Supervisors shall not claim any additional remuneration/honorarium for guiding students.
6. Guidelines for Research Project:
    a. Objective:- Every student will be assigned a project in 3rd and 4th Semesters and it will be pursued by him/her under the supervision of an internal supervisor. The objective of the Project Work is to help the student develop his/her ability to apply multidisciplinary concepts, tools and techniques to solve organizational problems and/or to evolve new/innovative theoretical frame work.
    b. Types of Project: The Project may take any one of the following forms (not limited to these):
        i. Comprehensive case study (covering single organization/ multifunctional area problem, formulation, analysis and recommendations)
        ii. Inter-organisational study aimed at inter-organisational comparison/ validation of theory/survey of management services.
        iii. Evolution of any new conceptual / theoretical framework. iv) Business Plan/Viability Studies
        iv. Field study (Empirical study).
        v. Software analysis, Design and solutions for organisational achievement (Applicable to IT/Ecommerce)
    c. Selection of Project Topic. -
        • Project topic has to be selected with respect to the programme of study and area elected by the student.
        • Title of the project should clearly specify the objective and scope of the study. It should be specific and neither too vague nor centralistic. The topics should be designed meticulously. It can be designed like "Employee Welfare Measures" – A case study of XYZ Ltd.

• Project selection has to be made in consultation with the supervisor who will act as a Project guide for the student. The Project Guide/Supervisor shall approve the title and project synopsis in the initial phase of the project.

d. Scope of Work: - The student is expected to carry out following activities in the project:
   1. Prepare a synopsis and get it approved by the supervisor as assigned by the respective Institutes. **Approved synopsis shall be part of final report as appendix.**
   2. Undertake a detailed literature survey on the subject matter.
   3. Make relevant data collection/observation.
   4. Consult experts of the field.
   5. Visit related organizations/institutions/industries.
   6. Compile data in proper format.
   7. Make proper conclusion/recommendations.
   8. Prepare a Project Report.
   9. The volume of the project-report should be ranging from 60-80 pages.
   10. Obtain approval of Project Report by project supervisor.
   11. Submit a hard-bound copy of the Project Report at the Institute.

e. **Submission of the Research Project Report:** Every student shall submit a Hard Copy of the Research Project Report duly signed by the student and supervisor to the college/institute one month prior to the date of the commencement of the 3rd and 4th Semester Examinations for M. Com. Following documents are required to be submitted with the Research Project Report:
   i. A certificate from the Supervisor to the effect that the candidate has satisfactorily completed the Project work for not less than one session and that the Project work is the result of the candidates own work and is of sufficiently high standard to warrant its presentation for examination
   ii. A declaration by the candidate that the Project is the result of his/her own research work and the same has not been previously submitted to any examination of this University or any other University. The Project shall be liable to be rejected and /or cancelled if found otherwise.
   iii. A certificate obtained through anti-plagiarism software stating that the original content of the project work report is more than 80% must be attached at the beginning of the project report and/or A certificate from the Supervisor to the effect that the candidate has not copied / plagiarised the contents of project report and that the supervisor has ensured the originality & authenticity of data /contents incorporated in the project report.

f. General Format of the Report: The project report should preferably be written in the following format (The format may vary depending on the nature of research topic):
   i. Executive Summary
   ii. Introduction to topic
   iii. Research Methodology
   iv. Analysis and Findings of the study
   v. Conclusions and Recommendations
   vi. Bibliography

7. The College/Institute, on receipt of the report from student, shall schedule the open defence seminar by a student before commencement of Session End Examination.

8. The open defence seminar by a student shall be evaluated by the supervisor/mentor assigned to a student (as an internal examiner) and an external examiner appointed by the college/institute.
9. **Appointment of External Examiner:** The External Examiner for evaluation of Research Project Report shall be appointed by the University through its established rules and procedures. The remuneration (Rs. 100 per student), TA/DA or Conveyance Allowance to external examiner may be paid by the college/Institute which will be reimbursed by the university as per established rules.
10. The Internal Examiner and External Examiner shall jointly evaluate the report submitted by the student and her/his seminar and shall immediately submit the evaluation report in the prescribed format provided along with.
11. The College/Institute shall submit marks obtained by students to the university as per prevalent system within 3 days of evaluation.

Semester-___ Master of Commerce (M. Com) (OBE-NEP) Summer-20__
EVALUATION REPORT OF PROJECT REPORT & VIVA VOCE OF 100 MARKS

Major: _____

Name of Student: -_____

Roll No._____

Project Title: _____

Name of the Supervisor: _____

Parameters	Score out of	Marks Scored
Research Project Proposal/Synopsis (SUBMITTED AND ATTACHED AS ANNEXURE TO PROJECT REPORT) Identification of Problem Domain Research Gap Objectives Methodology Research Frame Sampling Method, Sample Size, Sample characteristics, Sample Frame Justification of Objectives and Methodology Steps to solve the defined problem Data collection Methods Primary & Secondary Data Targeted Respondent Population **Clarity About** Data Collection Tools & Techniques Classification & Graphical Representation of data Hypothesis Testing Concluding Remarks **Proposed Chapter Scheme**	20 Marks	
Literature Review Data to be collected from authenticated sources Literature Review with respect to Research gap Focused Information to be gathered from multiple reliable Secondary data sources The researcher needs to review at least 10 Research papers related to the specified research topic published in last 5 years	10 Marks	
Data Collection, Field Work & Analysis Questionnaire formulation & Designing Pilot Study and Application Field Visit and data collection Data Reliability & Validity Data Sanitization Classification & graphical Representation Hypothesis Testing Conclusion & Finding	25 Marks	
Project Report and References Declarations and Undertaking/Plagiarism Report Project report in the specified format References and citations Annexures	10 Marks	
Discussion and Specific Conclusions Future work outlined	10Marks	
Oral Presentation and viva voce Contents of presentations Communication & Delivery Q & A	25 Marks	
	TOTAL MARKS SCORED OUT OF 100	
Name & Signature of External Examiner	**Name & Signature of Internal Examiner**	

IMPORTANT NOTE: Above format shall be used separately for 3rd and 4th semesters as a student is carrying out different projects in these semesters.

Rubric for Evaluation of Research Project Work

	Excellent (80-100% Marks)	Good (60-79% Marks)	Average (50-59% Marks)	Poor (Less than 50% Marks)
Synopsis: Identification of Problem Domain and Detailed analysis of Feasibility, Objectives and Methodology of Project Proposal	• Detailed and extensive explanation of the purpose and need of the project • Detailed and extensive explanation of the specifications and the limitations of the existing Systems All objectives of the proposed work are well defined;	Good explanation of the purpose and need ofthe project • Collects a great dealof information and good study of the existing systems; • Good justification tothe objectives; Methodology to be followed is specified but detailing is not done	Average explanation of the purpose and needof the project; • Moderate study ofthe existing systems; collects some basic information • Incomplete justification to the objectives proposed; Steps are mentioned but unclear; without justification to objectives	• Moderate explanation of the purpose andneed of the project • Explanation of the specifications and the limitations of the existing systems not very satisfactory; limited information
Quantity & Quality of Literature Review	• Informati on is gathered from multiple, research-based sources.	• Informatio n is gathered from multiplesources.	• Information is gathered from a limitednumber of sources.	• Information is gathered from a singlesource.
Project Report and References	Project report is according to the specified format References and citations are appropriate and well mentioned	Project report is according to the specifiedformat • References and citations are appropriate bnot mentioned well	Project report is according to the specifiedformat but some mistakes • In-sufficient references and citations	• Project report not prepared according tothe specified format • Referenc es and citations are not appropriate
Discus sion and Concl usions	Discussion and conclusions tie the problem statement, experiments, and resultswell to tell an overall story. Future work clearly outlined.	Some discussion and conclusions drawn, but missing some pointsin terms of linkage of results to problem statement	Major components missing in thediscussion *Little attempt to tie together experiments and problem statement/claims	• Little discussion or conclusions drawn.
Oral Presentation and viva voce	Contents of presentations are appropriate and well Delivered Clear voice with good spoken language	• Contents of presentations are appropriate but not welldelivered • Eye contact withonly	• Contents of presentations are appropriate but not welldelivered • Eye contact with only	• Contents of presentations are not appropriate and not well delivered • Poor eye

	and eye contact with Audience Comprehensive Q&A for all questions	few people and unclear voice • Comprehens Ive Q&A for some questions	few people and unclear voice Average Q&A	contactwith audience and unclear voice • Poor Q&A

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Annexure - IV

M. Com. Semester - I

C 4- Research Methodology

(Common for all Major Subjects)

Course Outcomes (COs)/Learning Outcomes: On successful completion of this course, the learner will be able to -	
CO 1	Formulate a research problem and identify appropriate research design for a specific research problem
CO 2	Construct a data collection tool and identify appropriate processing tools for verification of hypothesis
CO 3	Articulate research findings and be able to present the findings in research report
CO 4	Understand various dimensions related to Intellectual Property Rights

Unit I: Concept of Research

Meaning, objectives and types of research, research approach, motivation of research, research process, research plan and design, Research problem selection, definition techniques, components of research design, features of good design, steps in sample design, characteristics of good sample design, probability and non probability sampling.

Unit II: Data collection

Measurement and scaling techniques, scaling and scale construction techniques. Methods of data collection, use of computers and IT in data collection, field work, survey plan, data coding, editing, tabulation, analysis of data, Data collection and processing tools of analysis, Hypothesis testing- concept of hypothesis, characteristics of hypothesis, hypothesis formulation, procedure for hypothesis testing, Use of statistical techniques for testing of hypothesis.

Unit III: Report writing

Qualities of Good report, layout of a project report, preparing research reports, concepts of report, format orders, steps in report writing, precautions in report writing, Plagiarism, prefacing, Bibliography, referencing, citation, software packages, Research prospects in commerce.

Unit IV : IPR

Concept of intellectual property, types of intellectual property, patents copy right, types and features, significance of IPR, Global and Indian scenario of intellectual property, process of filing patents and copy right, regulatory organisation governing intellectual property in India.

Reference Books:

1. Business Research Methods – Donald Cooper & Pamela Schindler, TMGH, 9th edition
2. Business Research Methods – Alan Bryman & Emma Bell, Oxford University Press.
3. Research Methodology – C.R.Kothari

4. Select references from the Internet

Question Paper Pattern

Time - 3 Hrs | Max. Marks -80

Q. 1	A) Unit I ----------	8 Marks
	B) Unit I ----------	8 Marks
	OR	
	C) Unit I ----------	16 Marks
Q2.	A) Unit II ----------	8 Marks
	B) Unit II ----------	8 Marks
	OR	
	C) Unit II ----------	16 Marks
Q.3.	A) Unit III ----------	8 Marks
	B) Unit III ----------	8 Marks
	OR	
	C) Unit III ----------	16 Marks
Q.4.	A) Unit IV ----------	8 Marks
	B) Unit IV ----------	8 Marks
	OR	
	C) Unit IV ----------	16 Marks
Q.5.	A) Unit I ----------	4 Marks
	B) Unit II----------	4 Marks
	C) Unit III----------	4 Marks
	D) Unit IV----------	4 Marks