SOPHIA GIRLS' COLLEGE (AUTONOMOUS), AJMER

SESSION 2023-24

Criterion 1: Circular Aspects

1.1.3 Report of Skill Enhancement and Employability Activities.

SOPHIA GIRLS' COLLEGE
(AUTONOMOUS) AJMER

Scheme of Examination
And
SYLLABUS

BATCH 2023

FOR

Four-Year UnderGraduate Program
(Arts)

Under
Choice Based Credit System (NEP)

Semester - I to II

BACHELOR OF ARTS

Eligibility for admission in First Year of BA is 10+2 examination of anyBoard with at least 45% marks. With regard to admission on reserved category seats government rules will be applicable

SCHEME OF EXAMINATION

The number of the paper and the maximum marks for each paper together,with the minimum marks required to pass are shown against each subject separately. It will be necessary for a candidate to pass in the theory as well as the practical part of a subject/paper, wherever prescribed, separately.

Classification of successful candidates shall be as follows:

First Division 60%	of the aggregate marks prescribed in Semesters I to VI taken together
Second Division 50%	

All the rest shall be declared to have passed the examination.

- For passing a candidate shall have to secure at least 40% marks in eachcourse (Theory and Practical separately).
- No division shall be awarded in Semesters I to V.
- Whenever a candidate appears for a due paper examination, she will doso according to the syllabus in force.
- A candidate not appearing in any examination/absent in any paper ofterm end examination shall be considered as having DUE in thosepapers.

End Semester Examination Pattern

Maximum Marks: 70 **Duration: 2½Hrs**

Section A **10 × 1 = 10 Marks**

Contains 10 Questions of 1 mark each and all are compulsory. Three questions from each unit and one extra question from any one unit

Section B **5+5+5 = 15 Marks**

Contains 3 questions with internal choice (Two questions from each unit). A student has to attempt 3 questions, choosing at least one question from each unit.

Section C **15 × 3 = 45 Marks**

Contains 3 questions with internal choice (Two questions from each unit). Each Question carries 15marks. A Student has to attempt 3 questions, choosing at least one question from each unit.

FYUP CREDIT SCHEME 2023

STRUCTURE OF 3 YEAR UNDERGRADUATE PROGRAM BASED ON NEP (NON- PRACTICAL SUBJECTS)

SEM	Honours With Research	Multi-Disciplinary Course	AbilityEnhancementCourse (AEC)	Skill Enhancement Course	Value Added Course	Summer Internship/ Social Outreach	Research Project OR Dissertation	Total	
	Required Credit for Major Course (4)	Total Required Credit (3) (6)	Total Required Credit (2) (6)	Total Required Credit (3) (9)	Total Required Credit (2) (8)	Total Required Credit (3)	Total Required Credit 20	Credit	Marks
Sem-I	MAJOR A (4) MAJOR B (4) MAJOR C (4)	MDC-I (3)	AEC-104 General English	SEC-I	-	-	-	20	500
Sem-II	MAJOR A (4) MAJOR B (4) MAJOR C (4)	MDC-II (3)	AEC-105 General Hindi	-	VAC-I Physical Fitness	ISO – 25 (1)	-	20	500
Total	**24**	**6**	**4**	**3**	**2**	**1**		**40**	**1000**
The allocation of the 2 Majors and minor subject is strictly based on merit (Performance in Sem - I & II)									
The student requires 40 credits during the first year of the undergraduate program for qualifying for an Undergraduate Certificate								**40**	1000
Sem-III	MAJOR-A1(4) MAJOR-A2(4) MAJOR-B1(4) MAJOR-B2(4) MINOR-C(4)	-	-	-	VAC-III GEN-106-Env. Cons. (2)	-	-	22	550
Sem-IV	MAJOR-A1(4) MAJOR-A2(4) MAJOR-B1(4) MAJOR-B2(4) MINOR-C (4)	-	50 COMM.ENG (2)	-	-	-	-	22	550
Total	**40**	**-**	**2**	**-**	**2**	**-**		**44**	**1100**
	64	**6**	**6**	**3**	**4**	**1**		**84**	**2100**
The student requires 84 credits during the second year of the undergraduate program for qualifying for a Diploma									
Sem-V	MAJOR-A1(4) MAJOR-A2(4) /DSE-A2 MAJOR-B1(4) MAJOR-B2(4) /DSE-B2	-	-	**SEC-V (3)**	VAC-V Moocs/swayam/ EEA(1)	ISO - 50 (2)	-	22	550
Sem-VI	MAJOR-A1(4) MAJOR-A2(4) /DSE-A2 MAJOR-B1(4) MAJOR-B2(4) /DSE-B2	-	-	**SEC-VI (3)**	VAC-VI Democratic awareness with legal literacy/ NSS/NCC(3)	-	-	22	550
Total	**32**	**-**	**-**	**6**	**4**	**02**	**-**	**44**	**1100**
	96	**6**	**6**	**9**	**8**	**3**		**128**	**3200**

On successful completion of three years, the relevant Undergraduate Degree shall be awarded. A Bachelor's degree requires 128 credits

4 YEAR UNDER GRADUATE HONOURS PROGRAM

Sem-VII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	-	-	MAJOR-A3 (6) /DSE-A3 MAJOR-A4(6)	24	400
Sem-VIII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	-	-	MAJOR-A3 (6) MAJOR-A4(6)	24	400
Total	**24**	-	-	-	-	-	**24**	**48**	**800**
	120	**6**	**6**	**9**	**8**	**3**	**24**	**176**	**4000**

On the successful completion of the fourth year, a student shall be awarded an HONOURS Degree.A Bachelor's degree with Honours requires a total of 176 credits(to have an Honours Degree Major Subject should have 50% of total credits)

4 YEAR UNDER GRADUATE HONOURS WITH RESEARCH

Sem-VII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	- -		MAJOR-A3 (6) /DSE-A3 MAJOR-A4 Research Methodology(6)	24	400
Sem-VIII	MAJOR-A1(6) MAJOR-A2(6)	-		-	- -	- -	Research Project-II(12) **OR** Dissertation-II(12)	24	400
Total	**24**	-	-	-	-	-	**24**	**48**	**800**
	120	**6**	**6**	**9**	**8**	**3**	**24**	**176**	**4000**

On the successful completion of the fourth year, a student shall be awarded a Degree Honours with Research.
A Bachelor's degree of Honours with Research requires a total of 176 credits

OUTLINE FOR UNDERGRADUATE COURSES UNDER NEP

The UGC has formulated a new student-centric "Curriculum and Credit Framework for Undergraduate Programmes (CCFUP)" incorporating a flexible choice-based credit system, multidisciplinary approach, and multiple entry and exit options. This will facilities students to pursue their career path by choosing the subject/field of their interest.

The NEP 2020 undergraduate curriculum is a significant shift towards a more student-centric and flexible learning experience. It empowers students to design their own educational journeys and graduate with the knowledge and skills to thrive in the 21st century workforce.

Undergraduate degree programmes of either 3 or 4-year duration, with multiple entry and exit points and re-entry options, with appropriate certifications such as:

- A UG Certificate after completing 1year (two semesters) of study in the chosen fields of study.
- A UG Diploma after 2 years (four semesters) of study.
- A Bachelor's degree after a 3-year (six semesters) programme of study.
- A 4-year bachelor's degree (Honours) after eight semesters programme of study.
- If the student completes a rigorous research project in their major area(a) of study in the 4th year of a bachelor's degree (Honours with Research).

Course Under Choice Based Credit System (CBCS)

1. **Major Discipline:**
    a. **Discipline Specific Core Courses (DSCC):** A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core Course. Each core course carries 4 credits for non-practical course and for practical core course carries 4 credits (3 theory + 1 practical).
    b. **Discipline Specific Elective (DSE):** Choice of specific topics as per a student's need. Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective. Each core course carries 4 credits.
2. **Minor Course:** is a program that allows students to explore topics that cross traditional academic boundaries. These are designed to foster a more holistic and flexible education, encourage students to develop a broader skill set and a diverse knowledge base. Each minor course carries 4 credits.
3. **Multi-Disciplinary Course (MDC):** MDC are designed to bridge gaps between traditional academic boundaries, allowing students to explore and integrate knowledge from multiple disciplines. MDC courses offer a broad perspective and encourage creative problem-solving by exposing students to a range of subjects, 3 credits is assigned to MDC, students can select MDC in Semester 1 and 2. Student take elective courses outside their major, fostering cross-disciplinary knowledge.
4. **Ability Enhancement Core Courses (AECC) :**AECC are a category of courses designed to help students develop essential skills and knowledge that enhance their overall learning experience and personal development. It carries 2 credits each in Semester 1, 2 and 4.
5. **Skill Enhancement Course (SEC):** SEC are designed to equip students with practical skills and competencies that are relevant to the workforce and society. Skill-based education and vocational training to ensure students are employable and can contribute to economic and social needs. SEC has 3 credits each in semester 1, 5 and 6. These courses may be choosen from the SEC table as given in Semester 1, 5 and 6.
6. **Value Added Course (VAC):** VAC are designed for holistic development, encourage interdisciplinary learning, and prepare students for the demands of the modern workforce.These courses offer flexibility and can be tailored to meet emerging trends and industry needs. These courses are available in Semester 2, 3, 5 and 6. Each VAC carries 2 credits.
7. **Social Outreach / Summer Internship (SOR):** Community service involve students engaging in activities that benefit their communities, fostering a sense of social responsibility and civic engagement. SOR carries 3 credits each in Semester 2 and 5.
8. **Project, Dissertation & Internships:** These activities play a significant role in the NEP, as they offer students practical experience, real-world exposure and the opportunity to apply their knowledge to real-world situations. These elements are designed to bridge the gap between academic learning and industry requirements, ensuring that graduates are better prepared for employment or further studies.

Program Outcome

Program outcomes for a Bachelor of Arts (B.A.) program, designed to align with the guidelines of the National Assessment and Accreditation Council (NAAC) and the National Education Policy (NEP) 2020 in India:

1. **Enhancement of knowledge and understanding**: Students will be able to **analyze** and **evaluate** texts, theories, and concepts across various disciplines within the humanities and social sciences, fostering informed reasoning and decision-making.

2. **Communication Skills and Digital Literacy**: Students will be able to **articulate** ideas clearly and persuasively in effective **written** and **verbal** communication. They will also demonstrate proficiency in using digital tools and technologies for research, communication, and collaboration.

3. **MoralEthical Awareness and reasoning**: Students will be able to **apply** moral and ethical principles in day to day life, enabling them to make morally & ethically sound decisions in personal and professional settings.

4. **Environmental Sustainability and Cultural Awareness:** Students will be able to assess and evaluate both human and natural environment, changes and their impacts on ecosystems and human societies, proposing sustainable management strategies.
5. **Community Engagement, Social Responsibility and Service:** Students will be able to sensitize towards community service and outreach programs, fostering a sense of civic responsibility and engagement with societal issues.

6. **Critical Thinking and Analytical Reasoning:** Students will be able to to analyse, evaluate and interpret evidence, arguments and claims. They will also critically evaluate practices, policies and theories to develop knowledge and understanding; able to envisage the reflective thought to the implication on the society.

DEPARTMENT OF ECONOMICS

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MJECO-101	PRINCIPLES OF MICROECONOMICS	Major	04	04	10	20	70	40/100
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJECO101 – PRINCIPLES OF MICROECONOMICS

Max. Marks: 100 **Min. Marks: 40**
Credits: 04 **Duration: 2½ hrs.**

Course Outcome:

On successful completion of the course the students will be able to-

1. Enhance their knowledge and understand the basic framework of micro-economics.
2. Analyse and evaluate the consumer and producer behaviour.
3. Interpret and apply the concept of equilibrium under different market conditions.

UNIT I

Introduction to Economics, Demand and Supply

Nature and scope of economics, Basic Concepts in Economics, the economic problem: the question of what to produce, how to produce and for whom to produce. Mankiw's ten principles of economics.

Demand: meaning and determinants of demand, demand schedule, law of demand, exceptions to the law of demand, elasticity of demand: meaning, types: price, income and cross elasticity, measurement of elasticity of demand.

Supply: concept of supply, determinants of supply.

Market Equilibrium: how prices allocate resources, types of equilibrium: static and dynamic.

UNIT II

Consumer Behaviour and Production Function

Cardinal Approach: Utility, Law of Diminishing Marginal Utility, Equi-marginal Utility, Consumer's Equilibrium, Consumer Surplus and its application.

Ordinal Approach: Indifference curve, Indifference map. Indifference schedule, Properties of Indifference Curve, Budget Line, Consumer's Equilibrium, Price, Income and Substitution Effect (Hicks and Slutusky)- Inferior v/s Giffen Goods, Engle Curve.

Production Function: Law of Variable Proportion, Isoquants: meaning and properties, Law of Returns to Scale, Least-Cost Combination.

UNIT III

Cost, Revenue and Output Determination under Different Markets

Cost: concepts, types and cost output relationship in the short and long run.

Revenue: Concepts (AR, MR and TR), relationship between AR, MR and e.

Price and Output Determination under Different Markets: types of market- perfect and imperfect market. Meaning and features of perfect competition, monopoly, monopolistic market and oligopoly.Price and Output Determination under perfect competition, monopoly and monopolistic market .Price discrimination under monopoly.

Reference Books:

- Samuelson P.A & W.O Nordhaus (1998), Economics 16th Edition, Tata McGraw Hill, New Delhi.
- Mankiw. Gregory. N (2007), Economics: Principles & Applications 4th Edition, India edition by South Western a part of Cengage Learning, Cengage Learning India Pvt. Ltd.
- Koutsoyiannis, A (1979), Modern Microeconomics, 2nd Edition, Macmillan Press, London.
- Verian H. (2000), Microeconomics Analysis, W.W Norton, New York.
- Ahuja H.L (2003), Advanced Economic Theory: Microeconomic Analysis, 13th Edition, S. Chand & Co. Ltd., New Delhi.
- Sen, A (1999), Microeconomics: Theory & Applications, Oxford University Press, New Delhi.
- Pindyck, R.S, D.L Rubinfield& P.L Mehta (2008), Microeconomics, 6th Edition, Dorling Kinderslay (India) Pvt. Ltd., Licenses of Pearson Education in South Asia.

Additional Reading

- Varian H.R (2000), Intermediate Microeconomics: A Modern Approach, 5th Edition, East-West Press, New Delhi.
- Case K.E & Ray C. Fair (2007), Principles of Economics, Pearson Education Inc., 8th Edition.
- Stiglitz J.E & Carl E. Walsh (2007), Economics 4th Edition, W.W Norton & Company Inc. New York, International Student Edition.

Course Structure in Semester II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MJECO-201	PRINCIPLES OF MACROECONOMICS	Major	04	04	10	20	70	40/100
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
ISO	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MJECO-201- PRINCIPLES OF MACROECONOMICS

Max. Marks: 100 **Min.Marks: 40**

Credits: 04 **Duration: 2½hrs.**

Course Outcome:On successful completion of the course the student will be able to-

1. Analyze and evaluate macroeconomic concepts,
2. Evaluate classical and Keynesian theories of employment, income, and output.
3. Analyze consumption theories and trade cycle models to propose sustainable economic strategies.

UNIT I

Introduction to Macroeconomics and National Income Accounting

Introduction to Macro Economics: Nature of Macroeconomics and its significance; Indicators of Macroeconomic activity – key concepts: Stock and flow variables

National Income Accounting: Measurement of Macro variables and economic performance; National Income accounting concepts – GNP, GDP, NNP, NDP, NI, PI, DPI, Real GDP v/s Nominal GDP, GDP Deflator; Methods of estimating NI – Expenditure method, Income method and Value added method; Difficulties in NI Accounting.

UNIT II

Classical and Keynesian Macroeconomics

Classical Theory: Introduction to classical theory of employment – Basic assumptions of classical school of thought – Say's Law of market – Determinants of output, employment, savings, investment, wages, prices, interest rate – Equilibrium output and employment; Implications of classical full employment model, Model critical evaluation

Keynesian Macroeconomics: Principle of effective demand, Keynesian theory of output, income and employment – Equilibrium Income and output in simple 2 sector model, 3 sector model and 4 sector model. Keynes Psychological Law of Consumption, Concept of multiplier.

UNIT III

Theories of consumption and Trade cycle

Theories of consumption: Absolute Income, Relative Income, Permanent Income and Life cycle hypothesis.

Trade cycle: Introduction to the trade cycle, Concept of accelerator; the multiplier Accelerator Interaction; Samuelson and Hick's Trade cycle; Kaldor's view on trade cycle.

Reference Books:

- Shapiro, E. (1996), Macroeconomic Analysis, 5th Edition, Galgotia Publications, New Delhi
- Mankiw (2007), Principles of Macroeconomics, 4thEdition, Thomson South-Western, a part of Cengage Learning, Cengage Learning India Pvt. Ltd.
- Dornbauch, R. &F.Stanley (1997), Macroeconomics, McGraw Hill Inc., New York
- Ahuja, H.L (2011), Macroeconomics- Theory and Policy, S. Chand & Co. Ltd., New Delhi
- K.C Rana& K.N Verma, (2014) Macroeconomics Analysis, Vishal Publishing house.

Additional Reading:

- Errol D'Souza (2008), Macroeconomics, Dorling Kindersley (India) Pvt. Ltd., Pearson Education in South Asia
- Branson, W.H., Macroeconomic Theory & Policy, Harper and Row, New York
- Blanchard Olivier & Fisher Stanley, Lectures on Macroeconomics, Cambridge, MIT Press

DEPARTMENT OF ENGLISH

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJENG-101	Modern English Usage and Communication Skills	Major	04	04	10	20	70	40/100
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJENG-101: Modern English Usage and Communication Skills

Max. Marks: 100 **Min. Marks: 40**

Credits: 04 **Duration: 2½ hrs.**

Course Outcomes: After the successful completion of the paper, the student will be able to –

1. To comprehend the basics of English Language and Grammar.
2. To employ and enhance reading and writing skills.
3. To demonstrate the latest trends in language and communication.

UNIT -I

- Grammar and Usage
- Determiners
- Tense, Aspect, Voice
- One Word Substitution
- Synonyms, Antonyms, Homonyms, Homophones
- Word Classes
- **Concepts and Notions** – Requests, Orders, Questions, Conditions, Purpose, Suggestion, Wish, Hope, Intention, Obligation, Permission, Likelihood, Possibility, Ability, Cause, Willingness, Comparison and Contrast, Concession (Different concepts and notions and their manner of expression, Basic Sentence Patterns [According to A.S. Hornby]
- Phrasal Verbs
- Idioms

UNIT –II

- Comprehension
- Letter Writing: Business Letters: Formal and Informal Letters, CV, Resume

UNIT –III

- English Phonetic Symbols, Transcription, Word Stress
- Literary Appreciation- Poetry and Prose

Reference Books:

- English at Home (ELBS) -W. R Lee
- A Guide to Patterns and Usage (ELBS) -A.S. Hornby
- Attitude to English Usage (OUP) -Mittens et. Al
- Advanced English Practice (OUP) - B.D Graver
- A Reference Grammar of English -R. A Close

- Prose and Poetry Appreciation -L. G Alexander

Course Structure in Semester – II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJENG-201	English Literary and Social History	Major	04	04	10	20	70	40/100
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MJENG-201: English Literary and Social History

Max. Marks: 100 **Min. Marks: 40**
Credits: 04 **Duration: 2½ hrs**

Course Outcomes: After the successful completion of the paper, the student will be able to –

1. Explain the relevant conditions during various literary ages.
2. Identify the major literary trends of the ages prescribed in the syllabus.
3. Evaluate the issue of race, gender and class in the 21st Century.

Definition, features/characteristics, examples, important figures and works of the following Ages

Unit I

- Mystery, Miracle and Morality plays, Interludes
- University Wits
- Renaissance and Reformation
- Elizabethan Literature (Poetry and Drama)
- Metaphysical poetry
- Neo –Classicism

Unit II

- Literature of Pre-Romantic and Romantic Age
- Literature of Victorian Age, Growth of the Novel
- Literature of Pre-Raphaelite Age

Unit III

- Literature of the Twentieth Century
- Literature of the Modern Age
- Literature of the Post-Modern Age

Prescribed Text:

- Glossary of Literary Terms by Abrams & Geoffrey Galt Harpham
- Dictionary of Literary Terms and Literary Theory by M.A. R Habib and J.A Cuddon

- Oxford Dictionary of Literary Terms

Reference Books:

- An Outline History of English Literature - Hudson
- The Story of Civilisation -Will & Ariel Durrant
- The Critical Temper - Martin Tucker
- The History of English Literature -Compton &Rickett
- The Social and Literary History of England - Legouis & Cazamian

DEPARTMENT OF GEOGRAPHY

Course Structure in Semester – I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJGEO-101	Physical Geography-I (Elements of Geomorphology)	Major	03	03	5	20	50	30/75
MJGEO-102	Practical: Basics of Cartography (Contours and Profiles)	Major	02	01	-	-	25	10/25
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJGEO-101: PHYSICAL GEOGRAPHY–I

(Elements of Geomorphology)

Max. Marks: 75 **Min. Marks: 30**
Credit: 03 **Duration: 2½ hrs**

Course Outcomes: On successful completion of the Course the student will be able to:

1. Identify the concepts of origin of earth and its various landforms.
2. Illustrate the different forces acting over the earth.
3. Compare and analyze the different cycles of landform erosion and their processes.

UNIT I

Origin of the Earth: Big Bang Theory; Earth's interior: Structure and Zoning of the Earth's interior: Constitution of earth's interior on the basis of evidence from seismology, temperature, density, pressure and chemical composition; Forces of the Earth: Endogenetic and Exogenetic; Folds and Faults; Theories of Isostasy-Airy & Pratt.

UNIT II

Origin of Continents and Oceans: Wegener's Continental Drift Theory, Plate tectonics, Sea-floor spreading; Volcanoes: distribution and related landforms; Earthquakes: occurrence and distribution, consequences and preparedness.

UNIT III

Rocks: Igneous, Sedimentary and Metamorphic; Denudation: Weathering and its types, Mass Wasting, Erosion and resulted landforms: Work of River, Glacier, Wind, and Karst, Critical analysis of Davis & Penck Cycle of erosion.

Reference Books

1. Bloom, A. L. (2003). Geomorphology: A Systematic Analysis of Late Cenozoic Landforms. New Delhi: Prentice-Hall of India.
2. Bridges, E. M. (1990). World Geomorphology. Cambridge: Cambridge University Press.
3. Christopherson, Robert W. (2011). Geosystems: An Introduction to Physical Geography 8 Ed. England: Macmillan Publishing Company.
4. Ernst, W.G. (2000). Earth systems: Process and Issues. Cambridge: Cambridge University Press.
5. Gautam, A. (2010). Bhautik Bhugol. Meerut: Rastogi Publications.
6. Kale, V and Gupta, A. (2001). Elements of Geomorphology. Calcutta: Oxford University Press.
7. Kale, V. S. and Gupta, A. (2001). Introduction to Geomorphology. Hyderabad: Orient Longman.
8. Knighton, A. D. (1984). Fluvial Forms and Processes. London: Edward Arnold Publishers.
9. Richards, K. S. (1982). Rivers: Form and Processes in Alluvial Channels. London: Methuen.
10. Selby, M.J. (2005). Earth's Changing Surface. United Kingdom: OUP.
11. Singh, S. (2009). Bhautik Bhugol ka Swaroop. Allahabad: Prayag Pustak.
12. Skinner, Brian J. and Stephen, C. (2000). The Dynamic Earth: An Introduction to physical Geology. John Wiley and Sons.
13. Steers, J.A. (1964). The Unstable Earth, Some recent views in geography. New Delhi: Kalyani Publishers.
14. Strahler, A.N. and Strahler, A.H. (2005). Modern Physical Geography. John Wiley & Sons. Revised edition.
15. Thornbury, W. D. (1968). Principles of Geomorphology. Wiley.
16. Tikkaa, R. N. (1989). Bhautik Bhugol ka Swaroop. Meerut: Kedarnath Ram Nath.

Pedagogy: The teacher may familiarize the students with Indian examples of landforms with photographs and diagrams. In case it is possible, short field trips may be organized.

MJGEO- 102: PRACTICAL: BASICS OF CARTOGRAPHY

(CONTOURS & PROFILES)

Max. Marks: 25 **Min. Marks: 10**

Credit: 01 **Duration: 2 hrs**

Written Test	**15 Marks**
Record Work	**05 Marks**
Viva	**05 Marks**

Course Outcomes:

1. Understanding the nature of relief features.
2. To develop skills and competency regarding area analysis.
3. Portraying the relief features with applying of contours and profiles.

1. Representation of different landforms by Contours -
   - Hill
   - Plateau
   - Cliff
   - Waterfall, Ridge
   - Types of Valleys
   - Types of Slopes

2. Drawing of Profiles-
   - Superimposed
   - Composite
   - Projected profiles
   - Their relevance in landform mapping and analysis.

Reference Books

1. Kannan M & Yadav S (2022). Practical Geography, Rawat Publications, Jaipur
2. Misra, R.P & Ramesh. (1986). A Fundamentals of Cartography. New Delhi: McMillan Co.
3. Monkhouse, F. J. and Wilkinson, H. R. (1973). Maps and Diagrams. London: Methuen.
4. Pal, S.K. (1998). Statistics for Geoscientists Techniques & Applications. New Delhi.
5. Rhind, D. W. and Taylor, D. R. F. (2000). Cartography: Past, Present and Future. International Cartographic Association.
6. Robinson, A. H., (2009). Elements of Cartography. New York: John Wiley and Sons.
7. Robinson, A.H. (2000). Elements of Cartography. U.S.A.: John Wiley & Sons.
8. Sarkar, A. K. (2005). Practical Geography: A Systematic Approach. Calcutta: Oriental Longman.
9. Sharma, J. P. (2010). Prayogic Bhugol. Meerut: Rastogi Publishers.
10. Singh, R.L. and Dutt, P.K. (2010). Elements of Practical Geography. New Delhi: Kalyani Publishers.

Pedagogy: The elements of practical geography will be conveyed to students through charts, map and diagrams for effective learning. Students will be making a practical file abd will learn to use instruments available in the geography lab.

Course Structure in Semester – II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJGEO-201	Physical Geography-II (Climatology and Oceanography)	Major	03	03	5	20	50	30/75
MJGEO-202	Practical Study of Weather Maps	Major	02	01	-	-	25	10/25
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
ISO	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MJGEO-201: PHYSICAL GEOGRAPHY–II

(CLIMATOLOGY AND OCEANOGRAPHY)

Max. Marks: 75 **Min. Marks: 30**
Credit: 03 **Duration: 2½ hrs**

Course Outcomes: On successful completion of the Course the student will be able to:

1. Understand the meaning and significance of Climatology.
2. Explain various climatic phenomenon and deduce measures to control global environmental concerns.
3. To build insights of Oceanography and analysis of hydrological phenomena

A. CLIMATOLOGY

UNIT - I

Nature and Scope of Climatology: Weather and Climate, Composition and Structure of Atmosphere; Insolation; Heating and Cooling of the Atmosphere; Heat Budget; Atmospheric Temperature; Factors controlling the temperature; horizontal and vertical distribution of temperature; Inversion of Temperature; Atmospheric Pressure: Vertical and Horizontal Distribution of Pressure.

UNIT-II

Winds: Planetary, Periodic and Local winds (Loo, Mistral, Fohn, and Chinook); Factors affecting the winds; General circulation of winds; Air Masses and Fronts: concepts, classification and properties; Tropical and Temperate cyclones (Polar front theory); Anti-cyclone; Basis of Koppen's classification; types and characteristics.

B. OCEANOGRAPHY

UNIT-III

Definition of Oceanography; Ocean Bottom Relief: associated features of Atlantic, Pacific and Indian Ocean; Distribution of Temperature and Salinity in Oceans; Circulation of oceanic waters- Currents: Atlantic, Pacific and Indian ocean, Types of Tides; Coral Reefs: Types of Coral Reefs, Darwin's Subsidence theory of coral reef development, Marine resources and Pollutions.

Reference Books:

1. Grald, S. (1980). General Oceanography: An Introduction. New York: John Wiley & Sons.
2. Barry, R. G. and Carleton, A. M. (2001). Synoptic and Dynamic Climatology. UK: Routledge.
3. Barry, R.G. & Chorley, R.J. (1998). Atmosphere, Weather and Climate. UK: Routledge.
4. Critchfield, H. J. (1987). General Climatology. New Delhi: Prentice-Hall of India.
5. Das, P.K (1968). The Monsoons. New Delhi: National Book Trust.
6. Gupta, L. S. (2000). Jalvayu Vigyan: Hindi Madhyam Karyanvay Nidishalya. New Delhi: Delhi Vishwa Vidhyalaya.
7. Lal, D. S. (2010). Jalvayu Vigyan. Allahabad: Prayag Pustak Bhavan.
8. Patterson, S. (1969). Introduction of Meteorology. London: McGraw-Hill Book Co.
9. Sharma, R.C. & Vatel, M. (1970).Oceanography for Geographers. Allahabad: Chetnya Publishing House.

10. Shepard, F.P. (1948). Submarine Geology. New York: Harper & Sons.
11. Singh, S. (2010). Jalvayu Vigyan. Allahabad: Prayag Pustak Bhawan.
12. Strahler, A.N. and Strahler, A.H. (2005). Modern Physical Geography. John Wiley & Sons. Revised edition.
13. Stringer, E.T. (1982). Foundation of Climatology. Delhi: Surjeet Publications.
14. Trewartha, G. T. and Horne, L. H. (1980). An Introduction to Climate. McGraw-Hill.
15. Vatal, M. (1986). Bhautik Bhugol. Allahbad: Central Book Depot.
16. Weisberg, J. and Howard. (1976). Introductory Oceanography. New York: McGraw Hill Book Co.

Pedagogy

For effective teaching and meaningful learning, weather charts will be shown to students and illustrations may be drawn from local/regional weather and climatic conditions throughout the course. Efforts should be made to drive home the relevance of climatology and oceanography for the life and activities of human beings.

MJGEO- 202: PRACTICAL

STUDY OF WEATHER MAPS

Max. Marks: 25 **Min Marks: 10**
Credits: 01 **Duration: 2 hrs**

Written Test	**15 Marks**
Record Work	**05 Marks**
Viva	**05 Marks**

Course Outcomes:

1. To build basic understanding of climatic phenomena and weather maps.
2. To develop skills and competency regarding area analysis.
3. Application and interpretation of weather-related parameters.

Meaning: Elements of Weather and Climate, Brief review of Indian Meteorological Department (IMD) and its functions.

Meteorological Instruments: Drawing of meteorological instruments Thermometer, Barometer, Hygrometer, Anemometer, Wind-vane, Rain gauge station & its functions and significance.

IMD Weather Maps: Drawing of Weather symbols, Season and seasonal variations, Isobars, Isobaric Pattern, Depression, Cyclone, Calm Conditions, Forecasting etc. and its Characteristics

Season-wise detail Interpretation of IMD Weather Maps:

a. Winter Season (at least two map from each season)
b. Summer Season (at least two map from each season)
c. Monsoon Season (at least two map from each season)

d. Post-Monsoon Season (at least two map from each season) Weather Symbols, Weather Instruments, calculations regarding and Interpretation of Weather Maps.

Note- Field Visit to Metereological Department.

Reference Books

1. Misra, R.P & Ramesh. (1986). A Fundamentals of Cartography. New Delhi: McMillan Co.
2. Kannan, M. & Yadav. S. (2022). Practical Geography, Rawat Publications, Jaipur
3. Monkhouse, F. J. and Wilkinson, H. R. (1973). Maps and Diagrams. London: Methuen.
4. Pal, S.K. (1998). Statistics for Geoscientists Techniques & Applications. New Delhi.
5. Rhind, D. W. and Taylor, D. R. F. (2000). Cartography: Past, Present and Future. International Cartographic Association.
6. Robinson, A. H., (2009). Elements of Cartography. New York: John Wiley and Sons.
7. Robinson, A.H. (2000). Elements of Cartography. U.S.A.: John Wiley & Sons.
8. Sarkar, A. K. (2005). Practical Geography: A Systematic Approach. Calcutta: Oriental Longman.
9. Sharma, J. P. (2010). Prayogic Bhugol. Meerut: Rastogi Publishers.
10. Singh, R.L. and Dutt, P.K. (2010). Elements of Practical Geography. New Delhi: Kalyani Publishers.

Pedagogy: The elements of practical geography will be conveyed to students through charts, map and diagrams for effective learning. Students will be making a practical file abd will learn to use instruments available in the geography lab.

DEPARTMENT OF HINDI

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJHIN-101	आदिकालीन एवं भक्तिकालीन काव्य	Major	04	04	10	20	70	40/100
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJHIN-101: आदिकालीन एवं भक्तिकालीन काव्य (MAJOR)

अधिकतम अंक : 100 **न्यूनतम अंक :40**
श्रेय : 04 **समय : 2½ घंटे**

अध्ययन के परिणाम–
पाठ्यक्रम पूर्ण होने के बाद विद्यार्थी योग्य होंगे–

1. कवि कल्लोल,कबीर,संतवाणी,जायसी की साहित्यिक विरासत से परिचित होकर व्याख्यात्मक एवं प्रश्नों का आलोचनात्मक विश्लेषण करने में |
2. सूरदास, तुलसीदास,मीरा व रसखान के काव्य का व्याख्यात्मक कौशल विकास व प्रश्नों का समीक्षात्मक विश्लेषण करने में |
3. काव्य के गुण तथा दोष, शब्दशक्ति, प्रमुख छंद व अलंकारो की परिभाषा व उदाहरण सहित समझने में |

पाठ्य पुस्तक– प्राचीन काव्य – संपादक – डॉ. सत्यनारायण शर्मा – पंचशील प्रकाशन जयपुर

इकाई I

(1) ढोला मारूरा दूहा

नर बरदेस सुहावणउ' से 'अकथ कहाणी प्रेम की' दूहेतक (सं. रामसिंह, सूर्यकरण पारीक, नरोत्तम दास स्वामी, नागरी प्रचारिणी सभा वाराणसी)

(2) कबीर

(कबीर ग्रंथावली – श्याम सुन्दर दास, नागरी प्रचारिणी सभा, काशी)

दुलहनी गावहु ..... पुरूष एक अविनासी।
संतौ भाई आई ..... भयातम खीना।
पांडे कौन कुमति..... रामल्यो लाई।
हमनमरै..... सुख सागर पावा।
माया महाठगिनी..... हाथ बिकांनीं
झीनी – झीनी बीनी..... धरिदीनीचदरिया।
पानीबिचमीन.....क्याकासी
काहेरीनलिनी.....नहिंमुएहँमरेंजान।

गुरुदेवकौअंग

सतगुरु की महिमा ..... दिखावणहार।
रामनामकैपटतरे ..... रहीमनमांहिं।

सतगुरुसांचा ..... पड्याकलेजैछेक।
मायादीपकनर ..... एकआधउबरंत।

मनकौअंग

मनकैमतै ..... अपूठाआंणि।
मनगोरखमन ..... आपैंकरतासोई।
कबीरमनगाफिल ..... दरगहमाँहि।
कबीरमनपंछी ..... मायाकेपास।
करताथातौ..... कहाँतैंखाई।

विरहकौअंग

यहुतनजालौं ..... बरसिबुझावेअग्गि।
विरहभुवंगमतन ..... जिवेतबौराहोई।
अंषडियांझाईपड़ी ..... रामपुकारिपुकारि।
हँसि–हँसिकंत ..... नहींदुहागनिकोइ।

मायाकौअंग

त्रिषणासींचीनाबुझे ..... मेहाकुमिलाई।
मायातरवरत्रिविध ..... फलफीकौतनिताप।
कबीरमायामोह ..... रहेबसंतकूँरोई।
मायाकीझलजग ..... रुईपलेटीआग।

चितावणीकौअंग

सातोंसबदलुबाजते ..... बैसणलागेकाग।
यहुऐसासंसारहै ..... झूठेरंगिनभूल।
मिनषाजनमदुर्लभहै ..... बहुरिनलागैडार।
कबीरकहागरबिया ..... खंखरभयेपलास।
मैं–मैंबड़ीबलाई ..... रुईपलेटीआगि

(3) संतवाणी

नामदेव

(संतनामदेव–प्रकाशक, राधास्वामीसत्संगव्यास, डेराकाकाजैमलसिंह, जिलाअमृतसर, पंजाब)

हरिनांवहीरा ..... उतरैपारा।
जौलगरामनामै ..... भवजलतरिये।
कपटमैनमिले ..... नामदेवदास।

रैदास

(योगेन्द्रसिंह, प्रकाशक– लोकभारतीप्रकाशन, इलाहाबाद)

अविगतनाथनिरंजन ..... गावैरैदासा।
अबकैसेछूटैराम ..... ऐसीभक्तिकरेरैदासा।
ऊँचेमंदिरशाल ..... रामकहिंछूट्यो।

नानक

(नानकवाणी, अमृतसर)

मिलिजलु ..... जलहिंखटाना।
अबराखहुदास .....भाटकीलाज।
सावणआइयाहेसखी ..... बढ़ाईदेइ।

दादूदयाल

(संतकविदादूऔरउनकापंथ, डॉ. वासुदेवभामा, प्रकाशन–शोधप्रकाशन, नईदिल्ली)

नीकैरामकहत .....मारगसकरा
अजहूंननिकसे .....चंदचकोर
सजनीरजनीघटती .....

रज्जब

(संतकाव्य– डॉ. परशुरामचतुर्वेदी, किताबमहल, इलाहाबाद)
मनकीप्यास ..... रामभजनकरिभाई।
संतोमगनभया ..... धणीकाचेरा।
ऐसोगुरुसंसार ..... दर्शनपासा।

(4) जायसी

(जायसीग्रंथावली– आचार्यरामचन्द्रशुक्ल, नागरीप्रचारिणीसभा, वाराणसी)
नागमतीवियोगखण्ड – 15छंद (प्रारम्भके)

इकाई II

(1) सूरदास (सूरसागर – नागरी प्रचारिणी सभा, वाराणसी)

वात्सल्य

1- जसोदाह रिपालनैंझुलावै।
2- मैया, मैंतो चंद खिलौना लेहौं !
3- खेलन अब मेरी जात बलैया।
4- मैया बहुत बुरौ बलदाऊ।
5- खेलन दूरि जातकत प्यारे।

गोपी प्रेम

6- हरि. मुख. विधु मेरी अँखियाँ चकोरी।
7- चितवनरोकैहूँनरही।
8- बूझत स्याम कौन तूगोरी।
9- सजनी निरखिह रिकौ रूप।
10- अबतौ प्रगट भई जगजानी।

विरहवर्णन

11- मधु कर स्याम हमारे चोर।
12- बिनु गोपाल बैर निभईं कुंजै।
13- हमारे हरि हारिल की लकरी।
14- प्रीतिकरि का हूसुखनलह्यौ।
15- संदेस निम धुबन कूप भरे।
16- सखिइन नैननितैघन हारे।
17- निरगुन कौन दे सकौबासी?
18- ऊधौमन माने की बात।
19- संदेसोदेव की सौंक हियौ।
20- ऊधौमो हिब्रज बिसरत नाहीं।

(2)तुलसी (गीताप्रेस, गोरखपुर)

वाटिका प्रसंग – रामचरित मानस
विनय पत्रिका – उत्तरार्द्ध के प्रारम्भिक 5 पद
(3)मीराः मीरां पदावलीः शम्भूसिंह मनोहर के प्रारम्भिक 25 पद
(4)रसखान (रसखान ग्रंथावली, संपादक – देश राज सिंह भाटी, अशोक प्रकाशन, नई सड़क दिल्ली)

1- प्रान वही जुर हैं ..... भायो।
2- बैन वही उन को ..... सोहैरस खानी
3- मानुष हौं तो ..... कदं बकी डारन
4- यालकुटी ..... कुंजन ऊपर वारौं।

5- सेस गने समहेस ..... पैनाचन चावैं।
6- ब्रह्मा मैं ढूंढ्यो पुरानन ..... राधिका पायन।
7- कहा रस खानि ..... नन्द के कुमार को।
8- जोर सनार सनाबिलसै ..... कालिंदी – कूल कदं बकी डारन।

9- कंस के कोपकी फैलगई ..... कलंक तमालते की रतिडारसी।
10- द्रौपदी औगनिका ..... चाख नहारो सोराखन हारो

इकाई III

अलंकार – (अनुप्रास, यमक, श्लेष, उपमा, रूपक, उत्प्रेक्षा, अतिशयोक्ति, संदेह, भ्रन्तिमान, दृष्टान्त, उदाहरण दीपक, वक्रोक्ति, अर्थान्तरन्याय) छन्द – दोहा, चौपाई, सोरठाकाव्य गुण, काव्यदोष, शब्द–शक्ति पाठ्य पुस्तक में इन सभी कवियों के संकलित अंष से व्याख्याएँ एवं आलोचनात्मक प्रश्न पूछे जाएंगे।
सन्दर्भ पुस्तकें–

1- कबीर – हजारी प्रसाद द्विवेदी, हिन्दी ग्रन्थ रत्नाकर, मुम्बई
2- हिन्दी साहित्यक का निर्गुण सम्प्रदाय – डॉ पीताम्बरदत्त
3- जायसी के काव्य का सांस्कृतिक अध्ययन – डॉ. भीम सिंह मलिक
4- गोस्वामी तुलसीदास – आचार्य राम चन्द्र शुक्ल
5- सूर की काव्य कला – डॉ. मनमोहन गौतम
6- मीरां – सुधाकर पाण्डेय
7- अलंकार मीमांसा – डॉ. सुनीता गुप्ता
8- हिंदी व्याकरण – डॉ. राजेश्वर प्रसाद चतुर्वेदी
9- आलंकार मीमांसा – डॉ. सुनीता गुप्ता

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJHIN-201	हिंदी साहित्य का इतिहास	Major	04	04	10	20	70	40/100
AEC	सामान्य हिन्दी / अहिन्दी भाषी विद्यार्थियों के लिए	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
ISO	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MJHIN-201: हिंदी साहित्य का इतिहास

अधिकतम अंक : 100 **न्यूनतम अंक : 40**
श्रेय : 04 **समय : 2½ घंटे**

अध्ययन के परिणाम : पाठ्य क्रम पूर्ण होने के बाद विद्यार्थि योग्य होंगे:–

1. हिंदी साहित्य के इतिहास का सामान्य परिचय और आदिकाल एवं भक्तिकाल का विस्तृत अध्ययन करने में|
2. रीतिकालीन एवं आधुनिककालीन (भारतेंदु काल से छायावाद) परिस्थितियों, नामकरण, , कवियों का वर्गीकरण, काव्यगत विशेषताओं का अध्ययन करने में।
3. छायावादोत्तर काल के कवि, रचनाएँ व प्रवृतियों को समझनs esa एवं प्रतियोगी परीक्षाओं की तैयारी हेतु

सक्षम।

पाठ्य पुस्तकः हिन्दी भाषा एवं साहित्य का संक्षिप्त इतिहास – डॉ. राजेन्द्र शर्मा, प्रेम आधार रावत।

इकाई I

हिन्दी साहित्य के इतिहास का काल विभाजन, नामकरणख आदिकाल – पृष्ठभूमि, नामकरण, परिस्थितियाँ, रजनाएँ, रचनाकार, प्रवतियाँ ।

भक्तिकाल – पृष्ठभूमि नामकरण, परिस्थितियाँ भक्ति का उद्‌भव व विकास, निर्गुण काव्यधारा – संत एवं सूफीकाव्य, सगुण काव्यधारा – राम एवं कृष्ण काव्यधारा, प्रमुख कवि, काव्यगत विषेशताएँ।

इकाई II

रीतिकाल– नामकरण, पृष्ठभूमि, रीतिबद्ध, रीतिमुक्त, रीतिसिद्ध कवि, प्रवृतियाँ, काल विभाजन, कालगत, परिस्थितियाँ

आधुनिक काल – भारतेन्दु काल, द्विवेदी काल, छायावादी काल

इकाई III

छायावादोत्तर काल, प्रगतिवाद, प्रयोगवाद, नई कविता –रचनाएँ, रचनाकार, प्रवृतियाँ

सन्दर्भ पुस्तकें–

- हिन्दी साहित्य का इतिहास – आचार्यराम चन्द्र शुक्ल, काशीनागरी प्र. सभा, वाराणसी
- आधुनिक हिन्दी साहित्य का विकास – डॉ. श्री कृष्णलाल, हिन्दी परिषद वि. विद्यालय, प्रयाग
- हिन्दी साहित्य का उद्भव और विकास – हजारी प्रसाद द्विवेदी
- आधुनिक साहित्य की भूमिका – डॉ. लक्ष्मी सागर वार्ष्णेय हिन्दी परिषद, वि. विद्यालय प्रयाग
- हिन्दी साहित्य का आलोचनात्मक इतिहास – डॉ. रामकुमार वर्मा
- हिन्दी साहित्य का इतिहास – सम्पादक – डॉ. नगेन्द्र

DEPARTMENT OF HISTORY

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MJHIS-01	History of Ancient India	Major	04	04	10	20	70	40/100
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJHIS 101-HISTORY OF ANCIENT INDIA

Max Marks: 100 **Min Marks: 40**

Credits:04 **Duration: 2½Hrs**

Course outcomes:

On successful completion of the course, the student will be able to:

1. Trace the trajectory of human origin and the urbanization processes of the Vedic India
2. Critically appraise the various aspects of Mauryan and Gupta polity, society, economy, religion and art and architecture.
3. Construct a narrative of early Islamic rule as well as examine the salient features of the tripartite struggle and major South Indian dynasties.

Unit-I

Pre-Historic Age –Paleolithic, Mesolithic, Neolithic and Chalcolithic age.
Indus Valley Civilization–Origin, Geographical Extent, Town Planning, Economic, Social, Political and Religious life– Decline of the Civilization. Origin of the Aryans, Vedic-Polity, Society and Economy.
Iron Age with special reference to Megaliths and PGW
Age of Mahajanapadas

Unit-II

Mauryan Empire–Political Extent, Administration, Social and Economic life- Ashoka the Great Post Mauryan Period–Shungas, Shakas, Satavahans and Kushans Gupta Age–State and Administration, Social and Economic Life, Religion, Ar t, Architecture and Literature
Sangam Age Culture-Chera, Chola and Pandya

Unit–III

The Tripartite Struggle – Palas, Pratihars and Rashtrakutas.
Achievements of HarshVardhan
Arab Invasion: Mohammed Bin Qasim and capture of Sindh and Multan
Chalukyas-Military Policy, Pallavas-Temple Architecture and Cholas-Administration and Maritime Trade.

Reference Books

- Tripathi, R.S. (1992) History of Ancient India, Delhi, Motilal Banarasi Dass.
- Majumdar R.C. (1970, 1979, 1980) History and Culture of the Indian People, Vols,II,III,IV,V Mumbai, Bhartiya Vidya Bhawan Series,
- Kosambi, D.D. (1965) The Culture and Civilization of Ancient Indiain Historical Outline, Pantheon Books.
- Jha, D.N. (2001) Ancient Indiain Historical Outline, Manohar Publishers and Distributors.
- Singh, Upendra (2008) A History of Ancient and Medieval India: From stone age to12thcentury, Pearson Longman
- Thapar, Romila (2004) Early India: From the Origins to AD 1300, University of California Press.
- Shrimali, KM, (2013) Age of Iron and Religious Revolution, Tulika Publications
- Habib, Irfan (2016) Vedic Age, Tulika Publications
- Habib, Irfan (2017) Pre-History, Tulika Publications
- Shastri, N.A.K. (1958) A History of South India, Oxford University Press.
- Basham, A.L. (1971) The wonder that was India, Vol 1, Mumbai, Roopa
- Hiriyanna M. (1995) Essential of Indian Philosophy, Delhi, Motilal Banarsidas.
- Rizvi S.A.A, (1993) The Wonder that was India Vol.I & II, London, 1987, Delhi FoundationBooks.
- Tiwari, Kalika Prasad, (2001) Foundations of Indian Culture, Jaipur, Pointer Publishers

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MJHIS-201	Sultanate Period	Major	04	04	10	20	70	40/100
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
ISO	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MJHIS 201-SULTANATE PERIOD

Max Marks: 100 **Min Marks: 40**

Credits:04 **Duration: 2½ Hrs**

Course outcomes: On successful completion of the course, the student will be able to:

1. Critically appraise the contribution of the Turks, Persians and Afghans in the establishment of Sultanate rule in Medieval India.
2. Infer and examine the political, socio-economic and cultural changes introduced by the Islamic polity 12thcentury onwards.
3. Summarize and appreciate the role of regional powers in enrichening the polity, society, culture and economy of 14th-15th Century India.

Unit I

Sources to study Sultanate Period
Arrival of the Turks
The Ghaznavids and attacks of Mahmud
The Ghurid Dynasty and Muhammad Ghori-Defeat of Prithviraj Chauhan
The Delhi Sultanate: Establishment of Delhi Sultanate
Slave Dynasty/ Ibari/Mameluk Sultans (1206-1290): Qutubuddin Aibak, Shamsuddin Iltutmish, Razia & Balban

Unit II

Khalji Dynasty (1290-1320): Jalaluddin Khalji, Allauddin Khalji, Administration, Economic and Revenue reforms.
Mongol Invasion of India
Tughlaq Dynasty (1320–1414): Gayasuddin Tughlaq, Muhammad bin Tughlaq & Feroz Shah Tughlaq; Saiyyad Dynasty (1414-51); Lodi Dynasty (1451-1526)
Disintegration of Delhi Sultanate
Administration under Sultanate Period: Central Administration, Provincial government, Economy, Social system, Art and Architecture, Literature

Unit III

Deccan and Southern India: Vijayanagar and Bahmani Kingdom
The Vijayanagar Kingdom (1336–1672): Army and Military Organization, Social life, Economy, Cultural Contributions
Conflict between the Vijaynagar Kingdom and Bahmani Sultanate
Bahmani Administration
Western India: Gujarat, Malwa and Mewar
North India: Kashmir
Eastern India: Jaunpur, Bengal, Assam, and Orissa

Reference Books

- Chandra, Satish (2006) Medieval India Part I Delhi Sultanat, Har-AnandPub.
- Srivastava, A.L. (1950) The Sultanate of Delhi, Shivlal Agarwal, Agra
- Mehta, J.L. (1995) Advanced study in the History of Medieval India, Sterling Publishers.
- Nizami, K.A. (1983) On History and Historians of Medieval India, MunshiramManoharlal Publishers.
- Veluthat, Kesavan (2009) The Early Medieval in South India, Oxford University Press.
- Ashraf K M (2001) Life and Conditions of the People of Hindustan, Gyan Publishing House.

DEPARTMENT OF HOME SCIENCE

SEM-I

MJHSC 101: Fundamentals of Food Science and Nutrition

Max. Marks: 50 **Min. Marks: 20**

Credits: 03 **Duration: 3 Hrs**

Course Outcomes:

On successful completion of the course, the students will be able to:-

1. Develop the understanding of terms food, nutrition, methods of cooking, food preservation and adulteration of foods.
2. Analyze the composition, classification, functions and nutritional composition of Macro and Micro nutrients
3. Gain Scientific knowledge regarding Food Science of various food Products.

Unit – I

1.Definition –Food, Nutrition, Nutrients and Dietetics, RDA

2. Functions and Classification based on functions, nutrients and perishability,

3. Methods of Cooking and Preventing Nutrient Losses

- Dry, moist, frying and microwave cooking
- Advantages, disadvantages and the effect of various methods of cooking on nutrients
- Minimizing nutrient losses

4. Enhancing nutritional quality of foods-supplementation, germination, fermentation, fortification
5. Food preservation- Definition , principles and methods of food preservation
6. Food adulteration- Definition, types and household methods of testing adulterants in food.
7. Genetically modified and organic foods

Unit - II

8. A brief knowledge of the composition, classification, functions, deficiencies, sources and requirements of the following macronutrients and micronutrients:

- Proteins, Carbohydrates Fats, Water and Dietary fiber
- Fat Soluble vitamins – A,D,E and K
- Water Soluble vitamins – Vit. C, Thiamine, Riboflavin, Niacin, FolicAcid and vitB6 Vit. B12
- Minerals – Calcium, Phosphorous, Iron, Iodine.

Unit – III

9. Structure, composition, Products, nutritional contribution, selection and changes during cooking of the following food groups

- Cereals
- Pulses
- Fruits and vegetables
- Milk & milk products
- Meat, eggs, poultry and fish

- Fats and Oils, nuts and oilseeds
- Spices and condiments

References:

- M. Swaminathan: Principles of nutrition and dietetics
- I.C.M.R.: Nutritive value of Indian Foods
- I.C.M.R.: Nutritive requirements for Indians
- C.H. Robinson: Normal and Therapeutic nutrition, Hindi
- Narayan Sudha: Aahar Vigyan Research Publication Jaipur

MJHSC 102: Basic Food Preparation

Max. Marks: 25 **Min. Marks: 10**

Credits: 01 **Duration: 3 Hrs**

Course Outcomes:

On successful completion of the course, the students will be able to: -

1. Develop an understanding of the basic cooking terms, Weights and measures, equipment's, Rules and regulation of Working in the Laboratory.
2. Develop knowledge of the basic recipes prepared from cereal, pulses and vegetables.
3. Prepare various recipes prepared from different methods of cooking
4. Introduction – Foods Lab. Basic cooking terms, Weights and measures,equipment, Rules and regulation of Working in the Laboratory
5. Beverages
6. Soups
7. Desserts
8. Snacks
9. Salads
10. Bakery items
11. Basic preparations from cereals, pulses and vegetables
12. Preparing recipes using different methods of cooking – baking, roasting, boiling, steaming. Simmering, deep frying, shallow frying.

Note: Importance to be given to methods of preparation, taste, attractive service, portion size &time plan.

MARKS DISTRIBUTION:

Time: 3 hours **Max. Marks: 25** **Min. Marks: 10**

1. Internal.	05
2. Selection and planning of recipes	05
3. Preparation of two dishes	10
4. Table management, service	05
TOTAL -	**25**

SEM-II

MJHSC 201: Introduction to Textiles, Designing and Garment Construction

Max. Marks : 50 **Min Marks: 10**

Credits:03 **Duration: 3 Hr**

Course Outcomes:

On successful completion of the course, the student will be able to:-

1. Develop an understanding to IdentifyvariousTextiles fibers, yarns and theirmanufacturingprocess.
2. Apply the knowledge of various Weaving, finishing, dyeing and Printing techniques.
3. Explain the concept of Fashion Designing and garment production.

UNIT I

1. Textile Fibres:

(a) Definition, Classification and General properties of Textile Fibres.
(b) Manufacturing, properties, care, storage and their importance to consumer of -
- Natural Fibers: Cotton, Linen, Silk,Wool.
- Manmade Fibers: Rayon, Nylon, Polyester.

2. Yarn construction:

(a) Methods of spinning – Mechanical and Chemical

(b) Types of yarns-Simple, Complex and Textured

3. Fabric Construction:

(a) Knitting, Felting, Braiding
(b) Weaving – Meaning, Process, Structure of loom
(c) Types of Weaves - Plain, Twill, Satin and Sateen, Pile and Jacquard.
(d) Warp,Weft, Selvedge, Balance and count of cloth

4. Finishing –

(a) Finishing – Meaning, Objective and importance to consumers
(b) Classification of textile finishes: Mechanical and Chemical: Temporary and Permanent

UNIT II

5. Dyeing and Printing

(a) Types of dyes, Dyeing process, Stages of dyeing
(b) Styles of printing – Direct, Resist and Discharge
(c) Methods of Printing - Block, Screen, Roller, Resist, Discharge and Stencil

6. Fashion Designing – Concept and Objectives

(a) Design: Meaning and types
(b) Classification of Design: Structural Design and Applied Design
(c) Types of motifs: Geometrical, Stylized, Figurative, Abstract, Folk, Tribal

7. Principles of Art and their application in Apparel designing - Balance, Proportion, Harmony, Rhythm, Emphasis

8. Elements of art and their application in Apparel designing - Line, Texture, Form, Pattern, Colorand Space

UNIT III

9. Introduction to Drafting and Stitching
   (a) Definitions of Fabric Grain, Bias, Selvedge, Seam Allowance, Facing and Ease Stiching
   (b) Importance of taking body measurements
   (c) Drafting as a method of pattern making
10. Preparatory steps for Garment Construction
   (a) Preshrinking, Straightening and Truing
   (b) Pinning, Marking and Cutting; Additional seam techniques: clipping, notching, grading, trimming, easing, under stitching, stay stitching, trimming a corner.
11. Layouts:
   (a) Layouts for patterns- General Guidelines, Repeat, Basic Layouts- Lengthwise (Vertical), Partial Lengthwise, Crosswise (Horizontal), Double Fold, Open, Combination Fold, Twill
   (b) Layouts for fabrics- Unidirectional, bold and large prints, plaids, stripes and checks, various widths of fabrics.
12. Study of garment components: Classification and application of sleeves, cuffs, collars, necklines, plackets, pockets, yokes, trims and accessories

Reference Books:

- Dhantyagi, Sushila: Fundamentals of textiles and their care Orient Longmans, Bombay.
- Daulkar. Durga: A guide to household textile and laundry work. Atma Ram & Sons, New Delhi.
- Isabel B. Wingtage: Textile fibres and their selection Prentice Hall Inc. Englewood, Chiff, N. Jersey
- Hess, Katherine: Textile fibres and their uses – Oxford & IBH Publishing House, New Delhi.
- Mathews, Mary: Practical clothing Construction – Part I Cosmic Press,
- Corbman B.P: Textile Fibre, McGraw hill Co. New York.

MJHSC 202 : Fashion Designing and Clothing Construction

Max. Marks : 25 **Min. Marks: 20**

Credits:01 **Duration: 3 Hrs**

Course Outcomes:

On successful completion of the course,the studentwill be able to:-

1. Develop skills in apparel designing.
2. Enhance professional skills in fashion designing.
3. Create the basic knowledge of traditional embroideries of India.

Section A

1. a – Collecting samples of various types of weaves.

b – Dyeing and Printing (Articles-atleast 1)

i. Tie & Dye

ii. Block Printing

Section B – Needlecraft and clothingConstruction

2. a - Equipment used for stitching and measurement.
   b -Taking ofbody Measurements

   c – Importance of drafting and making paper pattern

   d – Calculation of material

   e – Preparation of fabric before cutting

3. Preparations of Samples -Basic seams and Fastener
4. Drafting, Cutting and stitching of:

i. Children – basic bodice block – adaptation to A Line frock

ii. Ladies - Saree Petticoat

DEPARTMENT OF PHYSICAL EDUCATION

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MNPED-101	Foundation and History of Physical Education	Minor		3	5	20	50	30/75
MNPED-102	Practical	Minor		01	-	-	25	10/25
AEC	General English	AEC		02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MNPED-101 : Foundation and History of Physical Education

Max. Marks: 75 **Min. Marks: 30**

Credits: 3 **Duration: 2 ½ Hrs.**

Course outcomes: On successful completion of the course, the students will be able to:

- Identify the concept of Physical Education and sports science.
- Analyze the historical development and evaluate the current landscape of physical education and sports in India.
- Compare and analyze major international sports events and describe the roles of their organizing committees.

Unit - I

- Physical Education: - meaning, definitions, aims and objectives of physical education.
- Physical Education programme: pre-service programme, intramural programme, extramural programme, fitness and recreational programme.
- Importance of physical education.
- Relationship of physical education with education.
- Physical Education an art and science.

Unit – II

- Division of ancient Period:
  - Indus Valley Civilization Period. (3250 BC – 2500 BC)
  - Vedic Period (2500 BC – 600 BC)
  - Hindu Period (600 BC – 1000AD)
  - Medieval Period (1000 AD – 1757 AD)
  - British Period (Before 1947)
  - Physical Education in India (After 1947)
- National policies on education with specific reference to 1986: meaning and objectives.
- Sports Authority of India (S.A.I.):Meaning, objectives and functions.
- Indian Olympic Association (I.O.A.): introduction, objectives and committees.

Unit - III

Start of Games, Objectives, Motto, Flag, Opening & Closing Ceremonies, Committees and their Function of the following games:

- Ancient and Modern Olympic Games
- Common wealth
- Asian Games
- S.A.F. Games
- Indian National Games

Reference Books:

- Bucher C.A. (1983) "Foundation of Physical Education and Sport" the C.V. Mosky Co. St. Louis Toroato- London.
- Kamlesh & Sangral, (2000) "Principles & History of Physical Education," Prakash Brothers, Ludhiana.
- Singh Ajmer et.al., (2000) "Olympic Movement" Kalyani Publishers, Ludhiana.

MNPED-102 : Practical

Max. Marks: 25 **Min. Marks: 10**

Credits: 1 **Duration: 4 Hrs.**

Course outcomes:

On successful completion of the course, the students will be able to:

- Demonstrate the basic skills and techniques of the racket sports listed in the syllabus.
- Administer and evaluate the Canadian Physical Fitness Test (Modified) to assess physical fitness levels.
- Perform and evaluate throwing events in Track and Field as specified in the syllabus.

Topics for practical:

- Opt any one Racket Sport
  a. Table Tennis
  b. Badminton
  c. Tennis
- Canadian Physical Fitness Test (Modified)
- Track and Field Throwing event: Shot Put / Javelin / Discus/ Hammer

Reference Books:

- Lumpkin, A. (2007) Introduction to Physical Education, Exercise Science and Sports Studies, McGraw Hill, New York, U.S.A.
- Fahey, T.D., M.P. Insel and W.T. Rath (2006), Fit & Well: Core Concepts and Labs in Physical Fitness, McGraw Hill, New York.
- Hoeger, W W K and S.A. Hoeger (2004). Principles and Labs for Fitness and Wellness, Thomson Wadsworth, California, USA.

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MNPED-201	Test, Measurement and Evaluation in Physical Education	Minor		3	5	20	50	30/75
MNPED-202	Practical	Minor		1	-	-	25	10/25
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Program	ISO	01	01	-	-	25	10/25

MNPED-201: Test, Measurement and Evaluation in Physical Education

Max. Marks: 75 **Min. Marks: 30**

Credits: 3 **Duration: 2 ½ Hrs.**

Course outcomes:

On successful completion of the course, the students will be able to:

- Identify the purpose of test, measurement and evaluation in physical education.
- Classify the key criteria for selecting and administering tests.
- Administer and interpret various physical, motor, and skill fitness tests.

Unit - I

- Meaning of test, measurement and evaluation.
- Need and importance of test, measurement and evaluation in Physical education.
- Principles of measurement and evaluation.

Unit II

- Criteria of test selection: scientific authenticity (objectivity, reliability, validity and norms) an administrative feasibility and educational application.
- Administration of test: advance preparation, duties during and after testing.
- Types of evaluation: formative, summative, objective and subjective.

Unit III

- Physical fitness test: AAHPER youth fitness test for boys and girls, Kraus Weber test (Minimum muscle strength), Cooper's 12/9 min. run-walk test.
- Motor fitness test: J.C.R. test, Indiana motor fitness test and Barrow motor ability test.
- Skill Test: Brady volleyball test, Johnson basketball ability test, Harbans Singh field hockey test, Lockhart-McPherson badminton test

Reference Books:

- **Kansal, D.K. (1996).** Test and measurement in sports and physical education. New Delhi: D.V.S. Publications.
- **Kamlesh M.L. (2017).** Methods in physical education, New Delhi: Friends Publications.
- **Mathews, D.K., (1973).** Measurement in physical education, Philadelphia: W.B. Sounders Company.
- **Karad P.L. (2019).** Test, measurement and evaluation physical education, New Delhi: Khel Sahitya Kendra
- **Singh, Hardyal, (1991).**Science of Sports Training, New Delhi: DVS Publications

MNPED-202: Practical

Max. Marks:25 **Min. Marks: 10**

Credits: 1 **Duration: 4 Hrs.**

Course outcomes:

On successful completion of the course, the students will be able to:

- Demonstrate the techniques and principles of circuit training for improving physical fitness.
- Administer and interpret sports skill tests for Basketball, Volleyball, Field Hockey, and Badminton.
- Understand and demonstrate the basic skills and techniques in combat sports.

Topics for practical

1. Physical Fitness: Circuit Training
2. Sports Skill Test:
   Basketball: Johnson Test

   Volleyball: Brady Volleyball Test

   Field Hockey: Harbans Singh Test

   Badminton: Lockhart-McPherson test
3. Combat Sports: Wrestling / Judo/ Karate/ Taekwondo

Reference Books:

- **Karad P.L. (2019).** Test, measurement and evaluation physical education, New Delhi: Khel Sahitya Kendra
- **Singh, Hardyal, (1991).**Science of Sports Training, New Delhi: DVS Publications

DEPARTMENT OF POLITICAL SCIENCE

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MJPOL-101	Political Theory	Major	04	04	10	20	70	40/100
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJPOL-101: Political Theory

Max. Marks: 100 **Min. Marks: 40**
Credits: 04 **Duration: 2½ Hrs.**

Course outcomes: After successful completion of the paper a student will be able to:

1. Discover various dimensions of Political theory & identify different forms of Government and distinguish between them.
2. Prioritize students' socialization, participation and decision-making skills through conceptual awareness of Politico-Ethical principles.
3. Analyze and compare various theories of State which will give students a cutting edge in competitive exams.

UNIT I

- Meaning, Nature, and Significance of Political Theory
- Normative Approach - Features, Nature, Scope, Approaches, Critical Evaluation
  EmpiricalApproach - Features, Nature, Scope, Approaches
- Behaviouralism– Development of the Movement, Features, Critical Evaluation
- Post Behaviouralism – Causes for its Emergence, Features and Evaluation

UNIT II

STATE –

- Components
- State and Government
- State and Society
- Theories of Origin
- Nature
- Function

THEORIES OF STATE

- Idealist
- Liberal
- Marxist
- Anarchist

TRADITIONAL CONCEPTS:

- SOVEREIGNTY – Meaning, Types and Aspects, Critical Evaluation
- RIGHTS – Meaning, Nature, Classification, Rights and Duties
- LIBERTY - Meaning, Types, Safeguards
- EQUALITY - Meaning, Types, Relationship between Equality and Liberty
- THEORIES OF REPRESENTATION – Plural and Weighted Voting, Universal Adult Suffrage, Constituencies, Methods of Minority Representation

UNIT III

MODERN CONCEPTS:

- POWER – Meaning, Characteristics, Sources, Types, Methods of exercising Power
- AUTHORITY- Meaning, Sources, Characteristics, Types, Relationship between Authority and Power
- LEGITIMACY – Meaning, Types, Crisis of Legitimacy
- POLITICAL DEVELOPMENT (Lucian Pye)
- POLITICAL CULTURE- (Almond and Powell)

ORGANIZATION AND FUNCTIONS OF:

- THE LEGISLATURE – Meaning, Functions, Organisation, Committee System, Direct Legislation, Delegated Legislation, Decline of Legislature
- THE EXECUTIVE - Meaning, Types of Executives, Functions
- THE JUDICIARY - Meaning, Functions, Independence of Judiciary, Judicial Review

Reference Books-

1. A. Ashirvadam: Principles of Political Science
2. D. Gernimo: Beyond Ideology: The Revival of Political Theory
3. Robert Dahl: Political Theory and Modern State
4. J. C. Johari: Principles of Political Science
5. R. C. Agarwal: Political Theory
6. Sir. E. Barker: Principles of Social and Political Theory
7. R. G. Gettle: Introduction to Political Science
8. L. S. Rathore: In Defence of Political Theory
9. A. C. Kapoor: Principles of Political Science

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MJPOL-201	Indian Political Thought	Major	04	04	10	20	70	40/100
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Programme	SOR	01	01	-	-	25	10/25

MJPOL 201- Indian Political Thought

Max. Marks: **Min. Marks: 40**
Credits: 04 **Duration: 2½ Hrs.**

Course outcomes: After successful completion of the paper a student will be able to:

1. Examine the political and social ideas of Manu and Kautilya, Raja Ram Mohan Roy and Dayanand Saraswati
2. Assess the social and political views of G. K. Gokhale and Tilak
3. This paper instills democratic awareness and social responsibility as well as opens avenues for a career in teaching and social work.

Unit I

Ancient Political Thought-

- Manu- Social and Political Ideas.
- Kautilya-Saptang Theory and Mandal Theory

Social Reformist-

- Dayanand Saraswati-Socio-political Ideas and Arya Samaj
- Raja Ram Mohan Roy-Socio-political Ideas and Brahmo Samaj

Unit II

- G.K Gokhale- Social, Political and Economic Ideas
- Tilak- Social and Political Ideas

M.K.Gandhi

- Satyagraha
- Ideal State
- Political, Social and Economic Ideas
- Truth and Non-Violence
- Religion and God
- Gandhism and Communism

Unit III

Jawaharlal Nehru-

- Ideas on History and Communism
- Political and Economic Ideas
- Secularism
- Democratic Socialism

M.N.Roy-

- New Humanism

Jai Prakash Narayan

- Political and Economic Ideas
- Sarvodaya

B.R. Ambedkar

- Social and Political Ideas

Reference Books:

1. C.Bhraill: Social and Political Ideas of B.R.Ambedkar
2. Purshottam Nagar: Indian Modern Social and Political Thoughts
3. M.A.Buch: Rise and Growth of Indian Liberalism
4. B.R.Purohit: Development of Political Thought
5. V.P.Verma: Indian Political Thought (Vol II)
6. V.R.Mehta: Foundations of Political Thought
7. V.D.Mahajan: Recent Political Thought
8. A.R.Appodarai: Indian Political Thinking
9. V.P.Verma: Indian Political Thought (Vol I and Vol II)
10. Vishnoo Bhagwan: Indian Political Thinkers
11. J.P.Suda: Main Currents of Indian Political Thought
12. V.R.Mehta: Foundations of Indian Political Thought
13. Virendra Grover: Bal Gandhadhar Tilak

DEPARTMENT OF PSYCHOLOGY

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MJPSY-101	Basic Psychological Processes-I	Major	03	03	5	20	50	30/75
MJPSY-102	Practical – Basic Psychological Tests and Experiments- I	Major	01	01	-	-	25	10/25
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJPSY-101:Basic Psychological Processes-I

Max. Marks: 75 **Min. Marks: 30**
No. of Credits: 03 **Duration:2½Hrs**

Course Outcome: On successful completion of the course, the student will be able to:-

1. Examine the major perspectives of Psychology.
2. Justify theories of Motivation and Emotion.
3. Assess the concepts of Sensory and Perceptual processes of human beings.

Unit – I

Introduction to Psychology: Definition, Nature and Scope of Psychology, Goals of Psychology.
Historical Perspectives in Psychology: Structuralism, Functionalism, Gestalt and Psychoanalysis. (Brief Introduction)
Modern Perspectives in Psychology: Behavioural, Humanistic, Cognitive, Evolutionary, Socio-cultural and Multi-cultural. (Brief Introduction)
Methods of Psychology: Experiment, Observation, Interview, Questionnaire, Case Study, Survey and Meta-analysis. (Meaning, Types, Advantages and Disadvantages)

Unit - II

Motivation and Emotion:
Motivation: Indicators of Motivated Behaviour. Nature and Classification of Motives – Biogenic and Sociogenic. Theories of Motivation: Drive Theory, Incentive Theory, Optimal Level Theory, Goal setting Theory and Maslow's Need Hierarchy Theory.
Emotion: Nature, Development, Expression and Control of Emotions. Theories of Emotion: Cannon-Bard Theory, James-LangeTheory and Schachter-SingerTheory.

Unit – III

Sensory, Attention and Perceptual Processes:
Attention: Definition, Characteristics and Determinants of Attention. Selective Attention and Sustained Attention.

Perception: Definition and Determinants of Perception. Perceptual constancies (Size, Shape and Brightness), Organizing Principles of Perception, Form and Depth Perception.
Thinking: Nature and Types of Thinking.
Problem Solving: Meaning and Methods of Problem Solving.

Reference Books:

1. Baron, R. A. (2001). Introduction to Psychology. New Delhi: Pearson Education Pvt. Ltd.
2. Morgan, C. T., King, R. A., Weisz, J. R. and Schopler, J. (1986). Introduction to Psychology. McGraw-Hill Book Co.

MJPSY-102:Practical – Basic Psychological Tests and Experiments- I

Max. Marks: 25 **Min. Marks: 10**
Credits: 01 **Duration: 4Hrs**

Course Outcome: On successful completion of the course, the student will be able to:-

1. Understand the aspects related to the administration of Psychological Tests and conduction of Psychological Experiments.
2. Examine the importance of Standardization of Psychological Tests and Experiments
3. Explain and analyze the results derived from Psychological Tests and Experiments.

(Any three of the following)

- Anxiety Test
- Level of Aspiration
- Parent Child Relationship Scale
- Emotional Intelligence Test
- Any two activities/mini project/assignment based on the following methods of Psychology:
- Observation
- Interview
- Survey
- Questionnaire
- Experiment

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MJPSY-201	Basic Psychological Processes – II	Major	03	03	5	20	50	30/75
MJPSY-202	Practical Basic Psychological Tests and Experiments- II	Major	01	01	-	-	25	10/25
MDC-202	Anger and Stress Management	MDC	03	03	5	20	50	30/75
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Programme	SOR	01	01	-	-	25	10/25

MJPSY- 201 Basic Psychological Processes - II

Max. Marks: 75 **Min. Marks: 30**
No. of Credits - 03 **Duration: 2½Hrs**

Course Outcome: On successful completion of the course, the student will be able to:-

1. Illustrate the effect of neural mechanisms on Human behaviour.
2. Explain Psychological bases of Learning, Memory and Forgetting.
3. Evaluate aspects of Personality and Intelligence.

Unit I

Biological Basis of Behaviour: Genes and Behaviour. (Introduction)
Nervous System – Neuron: Structure, Function, Synapse, Neurotransmitters.
The Central Nervous System: The Brain and the Spinal Cord. (Structure and Functions), Hemispheric Specialization.
Peripheral Nervous System: Autonomous Nervous System, Somatic Nervous System (Functions).
Endocrine glands: Hormones and their effects on behaviour.

Unit II

Learning, Memory and Forgetting:
Learning: Definition. ClassicalConditioning: Experiment and Basic Processes – Acquisition, Extinction, Spontaneous Recovery, Reconditioning, Stimulus Generalization, Stimulus Discrimination. Types of Conditioning – Simultaneous, Delayed, Trace and Backward.
Operant Conditioning: Experiment and Basic Processes – Reinforcement, Shaping, Chaining and Schedules of Reinforcement.
Trial and Error theory of Learning, Laws of learning, Cognitive learning and Observational learning.
Memory: Definition and Process (Encoding, Storage and Retrieval).
Factors affecting Encoding and Retrieval. Theories – Information Processing Model, Depth of Processing model, Encoding Specificity Model, Mnemonics.
Short term and Long term memory: Nature, Characteristics and Types.
Forgetting: Definition, Theories: Decay, Interference and Retrieval Failure theory.

Unit III

Intelligence and Personality:

Intelligence: Definition, Determinants and Measurement.

Theories of Intelligence: Spearman, Thurstone, Guilford, Robert Sternberg, Gardner and PASS Model of Intelligence.

Personality: Definition, Biological, Psychological and Socio-cultural Determinants.

Theories of Personality: Trait theories - Allport, Cattell, Eysenck and Robert McCrae & Paul Costa's theory, Basic Type theories, Freud's Psycho-analytical Theory.

Assessment of Personality: Personality inventories and Projective techniques.

Reference Books:

1. Baron, R. A. (2001). Introduction to Psychology. New Delhi: Pearson Education Pvt. Ltd.
2. Morgan, C. T., King, R. A., Weisz, J. R. and Schopler, J. (1986). Introduction to Psychology. McGraw-Hill Book Co.

MJPSY-202:Practical-Basic Psychological Tests and Experiments- II

Max. Marks: 25 **Min. Marks: 10**

Credit: 01 **Duration: 4Hrs**

Course Outcome: On successful completion of the course, the student will be able to:-

1. Understand the aspects related to the administration of psychological tests and conduction of psychological experiments.
2. Examine the importance of standardization of Psychological Tests and Experiments
3. Explain and analyze the results derived from Psychological tests and experiments.

(Any three of the following)

- Learning Curve
- Forgetting Curve
- Serial Positioning Effect
- Projective Personality Test
- Objective Personality Test
- Intelligence Test

DEPARTMENT OF SOCIOLOGY

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MJSOC-101	Introductory Sociology	Major	04	04	10	20	70	40/100
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJSOC – 101: Introductory Sociology

Max. Marks: 100 **Min. Marks: 40**
Credits: 04 **Duration: 2½Hrs**

Course outcomes: On successful completion of the course, the student will be able to:

1. Identify and understand the meaning, nature, scope and trace history of Sociology
2. Examine the process of Socialization and comprehend basic concepts like culture, status, role etc.
3. Relate the structure and stratification system of society and explain social change and social control.

Unit I

The Meaning, Definition of Sociology.
Nature and Scope of Sociology
Origin of Sociology
Perspectives of Sociology

Unit II

Basic Concepts:
Society, Community, Institutions, Associations, Groups
Culture
Status and Role
Socialization – Meaning, Stages, Agencies, Theories (Cooley, Mead and Freud)

Unit III

Social Control – Meaning, Characteristics, Types and Agencies
Social Stratification -Meaning, Forms and Theories of Stratification.

Social Processes – Meaning, Characteristics and Types-Assimilation, Co-operation, Competition, Conflict
Social Change: Meaning, Pattern, Factors and Theories

Reference Books:

- Merton, R.1968, Social theory and social structure
- Aron, R.1965, Main currents in sociological thought,vol1.London:Penguin books
- Linton, R.1936.The study of man
- Bierstedt, R.1974. The social order New York: McGraw Hill
- Tumin, Melvin M. Social Stratification: The Forms and functions of in equality, Prentice Hall

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/Max
MJSOC-201	Fundamentals of Social Research	Major	04	04	10	20	70	40/100
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
ISO	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MJSOC- 201 Fundamentals of Social Research

Max. Marks: 100 **Min. Marks: 40**
Credits: 04 **Duration: 2½ Hrs**

Course outcomes:On successful completion of the course, the student will be able to:

1. Develop the habit of scrutinizing social assumptions and beliefs in the light of scientific evidence, differentiate between value neutrality and subjectivity
2. Understand nature of social problem, explain as well as construct hypothesis, discuss and infer to the scientific methods involved in social research
3. Organize and plan diagrammatic and graphical representation of data and make use of statistics.

UNIT I

Philosophical Issues in social science research, Positivism and Post Positivist Approaches, Reason and Science; Inductive and Deductive Logic; Value and Value-neutrality in Social Sciences; Ethics in Social Sciences; Concept, Variable, Measurement Scales and operationalisation. Steps in research, Research design, meaning and types.

UNIT II

Hypothesis, Theory, Fact, Identification of Research Problem, Empirical Generalizations, Sampling and Sampling Procedure, Tools for qualitative research- Observation, Interview, case study, ethnography, Quantitative: Survey, questionnaire, schedule, structured interview

UNIT III

Data Analysis: Data Processing, Classification, Tabulation and Analysis, Diagrammatic and Graphical Representation of Data, Use of Statistics in Social Research, Central Tendencies – Mean, Median, Mode, report writing

Reference Books:

- Blalock H.M.: Social Statistics 1987, Mc Graw Hill Education, United Kingdom.
- Yadava S & Yadav K.N.: Statistical analysis for Social Sciences, 1995, Manak publications Delhi.
- Pauline V. Young: Scientific Social Survey and Research, 1911, Prentice Hall, Delhi.
- B.N. Ghosh: Social Research and Scientific Methods, 2015 Sterling publications Pvt Ltd Delhi.
- Ahuja Ram: Research Methods 2002, Rawat Publications Jaipur.
- Kothari CR: Research methodology 2009 New Age International (P) ltd, New Delhi

VOCATIONAL COMPUTER APPLICATION

Course Structure in Semester – I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MNVCA-101	Computer Fundamentals and PC Software	Minor	03	03	5	20	50	30/75
MNVCA-102	Practical	Minor	01	01	-	-	25	10/25
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MNVCA – 101: Computer Fundamentals and PC Software

Max. Marks: 50 **Min. Marks: 20**
Credits: 03 **Duration: 2½ hrs**

Learning Outcome: On successful completion of the course, the students will be able to

1. Describe computer systems, their types and the uses of various input devices
2. Categorize different output devices on the basis of operation and study different tools of Microsoft Word by hands on practice
3. Develop charts and validation on the data Apply various functions on the excel sheet and Design effective presentation by implementing different formatting styles.

Unit - I

Introduction to Computer: Definition, Diagram, Characteristics, Classification of Computers: Analog Computers, Digital Computers, Hybrid Computers, Classifications of computer on the basis of size and speed, different type of computers, Indian Super Computer, Applications of Computers

Input Devices: keyboard, mouse, touch pad, touch screens, data scanning devices, optical recognition systems: bar code readers, optical mark readers, Optical character reader. Digital camera

Unit – II

Output Devices: Hard copy devices: Printer (impact printers), dot matrix printer, line printer, (non-impact printers), inkjet, laser printer, 3D printer, barcode printers. Soft copy devices: (Computer Display) CRT, Flat Panel Display: LCD, plasma display panel.

Introduction to memory: classifications, volatile memory, non-volatile memory

Software: System software, application software, programming software.

MS-Word: Introduction to MS-Word, Features, Application Areas and its uses, types of views, Creating & Saving: New Document, copy, cut, paste, paste special, clipboard, undo, redo, Fonts, Paragraphs: Indentation and Spacing, Columns & Breaks, Styles, Find, Replace & Goto. Inserting Tables, Picture, ClipArt, Shapes, Smart Art and Charts, Symbols and Equations, Hyperlink, Bookmark. Header & Footer. DropCap, Textbox, WordArt, Date and Time. Table of contents, Footnotes and Endnotes, Page background. Mail merge, Macros, Auto correct and Auto Text. Comments, Page Setup, Size, Margins, Gutter, Orientation.

UNIT-III

MS-Excel: MS-Excel: Introduction, Features, Application Areas and its uses, views and its types, formatting and its types. **Charts**: Line, bar, column, area, pie. Pivot Tables, Data management (Sort, filters, Validation, consolidation, Text to column), auditing and tracing.

Functions and Formulas -Text: char, concatenate exact, find, left, right, mid, lower, upper, proper, search, substitute, trim. **Logical:** and, or, not **Math and trig:** abs, int, even, odd, fact, mod, pi, power, product, round, roman, sign, sqrt, trim. **Statistical:** Average, count. Protecting sheet and workbook.

MS-PowerPoint: Introduction to PowerPoint, Features, Application Areas and its uses, Creating Presentations through Blank Presentations, Templates, Slide Master, Views of PowerPoint, Formatting of Presentations : Inserting Graphics and Animations, Formatting & Customizing Presentations : Slide Transactions, Custom Animation, Inserting sounds. Set up and Custom Slide Show , Handouts.

Reference Books:

- Pradeep K. Sinha, Priti Sinha, "Computer Fundamentals". BPB Publications.
- Rajaraman, V., "Fundamental of Computers". Prentice Hall India, New Delhi.
- Fundamentals Of Information Technology, 2E , Alexis Leon & Mathews Leon,Vikas Publishing
- Microsoft Office 2007 – Joyce Cox & Joan Preppernau – PHI Publication
- Working in Microsoft Office- Ron Mans Field, TMH.

Course Structure in Semester – II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MNVCA-201	Fundamental of 'C' Programming	Minor	03	03	5	20	50	30/75
MNVCA-202	Practical	Minor	01	01	-	-	25	10/25
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
ISO	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MNVCA – 201: Fundamental of 'C' Programming

Max. Marks: 50 **Min. Marks: 20**
Credits: 03 **Duration: 2 ½ hrs.**

Learning Outcome: On successful completion of the course, the students will be able to

1. Understand the fundamental concepts of the C programming language, proficient in using input/output instructions, operators and looping
2. Demonstrate proficiency in working with arrays in C and understanding of function mechanisms
3. Gain proficiency in working with pointers and arrays, structures and union.

Unit - I

'C' Language: Character Set, Keywords, Constants, Variables, Data Types, Type Conversion, Instruction & its types: **Input Output Instructions**, Operators & Expressions: Arithmetic, Relational, Logical, Conditional, Arithmetic Instructions.

Control Instructions: Decision Control (if, if-else, if else ladder, nested if, switch case), Loop Control (while, for, do-while, Nesting Loops), Jump statements (break, continue, goto)

Unit – II

Arrays: - Concept of Arrays, one dimensional array & Two dimensional array, Storage strategy, Array Initialization, Operations on Arrays (traversing, addition, subtraction, transpose), Search - linear & binary. Sorting - bubble sort & selection sort.

Functions: - Declaration, calling (Call by value, Call by reference) & Definition of functions, Recursion, Storage Class (auto, static, register, extern), Scope rules (Local, Global).

UNIT-III

Pointers: - Pointers and addresses, Pointers as Function arguments, Pointers and Arrays, Address Arithmetic. Character Pointers, String handling and String functions (strlen, strcat, strcmp, strcmpi, strrev, strcpy).

Structure and Union: Basics, Structures and Functions, Arrays of Structures, structure pointer variables. Union definition and its use.

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Reference Books:

- Let Us 'C' -Yashavant PKanetkar, BPB Publications
- Programming in Ansi 'C' – Balaguruswami – TMH.
- C' Programmiung Language – Kernighan & Ritchie - PHI
- C' How to Program – Dietel & Dietel – PHI
- C' Programmiung - Dr. Neeraj Bhargava & Dr. Ritu Bhargava, AlkaPublicationas

SOPHIA GIRLS'COLLEGE

(AUTONOMOUS)

AJMER

Scheme of Examination
And
SYLLABUS
BATCH 2023

FOR

Four-Year Under Graduate Honours Program
(Mathematics as Major/Minor)
Under
Choice Based Credit System
with
New Education Policy
Semester – I & II

BACHELOR OF SCIENCE

Eligibility for admission in First Year of B.Sc. Mathematics is 10+2 examination of any Board with at least 50% marks. With regard to admission on reserved category seats government rules will be applicable.

SCHEME OF EXAMINATION

The number of the paper and the maximum marks for each paper together, with the minimum marks required to pass are shown against each subject separately. It will be necessary for a candidate to pass in the theory as well as the practical part of a subject/paper, wherever prescribed, separately.

Classification of successful candidates shall be as follows:

First Division 60%	of the aggregate marks prescribed in Semesters I to VI taken together
Second Division 50%	

All the rest shall be declared to have passed the examination.

- For passing a candidate shall have to secure at least 40% marks in each course (Theory and Practical separately).
- No division shall be awarded in Semesters I to V.
- Whenever a candidate appears for a due paper examination, she will do so according to the syllabus in force.
- A candidate not appearing in any examination/absent in any paper of term end examination shall be considered as having DUE in those papers.

End Semester Examination Pattern

Maximum Marks: 70 **Duration: 2½ Hrs**

Section A **10 × 1 = 10 Marks**

Contains 10 Questions of 1 mark each and all are compulsory. Three questions from each unit and one extra question from any one unit

Section B **5+5+5 = 15 Marks**

Contains 3 questions with internal choice (Two questions from each unit). A student has to attempt 3 questions, choosing at least one question from each unit.

Section C **15 × 3 = 45 Marks**

Contains 3 questions with internal choice (Two questions from each unit). Each Question carries 15 marks. A Student has to attempt 3 questions, choosing at least one question from each unit.

FYUP CREDIT SCHEME 2023

STRUCTURE OF 3 YEAR UNDERGRADUATE PROGRAM BASED ON NEP (NON- PRACTICAL SUBJECTS)

SEM	Honours With Research	Multi-Disciplinary Course	Ability Enhancement Course (AEC)	Skill Enhancement Course	Value Added Course	Summer Internship/ Social Outreach	Research Project OR Dissertation	Total	
	Required Credit for Major Course (4)	Total Required Credit (3) (6)	Total Required Credit (2) (6)	Total Required Credit (3) (9)	Total Required Credit (2) (8)	Total Required Credit (3)	Total Required Credit 20	Credit	Marks
Sem-I	MAJOR A (4) MAJOR B (4) MAJOR C (4)	MDC-I (3)	AEC-104 General English	SEC-I	-	-	-	20	500
Sem-II	MAJOR A (4) MAJOR B (4) MAJOR C (4)	MDC-II (3)	AEC-105 General Hindi	-	VAC-I Physical Fitness	ISO – 25 (1)	-	20	500
Total	24	6	4	3	2	1		40	1000
The allocation of the 2 Majors and minor subject is strictly based on merit (Performance in Sem - I & II)									
The student requires 40 credits during the first year of the undergraduate program for qualifying for an Undergraduate Certificate								40	1000
Sem-III	MAJOR-A1(4) MAJOR-A2(4) MAJOR-B1(4) MAJOR-B2(4) MINOR-C(4)	-	-	-	VAC-III GEN-106-Env. Cons. (2)	-	-	22	550
Sem-IV	MAJOR-A1(4) MAJOR-A2(4) MAJOR-B1(4) MAJOR-B2(4) MINOR-C (4)	-	50 COMM. ENG (2)	-	-	-	-	22	550
Total	40	-	2	-	2	-		44	1100
	64	6	6	3	4	1		84	2100
The student requires 84 credits during the second year of the undergraduate program for qualifying for a Diploma									
Sem-V	MAJOR-A1(4) MAJOR-A2(4) /DSE-A2 MAJOR-B1(4) MAJOR-B2(4) /DSE-B2	-	-	SEC-V (3)	VAC-V Moocs/ swayam/ EEA(1)	ISO - 50 (2)	-	22	550
Sem-VI	MAJOR-A1(4) MAJOR-A2(4) /DSE-A2 MAJOR-B1(4) MAJOR-B2(4) /DSE-B2	-	-	SEC-VI (3)	VAC-VI Democratic awareness with legal literacy/ NSS/NCC(3)	-	-	22	550
Total	32	-	-	6	4	02	-	44	1100
	96	6	6	9	8	3		128	3200

On successful completion of three years, the relevant Undergraduate Degree shall be awarded. A Bachelor's degree requires 128 credits									
4 YEAR UNDER GRADUATE HONOURS PROGRAM									
Sem-VII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	-	-	MAJOR-A3 (6) /DSE-A3 MAJOR-A4 (6)	24	400
Sem-VIII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	-	-	MAJOR-A3 (6) MAJOR-A4 (6)	24	400
Tot al	24	-	-	-	-	-	24	48	800
	120	6	6	9	8	3	24	176	4000
On the successful completion of the fourth year, a student shall be awarded an HONOURS Degree. A Bachelor's degree with Honours requires a total of 176 credits (to have an Honours Degree Major Subject should have 50% of total credits)									
4 YEAR UNDER GRADUATE HONOURS WITH RESEARCH									
Sem-VII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	- -		MAJOR-A3 (6) /DSE-A3 MAJOR-A4 Research Methodology (6)	24	400
Sem-VIII	MAJOR-A1(6) MAJOR-A2(6)	-		-	- -	- -	Research Project-II(12) OR Dissertation-II (12)	24	400
Total	24	-	-	-	-	-	24	48	800
	120	6	6	9	8	3	24	176	4000
On the successful completion of the fourth year, a student shall be awarded a Degree Honours with Research. A Bachelor's degree of Honours with Research requires a total of 176 credits									

OUTLINE FOR UNDERGRADUATE COURSES UNDER NEP

The UGC has formulated a new student-centric "Curriculum and Credit Framework for Undergraduate Programmes (CCFUP)" incorporating a flexible choice-based credit system, multidisciplinary approach, and multiple entry and exit options. This will facilities students to pursue their career path by choosing the subject/field of their interest.

The NEP 2020 undergraduate curriculum is a significant shift towards a more student-centric and flexible learning experience. It empowers students to design their own educational journeys and graduate with the knowledge and skills to thrive in the 21st century workforce.

Undergraduate degree programmes of either 3 or 4-year duration, with multiple entry and exit points and re-entry options, with appropriate certifications such as:

- A UG Certificate after completing 1year (two semesters) of study in the chosen fields of study.
- A UG Diploma after 2 years (four semesters) of study.
- A Bachelor's degree after a 3-year (six semesters) programme of study.
- A 4-year bachelor's degree (Honours) after eight semesters programme of study.
- If the student completes a rigorous research project in their major area(a) of study in the 4th year of a bachelor's degree (Honours with Research).

Course Under Choice Based Credit System (CBCS)

9. **Major Discipline:**
    a. **Discipline Specific Core Courses (DSCC):** A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core Course. Each core course carries 4 credits for non-practical course and for practical core course carries 4 credits (3 theory + 1 practical).
    b. **Discipline Specific Elective (DSE):** Choice of specific topics as per a student's need. Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective. Each core course carries 4 credits.
10. **Minor Course:** is a program that allows students to explore topics that cross traditional academic boundaries. These are designed to foster a more holistic and flexible education, encourage students to develop a broader skill set and a diverse knowledge base. Each minor course carries 4 credits.
11. **Multi-Disciplinary Course (MDC):** MDC are designed to bridge gaps between traditional academic boundaries, allowing students to explore and integrate knowledge from multiple disciplines. MDC courses offer a broad perspective and encourage creative problem-solving by exposing students to a range of subjects, 3 credits is assigned to MDC, students can select MDC in Semester 1 and 2. Student take elective courses outside their major, fostering cross-disciplinary knowledge.
12. **Ability Enhancement Core Courses (AECC) :** AECC are a category of courses designed to help students develop essential skills and knowledge that enhance their overall learning experience and personal development. It carries 2 credits each in Semester 1, 2 and 4.
13. **Skill Enhancement Course (SEC):** SEC are designed to equip students with practical skills and competencies that are relevant to the workforce and society. Skill-based education and vocational training to ensure students are employable and can contribute to economic and social needs. SEC has 3 credits each in semester 1, 5 and 6. These courses may be choosen from the SEC table as given in Semester 1, 5 and 6.
14. **Value Added Course (VAC):** VAC are designed for holistic development, encourage interdisciplinary learning, and prepare students for the demands of the modern workforce. These courses offer flexibility and can be tailored to meet emerging trends and industry needs. These courses are available in Semester 2, 3, 5 and 6. Each VAC carries 2 credits.
15. **Social Outreach / Summer Internship (SOR):** Community service involve students engaging in activities that benefit their communities, fostering a sense of social responsibility and civic engagement. SOR carries 3 credits each in Semester 2 and 5.

16. **Project, Dissertation & Internships:** These activities play a significant role in the NEP, as they offer students practical experience, real-world exposure and the opportunity to apply their knowledge to real-world situations. These elements are designed to bridge the gap between academic learning and industry requirements, ensuring that graduates are better prepared for employment or further studies.

Program Outcome

Program outcomes for a Bachelor Science (B.Sc.) program, designed to align with the guidelines of the National Assessment and Accreditation Council (NAAC) and the National Education Policy (NEP) in India:

1. **Scientific Understanding and Practical Knowledge gain**: Students will be able to **analyze** and **evaluate** texts, theories, and concepts across various disciplines within the scientific domain, fostering informed reasoning and decision-making.
2. **Communication Skills and Digital Literacy**: Students will be able to **communicate** scientific concepts clearly and effectively, both orally and in writing, to a variety of audiences. Students will be able to **demonstrate** proficiency in using digital tools and technologies for research, communication, and collaboration, adapting to the demands of the modern workforce.
3. **Environmental Sustainability and Human welfare**: Students will be able to assess and evaluate both natural and Human environment, changes and their impacts on the ecosystem and human societies, proposing sustainable management strategies.
4. **Moral Ethical Awareness, Social Responsibility, and Community Engagement**: Students can **apply** moral and ethical principles and social responsibilities, enabling them to make morally sound decisions in personal and professional settings. Will be able to foster a sense of civic responsibility and service
5. **Critical Thinking and Analytical Reasoning:** Students will be able to **identify**, **evaluate**, **analyze and** effective strategies to solve real-world problems, preparing them for contemporary challenges.
6. **Scientific Reasoning and Problem-Solving:** Students can logically reason, discuss, interpret, and draw conclusions from the quantitative/qualitative data and experimental evidence. They will develop the capacity to extrapolate from what one has learnt and apply their competencies to solve problems contextualize into research and apply once learning to real-life situations

DEPARTMENT OF MATHAMETICS

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJMAT-101	Differential Calculus and Matrices	Major	04	04	10	20	70	40/100
AEC	General English	AEC		02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJMAT – 101: Differential Calculus and Matrices

Max. Marks: 100 **Min. Marks: 40**
Credit: 04 **Duration:2½Hrs**

Course Outcome: On successful completion of the course, students will be able to:

- Find pedal equation and asymptote of different curves.
- Solve problem related to radius of curvature and Partial differentiation.
- Apply the concepts of matrices to solve the real life problems.

Unit – I

Differential Calculus: Pedal equation and derivative of the length of an arc, asymptotes in cartesian coordinates, oblique asymptote, asymptote parallel to the co-ordinate axes, intersection of curve and its asymptote, tests for concavity, convexity and point of inflexion, singular points.

Unit – II

Curvature, radius of curvature at the origin, radius of curvature for (cartesian, polar, parametric and pedal curves), centre of curvature, length of chord of curvature parallel to the axis, length of chord of curvature passing through the pole and perpendicular to the radius vector, curve tracing (for cartesian and polar equations). Partial differentiation, change of variables, Euler's theorem on homogeneous functions, differentiation of implicit functions.

Unit - III

Matrices: Matrix, types of matrices, elementary operations on matrices, symmetric and skew symmetric matrices, hermitian and skew hermitian matrices, unitary matrix. Inverse of matrix, linear independence of row and column matrices, row rank, column rank and rank of matrix, equivalence of column and row rank. Applications of matrices to solve a system of linear (both homogeneous and non-homogenous) equations, theorems on consistency of a system of linear equation, eigen values, eigen vectors and the characteristic equation of a matrix, Cayley-Hamilton theorem and its use in finding inverse of a matrix.

Reference Books:

- Narayan, S. and Mittal P.K.. *A Text Book of Matrices*. S. Chand. New Delhi.
- Vasishtha A.R. and Chauhan J.P. *Matrices*. Krishna Publication.
- Gokhroo D.C. and Gokhroo Anil. *Matrices*. Navkar Prakashan, Ajmer.
- Chatterji, P.N.. *Differential Calculus*. Rajhans Prakashan Mandir, Meerut.
- Narayan, S..*Differential Calculus*. Jaipur Publication House.
- Gokhroo, D.C. and Gokhroo Anil. *Differential Calculus*, Navkar Prakashan, Ajmer.

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJMAT-201	Vector Calculus and Geometry	Major	04	04	10	20	70	40/100
MDC-206	Fundamentals of Mathematics	MDC	03	03	5	20	50	30/75
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
ISO	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MJMAT– 201: Vector Calculus and Geometry

Max. Marks: 100 **Min. Marks: 40**
Credit: 04 **Duration:2½Hrs**

Course Outcome: On successful completion of the course, students will be able to:

- Learn the concepts of vector differentiations and integrations.
- Explain different types of conics in Cartesian coordinates.
- Solve Problem related to 3-Dimensional figure like Sphere, Cone and Cylinder.

Unit I

Vector Calculus: Scalar and vector point function, vector differentiation, gradient of a scalar point function, directional derivatives, vector equation of tangent plane and normal plane to the surface, divergence and curl of vector point function, identities involving these operators and related problems, vector integration, line and surface integral, theorem of Gauss, Green's and Stoke's (statements and verification only).

Unit II

2 D Geometry: General equation of second degree, tracing of conics, centre of a conic, coordinates of the centre. Equation of the conic referred to centre as origin, asymptotes of a conic, length and position of axes of a standard conic, tracing of ellipse, parabola and hyperbola.
The Polar equation of conic: polar equation of a straight line, circle and conic chord, auxiliary circle, tracing of conic $\frac{l}{r} = 1 + e\cos\theta$

Unit III

3 D Geometry: Sphere, plane section of a sphere, tangent line and tangent plane of sphere, cone, enveloping cone and its equation, tangent plane of cone, reciprocal cone and its equation, cylinder, right circular cylinder and its equation, enveloping cylinder and its equation.

Reference Books:

- Matthews P.C. *Vector Calculus*. Springer.
- Narayan, S. *Text Book of Vector Calculus*. S.Chand. New Delhi.
- Chatterji, P.N..*Solid Geometry*. Rajhans Prakashan Mandir. Meerut.
- Prasad, G. and Gupta, H.C..*Text Book on Coordinate Geometry*. Pothishala Private limited.
- Allahabad.
- Gokhroo, D.C. and Gokhroo Anil. *Coordinate Geometry*. Navkar Prakashan, Ajmer.
- Gokhroo, D.C. and Gokhroo Anil. *Vector Calculus*. Navkar Prakashan, Ajmer.

DEPARTMENT OF PHYSICS

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJPHY-101	Mechanics	Major	03	03	5	20	50	30/75
MJPHY-102	Practical	Major	01	01	-	-	25	10/25
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJPHY–101: Mechanics

Max. Marks:75 **Min Marks: 30**
Credits: 03 **Duration : 2½ Hrs**

Course Outcome: On successful completition of the course, students will be able to:

- Understand the Concept of Centre of mass and angular momentum.
- Study surface tension, viscosity and their applications.
- Explain elasticity, its types and `cantilever its application in bending.

Unit – I

System of particles, Centre of mass, Centre of mass of two particles and N particles systems, motion of centre of mass, Concept of reduced mass, energy and momentum conservation, concepts of elastic and inelastic collisions. Elastic Collision of two particles moving in one dimension and in two dimensions. Angular momentum of a system, Conservation of angular momentum, angular momentum of system about an arbitrary point and rigid body motion, Rotational motion, equation of motion of a rotating body, kinetic energy of rotation and idea of principles axes

Unit – II

Kinematics of moving fluids, Equation of continuity, Bernoulli's theorem and its applications – atomizer, Torricelli's theorem and ventruimeter, Viscous fluids, Stream line and Turbulent flow, Poiseuille's law, Capillary tube flow, Reynold's number, Stokes law, Terminal velocity, Surface tension, its applications and surface energy, molecular interpretation of surface tension. Surface Energy, Excess pressure inside a soap bubble, a liquid drop and an air bubble

Unit – III

Elasticity, stress & strain, Small deformations, Young's modulus, Bulk modulus and Modulus of rigidity for an isotropic solid, Energy stored in a stretched wire, Poisson ratio, relation between elastic constants. Theory of bending of beams and Cantilever supported at both ends and loaded at middle.Torsion of a cylinder, Bending moments and Shearing forces, Maxwell's Needle.

Reference Books:

- V.K. Jain, (2009), Classical Mechanics, 2nd Edition, Anne Book Private Ltd.
- H. Goldstein, Classical Mechanics, 2nd Edition, Addison-Wesley
- 3 E.M. Purcell, (2017), Berkeley Physics Course, Vol. I Mechanics 3rd Edition, M C Graw Hill Edu.

- R. S. Gambhir,(1992), Mechanics, CBS Publishers and Distributors
- Joseph Stiles Beggs,(1993) Kinematics, CRC Press

MJPHY – 102 : Practical

Max. Marks:25 **Min. Marks: 10**
Credits: 1 **Duration: 4 Hrs**

Course Outcome: On successful completition of the course, students will be able to:

- Understand scientific and practical knowledge of different oscillators (SHM).
- Evaluate and analyze characteristics of a semiconductor diode.
- Solve and draws conclusions from the qualitative and Quantative data and experimental evidence.

List of Experiments:

- Modulus of rigidity by Maxwell's needle
- Elastic constants by Searl's method
- Viscosity of glycerine through a uniform capillary tube
- Low resistance by Carey Foster's Bridge with callibration
- Draw forward and reverse bias characteristics of a semiconductor diode.
- Study of parallel axis for moment of Inertia

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJPHY-201	Electromagnetics	Major	03	03	5	20	50	30/75
MJPHY-202	Practical	Major	01	01	-	-	25	10/25
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
ISO	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MJPHY – 201 Electromagnetics

Max. Marks: 75 **Min. Marks: 30**
Credits: 3 **Duration: 2½Hrs**

Course Outcome: On successful completition of the course, students will be able to:

- Understand gradient, div & curl and their applications.
- Classify Electrostatic properties of conductors and various boundary conditions.
- Explain Magnetic field and analysis of AC circuits.

Unit - I

Scalars and Vectors: dot products, vector product, triple vector product, gradient of scalar field and its geometrical interpretation, divergence and curl of a vector field. Electric Flux and magnetic flux, flux of vector field, Gauss's divergence theorem, Stokes theorem. Gauss's Law. Integral and differential form form of Gauss's Law, Coulomb'slaw and vector form of Coulomb's Law. Elecric potential at any point due to a charged shell and charged non-conducting solid sphere.

Unit – II

Electric field in matter: atomic and molecular dipoles, permanent dipole moment. Capacity of parallel plate capacitor (with partially or completely filled dielectric), electric displacement, Lorentz local field and Clausius Mossotti equation
Electrostatic field – conductors in electric field, Boundary conditions for potential and field at dielectric surface, Poisson's and Laplace's equations in Cartesian, cylindrical and spherical polar coordinates (without derivation).

Unit - III

Concept of magnetic field Band magnetic flux, Biot-Savart's law, Bdue to a straight current carrying conductor, Ampere circuital law (integral and differential form), Force on a current carrying wire and torque on a current loop in a magnetic field, Maxwell's equations (integral and differential form) and displacement current.
Electromagnetic induction, Faraday law (its integral and differential form) Lenz's law, mutual & self inductance, Charging, discharging of condenser through resistance, rise and decay of current in LR circuit, decay constant, transient in LCR circuit

Reference Books:

- Ed. E.M. Procell,Electricity and Magnetism, (Mc Graw Hill)
- Haliday and Resnik, (2007)'Physics'-Vol. II,Wiley
- D. J. Griffith (2015)"Introduction to electrodynamics", Pearson Education India Learning Pvt.Ltd.
- A.M. Portis, 'Electromagnetic field', John Wiley&sons
- V.V. Savate,(2015) 'Electromagnetic field and Waves', (Wiley Eastern Ltd., New Delhi.)

MJPHY–202: Practical

Max. Marks:25 **Min. Marks: 10**
Credits: 1 **Duration:3hrs**

Course Outcome: On successful completition of the course, students will be able to:

- Understand scientific and practical knowledge of conversion of Galvanometer to Ammeter or Voltmeter.
- Evaluate, analyze and effective strategies to solve LCR circuit.
- Students demonstrate proficiency in using digital tools and technology to solve basic logic gates.

List of Experiments:

- Series LCR circuit to determine its resonance frequency and quality factor
- Verify truth table for basic logic gates OR,AND, NOT,NOR NAND, XOR
- Study of compound pendulum
- Conversion of galvanometer into voltmeter
- Conversion of galvanometer into ammeter
- Verify maximum power transfer theorem

DEPARTMENT OF CHEMISTRY

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJCHE-101	Fundamentals of Inorganic Chemistry	Major	03	03	5	20	50	30/75
MJCHE-102	Practical	Major	02	01	-	-	25	10/25
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJCHE – 101 : Fundamentals of Inorganic Chemistry

Max. Marks: 75 **Min. Marks: 30**
Credit: 03 **Duration: 2½ Hrs**

Course outcomes: On successful completion of the course the student will be able to-

- Identify basic concepts related to atomic structure.
- Interpret geometries of molecules based on VBT and MOT.
- Demonstrate concepts and properties of ionic solids.

Unit I

Atomic Structure

de-Broglie matter waves, Heisenberg uncertainty principle, Schrodinger wave equation and its derivation, significance of ψ and ψ^2, quantum numbers (Principal Quantum Number, Azimuthal Quantum Number, Magnetic Quantum number, Spin quantum number), atomic orbitals-shapes of s, p, d orbitals, Aufbau Principle, Pauli's Exclusion principle, Hund's rule of maximum multiplicity, (n+l) rule, Electronic configurations of elements, stability of half-filled and completely filled orbitals, anomalous electronic configurations, IUPAC nomenclature of elements with atomic number more than 100, Effective Nuclear Charge and Slater's rule.

Unit II

Chemical Bonding

Covalent Bond – Valence bond theory and its limitations, Hybridization – Introduction, Rules, various types of hybridization (sp, sp^2, sp^3, dsp^2, sp^3d, dsp^3, sp^3d^2, d^2sp^3, sp^3d^3 with suitable examples of inorganic molecules and ions), Molecular Orbital theory – Postulates, Molecular orbital diagram of homonuclear (H_2, He_2, He_2^+ Li_2, Be_2, B_2, C_2, N_2, O_2, O_2^-, O_2^{2-}, O_2^+, O_2^{2+}, F_2, Ne_2 and heteronuclear (CO and NO)diatomic molecules, Advantages, Similarities and differences between Valence bond and Molecular orbital Theory.

Unit III

Ionic Solids

Lattice defects – Stochiometric (Schottky and Frenkel) defects, Non Stochiometric (Metal Excess and Metal deficiency) defects, Impurity defects, Semiconductors and its types (Intrinsic and Extrinsic semiconductors), Lattice energy – definition, Madelung constant, calculation (Born equation), factors affecting lattice energy, Born-Haber cycle and its applications, solvation energy- definition, factors affecting solvation energy, solubility of ionic solids, polarizing power and polarisability of ions, Fajan's rule and its applications.

Reference Books:

- J.D. Lee: A New Concise Inorganic Chemistry, E.L.B.S.
- Ajai Kumar: Basic Inorganic Chemistry, Aaryush Education
- F.A.Cotton & G. Wilkinson: Basic Inorganic Chemistry, John Wiley.

- Douglas, McDaniel and Alexander: Concepts and Models in Inorganic Chemistry, John Wiley.
- D.F.Shriver and P.W.Atkins: Inorganic Chemistry, Oxford UniversityPress.
- G.L.Miessler and Donald A. Tarr: Inorganic Chemistry, Pearson Publication.
- Gary Wulfsberg: Inorganic Chemistry, Viva Books Pvt. Ltd.
- Puri, Sharma, Kalia: Text book of Inorganic Chemistry, Vishal publications, Jalandhar

MJCHE – 102 : Practical

Max. Marks: 25 **Min Marks: 10**
Credit: 01 **Duration: 4 Hrs**

Course Outcomes: On successful completion of the course the studentwill be able to-

- Estimate the real weights and volumes of Apparatus.
- Prepare solutions of various concentrations.
- Analyze the concentrations quantitatively through volumetric titration.

1. Inorganic Chemistry

(i) Calibration of fractional weights, pipettes and burettes.
(ii) Preparation of standard solutions.
(iii) Dilution of solutions.

2. Quantitative Analysis

Volumetric Analysis

(i) Determination of acetic acid in commercial vinegar using NaOH.
(ii) Determination of alkali content-antacid tablet using HCl.
(iii) Estimation of calcium content in chalk as calcium oxalate by potassium permanganate.
(iv) Estimation of hardness of water by EDTA.
(v) Estimation of ferrous and ferric by dichromate method.
(vi) Estimation of copper using thiosulphate.

Reference Books:

- J. Bassett, R.C. Denney, G.H. Heffery and J Mendham: *Vogel's Textbook of Quantitative Inorganic Analysis* (revised), ELBS.
- W.W. Scott: *Standard Methods of Chemical Analysis*, The TechnicalPress.
- P.R. Singh, D.S. Gupta and K.S. Bajpai: *Experimental Organic Chemistry* Vol. I&II, Tata McGraw Hill.
- R.K. Bansal: *Laboratory Manual in Organic Chemistry*, Wiley Eastern.
- B.S. Furniss, A.J.Hannaford, V. Rogers, P.W.G. Smith and A.R. Tatchell: *Vogel's Textbook of Practical Organic Chemistry*, ELBS

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJCHE-201	Fundamentals of Organic Chemistry	Major	03	03	5	20	50	30/75
MJCHE-202	Practical	Major	01	01	0	0	25	10/25
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MJCHE – 201: Fundamentals of Organic Chemistry

Max. Marks: 75 **Min. Marks 30**
Credit: 03 **Duration: 2½ Hrs**

Course outcomes: On successful completion of the course the student will be able to-

- Identify the structure and bonding in common organic molecules and mechanism of organic reactions.
- Comprehend aromaticity of arenes and mechanism of electrophilic substitution reactions.
- Assess the stereochemistry of organic compounds.

Unit I

Basic Concepts of Organic Chemistry

Electronic displacements: inductive effect and their applications, electromeric, resonance, Necessary conditions for resonance, contribution of resonationg structures, hyperconjugation and its effects.

Types of fission: homolytic and heterolytic bond fission. Types of reagents- electrophiles and nucleophiles, Types of organic reactions: addition, elimination, substitution and rearrangement reactions.

Reactive intermediates- carbocations, carbanions, free radicals, carbenes, arynes and nitrenes (with example). Hydrogen bonding – Definition, strength, type of hydrogen bond (Intermolecular and Intramolecular hydrogen bonding), effects of hydrogen bonding on physical properties.

Unit II

1. **Arenes and aromaticity**
   Nomenclature of aromatic organic compounds, Isomerism in aromatic compounds, Structure of benzene: molecular formula and Kekule structure, Evidences in favour of Kekule structure, demerits of Kekule structure, Kekule's dynamic structure, MO picture, Stability of benzene. Aromaticity: Huckel rule, applications of Huckel's rule.
2. **Aromatic electrophilic substitution**
   Electrophilic attack on benzene nucleus, role of sigma and pi- Complexes, General pattern of the mechanism, Energy profile diagrams, Mechanism of nitration, halogenation, sulphonation, mercuration and Friedel-Crafts reaction, activating and deactivating substituents, stabilty of arenium ion and ortho/para ratio.

Unit III

Stereochemistry of Organic Compounds

Concept of isomerism, Stereoisomerism and its types, Optical isomerism-elements of symmetry, molecular chirality, enantiomers, stereogenic centre, optical activity, properties of enantiomers, chiral and achiral molecules with two stereogenic centres, diastereomers, threo and erythro diastereomers,meso compounds, resolution of enantiomers, inversion, retention and racemization, Newman projection and Sawhorse formulae, Fischer and flying wedge formulae, Difference between configuration and conformation, Relative and absolute configuration, sequence rules, D & L and R & S systems of nomenclature,Geometric isomerism- determination of configuration of geometric isomers, E & Z system of nomenclature, Conformational isomerism- conformational analysis of ethane and n-butane, conformations of cyclohexane, Qualitative treatment of stability of chair and boat conformations of cyclohexane, axial and equatorial bonds in cyclohexane.

Reference Books:

- R.T.Morrison & R.N.Boyd: *Organic Chemistry*, Prentice Hall.
- T.W.Graham Solomons: *Organic Chemistry*, John Wiley and Sons.
- Peter Sykes: *A Guide Book to Reaction Mechanism in Organic Chemistry*, Orient Longman
- I.L.Finar:*Organic Chemistry* (Vols. I & II), E.L.B.S.
- Jerry March: *Advanced Organic Chemistry*, John Wiley and Sons.
- E.L.Eliel: *Sterochemistry of Carbon Compounds*, Tata McGraw Hill.

MJCHE–202: Practical

Max. Marks: 25 **Min Marks: 10**
Credit: 01 **Duration: 4 Hrs**

Course Outcomes: On successful completion of the course the student will be able to-

- Demonstrate basic laboratory techniques.
- Compute melting and boiling points of various organic compounds.
- Analyze the elements and functional groups in simple organic compounds.

1. **Laboratory Techniques**
   a) **Calibration of Thermometer**
   Naphthalene (80-82^{O}C) Acetanilide (113.5-114ºC), Urea (132.5-133^{O}C), Distilled Water (100^{O}C)
   b) **Determination of Melting Point**
   Naphthalene(80-82°C), Benzoic acid (121.5-122°C), Urea (132.5-133°C), Succinic acid (184.5-185°C), Cinnamic acid (132.5-133°C), Salicyclic acid (154.5-158°C),Acetanilide (113.5-114°C), m-Dinitrobenzene (90°C), p-dichlorobenzene (52°C), Aspirin (135°C)
   c) **Determination of boiling points**
   Ethanol (78°C), Cyclohexane (81.4°C), Toluene(110.6°C), Benzene (80°C)
   d) **Distillation**
   Simple distillation of ethanol-water mixture using water condenser.Distillation of nitrobenzene and aniline using air condenser
   e) **Crystallization**
   Concept of induction of crystallization
   Phthalic acid from hot water (using fluted filter paper and stemless funnel)
   Acetanilide from boiling ethanol Benzoic acid from water
   f) **Decolorisation and crystallization using charcoal** Decolorisation of brown sugar (sucrose) with animal charcoal using gravity filtration.
   Crystallization and decolorisation of impure naphthalene (100 g of naphthalene mixed with 0.3 g of Congo red using 1 g decolorising carbon) from ethanol.
   g) **Sublimation (Simple and Vacuum)**
   Camphor, Naphthalene, Phthalic acid and Succinic Acid.
2. **Qualitative Analysis**
   Detection of extra elements (N,S and halogens) and functional groups(phenolic, carboxylic, carbonyl, esters, carbohydrates, amines, amides, nitro and anilide) in simple organic compounds.

Reference books

- P.R. Singh, D.S. Gupta and K.S. Bajpai: *Experimental Organic Chemistry* Vol. I&II, Tata McGraw Hill.
- R.K. Bansal: *Laboratory Manual in Organic Chemistry*, Wiley Eastern.
- B.S. Furniss, A.J. Hannaford, V. Rogers, P.W.G. Smith and A.R. Tatchell: *Vogel's Textbook of Practical Organic Chemistry*, ELBS.
- J.B.Yadav: *Advanced Practical Physical Chemistry*, Vol. I-Physical, Goel Publishing House.
- J.N. Gurtu and R. Kapoor: *Advanced Experimental Chemistry*, Vol. I-Physical, S Chand & Co.
- Svehla: *Vogel's Qualitative Inorganic analysis*, revised, Orient Longma

DEPARTMENT OF BOTANY

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJBOT-101	Phycology and Mycology	Major	03	03	5	20	50	30/75
MJBOT-102	Practical	Major	02	01	-	-	25	10/25
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJBOT 101: Phychology and Mycology

Max. Marks: 75 **Min. Marks: 30**
Credit: 03 **Duration: 2½ Hrs.**

Course Outcome: On successful completion of the course, the students will be able to

1. Understand and compare thallus organization, pigments, reserve food, life cycle, economic importance etc. in different classes of algae.
2. Illustrate structural and developmental details of different algal genera.
3. Develop conceptual skill about identifying algae, fungi & lichens.

Unit I

Algae- General characters, Thallus organization, Pigments, Reserve food material, Classification (Fritsch), Economic importance, Algal bloom, Types of life cycle
A General account of lichens

Unit II

Important features and life history of:
Chlorophyceae- *Volvox*, *Oedogonium*
Xanthophyceae- *Vaucheria*
Phaeophyceae- *Ectocarpus*
Rhodophyceae- *Polysiphonia*

Unit III

Fungi- General characters, Classification (Alexopolous & Mims, 1979), Economic importance
Important features and life history of:
Mastigomycotina- *Phytophthora*
Zygomycotina- *Mucor*
Ascomycotina- *Eurotium, Peziza*
Basidiomycotina- *Puccinia, Agaricus*
Reference Books:

- Smith, G.M. Cryptogamic Botany. Vol. I Algae and fungi. Tata McGraw Hill Publishing Co. New Delhi.
- Sharma, O.P. Text Book of Thallophytes. Mc Graw Hill Pub.Co.
- Sharma, P.D. The Fungi. Rastogi and Co., Meerut
- Dube, H.C. An introduction to Fungi. Vikas Pub. House Pvt. Ltd. Delhi.
- Gilbart, Smith, M. Cryptogamic Botany, Vol. I & II (2nd edition) Tata McGraw Hill Publishing Co. New Delhi.

MJBOT 102: PRACTICAL

Max. Marks: 25 **Min. Marks: 10**
Credit: 01 **Duration: 2 Hrs.**

Course Outcome: On successful completion of the course, the students will be able to
1. Perform staining, mounting and section cutting of various genera of algae and fungi.
2. Illustrate structural details of different algal and fungal genera.
3. Develop conceptual skill about identifying algae, fungi & lichens.

Distribution of Marks:
Experiments: = 08 marks, Spots = 06 marks, Viva Voce: = 06 marks, Record: =05marks
Suggested Laboratory Exercises:

1. Study of genera included under

Algae - Chlorophyceae- *Volvox, Oedogonium*

Xanthophyceae- *Vaucheria*

Phaeophyceae- *Ectocarpus*

Rhodophyceae- *Polysiphonia*

Fungi - Mastigomycotina- *Phytophthora*

Zygomycotina- *Mucor*

Ascomycotina- *Eurotium, Peziza*

Basidiomycotina- *Puccinia, Agaricus*

2. Study of crustose, foliose and other types of lichen thalli.

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJBOT-201	Microbiology and Plant Pathology	Major	03	03	5	20	50	30/75
MJBOT-202	Practical	Major	02	01	-	-	25	10/25
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
ISO	Social Outreach Programme	ISO	01	01	-	-	25	10/25

MJBOT 201: Microbiology and Plant Pathology

Max. Marks: 75 **Min. Marks: 30**
Credit: 03 **Duration: 2½ Hrs.**

Course Outcome: On successful completion of the course, the students will be able to
1. Relate the structure and nature of micro-organisms.
2. Understand the etiology and epidemiology of plant diseases.
3. Predict the control measures to minimize the adverse effect of pathogens on commercial crops.

Unit I

Classification of living world (Whittakar's five kingdom classification)
Bacteria- structure, reproduction (Binary fission, transformation, conjugation & transduction). Gram staining, economic and biological importance, General account of Cyanobacteria: *Nostoc, Oscillatoria*
General features of: Rickettsias, Archaebacteria and Actinomycetes

Unit II

Virus- General account (characters, types), Structure (TMV & Bacteriophage), multiplication (Lytic & Lysogenic cycle) and methods of transmission of virus
Mycoplasma- Structure and economic importance; Phytoplasma, Little leaf of brinjal
A general account of diseases caused by plant pathogens:
Bacterial diseases- Citrus canker, Tundu disease of wheat
Viral disease- Tobacco mosaic

Unit III

Host parasite interaction, Important symptoms of plant diseases caused by fungi
Disease cycle and control of:
Fungal diseases- White rust of crucifers, Green ear disease of bajra, Loose Smut of wheat, Red rot of sugarcane, Tikka disease of groundnut

Reference Books:

- Clifton, A. Introduction of the Bacteria. Mc Graw Hill & Co. NewYork
- Bilgrami, K.S. and Dube, H.C. A text book of Modern Plant Pathology, Vikas Pub. New Delhi
- Biswas, S.B. and Biswas, A. An introduction to virus, Vikas Pub. New Delhi.
- Mandahar, C.L. Introduction to Plant Viruses, Chand & Co. Ltd., New Delhi.
- Rangaswamy, G. and Mahadevan, A. Diseases of Crop Plants in India (4th edition), Printice Hall of India Pvt. Ltd., New Delhi.

MJBOT 202: PRACTICAL

Max. Marks: 25 **Min. Marks: 10**
Credit: 01 **Duration: 2 Hrs.**

Course Outcome: On successful completion of the course, the students will be able to
1. Identify disease symptoms in plants infected by bacteria, virus and fungi.
2. Carry out section cutting, staining and mounting of diseased plant material.
3. Perform Gram's staining and identify the type of bacteria.

Distribution of Marks:

Experiments: = 08 marks, Spots = 06 marks, Viva Voce: = 06 marks, Record: =05marks

Suggested Laboratory Exercises:

- Observation of disease symptoms in hosts infected by fungi, viruses, bacteria and Mycoplasma (**Bacterial diseases-** Citrus canker, Tundu disease of wheat **Viral disease-** Tobacco mosaic, Little leaf of brinjal)
- Observation of specimens/ charts of:
    a. White rust of crucifers
    b. Green ear disease of bajra
    c. Loose Smut of wheat
    d. Red rot of sugarcane
    e. Tikka disease of groundnut
- Section cutting of diseased material.
- Gram's staining of bacteria.

DEPARTMENT OF ZOOLOGY
Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJZOO-101	Cell Biology	Major	03	03	5	20	50	30/75
MJZOO-102	Practical	Major	02	01	-	-	25	10/25
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJZOO-101- Cell Biology

Max. Marks: 75 **Min. Marks: 30**
Credit: 03 **Time: 2 ½ Hrs**

Course Outcomes: After completion of the course, the student will be able to:

1. Understand the structural and functional characteristics of the eukaryotic cell membrane, including specialized features and transport mechanisms.
2. Analyze the structure, function, and biogenesis of organelles like mitochondria, endoplasmic reticulum, and chromosomes in cellular organization.
3. Explain the structural variations of DNA and RNA, as well as the mechanisms and regulation of cell division and the cell cycle

Unit– I

1. **Introduction to Cell**: characteristics of Eukaryotic Cell (animal cell), comparison of prokaryotic and eukaryotic cells.
2. **Cell-membrane:** Characteristics of cell membrane molecules, unit membrane concept.
3. **Fluid-mosaic model** of Singer and Nicolson. Structure and functions of membrane proteins: Integral, peripheral and lipid-anchored membrane proteins.
4. **Specializations of Plasma membrane-** Microvilli, desmosomes, gap junction, tight junction, inter-digitations, basal infoldings, plasmodesmata
5. **Cell-membrane transport**: Passive transport, facilitated passive transport, transport of glucose and sodium, active transport, endocytosis, exocytosis, osmosis.

Unit – II

1. Structure and biogenesis of **mitochondria**; Citric Acid Cycle, Electron Transport Chain and generation of ATP molecules.
2. Structure and functions of **endoplasmic reticulum, ribosomes** (prokaryotic and eukaryotic), and **Golgi complex**
3. **Chromosomes**: Morphology, chromonema, chromomeres, telomeres, primary and secondary constrictions, chromatids, prokaryotic chromosomes. **Giant Chromosomes**: Polytene and Lampbrush chromosomes. **Chromosomal organizations**: Euchromatin, Heterochromatin, nucleosome concept.
4. **Nucleus**: Structure and function of the nuclear envelope, nuclear matrix, and nucleolus.
5. Structure and functions of **Lysosomes, Centrioles, Basal Bodies, cilia and flagella.**

Unit – III

1. **DNA** Structure, polymorphism (**A, B, and Z type**)
2. **RNA** structure and types **(mRNA, rRNA, and tRNA)**
3. **Cell division**- mitosis and meiosis. Formation and fate of chiasmata and significance of crossing over
4. **Cell Cycle** and its regulation (role of Cyclins and Cdks)

Reference Books:

1. **Lodish, Berk, Zipursky, Matsudaria, Baltimore, Darnel. '**Molecular cell Biology'W.H. Freeman and Co. New York.
2. **Wayne. M. Becker, Lewis J. Cliensmith, Jeff Hardin '**The World of Cell' Pearson Publication
3. **J. Darnell, H. Lodish and D. Baltimore.**Molecular Cell Biology. Scientific American Books, Inc., USA.
4. **E.D.P. De Robertis and E.M.F. De Robertis Jr.** Cell and Molecular Biology. Lea & Febiger

MJZOO-102-Practical

Max. Marks: 25 **Min. Marks: 10**
Credit: 01 **Time: 4 Hrs**

Course Outcomes: After completion of the course, the student will be able to:

1. Develop proficiency in the principles and usage of optical microscopes for cellular and organismal observations and preparing slides, and applying techniques for staining, dehydration, and mounting biological specimens.
2. Demonstrate practical skills in cell biology techniques, including slide preparation, staining, and the study of cell division. Gain hands-on experience in studying cellular processes like mitosis, meiosis, and chromosome structure through squash preparations and live organism observation.
3. Analyze and document microscopic structures of freshwater fauna and cellular components through project-based learning, enhancing skills in observation, identification, and scientific reporting.

I. Microscopic Techniques:

1. Organization and working of Optical Microscope**:** Dissecting and compound microscopes.

II. Exercises in Cell Biology

1. Squash preparation of onion root tip for the study of mitosis.
2. Study of Cell permeability.

III. Study of the following through permanent slide preparation:

1. General methods of microscopic slide preparations: Narcotisation; fixing and preservation; washing; staining; destaining; dehydration; clearing and mounting.
2. Obelia colony, Cyclops/Daphnia

IV. Study of Permanent Slides- Mitosis, Meiosis, Barr Body, Giant Chromosomes (Polytene/ Lambrush), Cellorganelles (Chart/ Photographs)

V. Project Report on Microscopic Examination of fresh water fauna.

Note:

(i) Use of animals for dissection is subject to the conditions that these are not banned under the Wild Life (Protection) Act.

(ii) We will not procure Museum Specimens from now onwards and will use charts/slides/models/photographs and digital alternatives in case of need. We will arrange for the visit of students to already-established museums.

Scheme of External Practical Examination

Time: 4 hrs. **Max. Marks: 25**

1.	**Exercise in organization and working of Microscope**	**04**
2.	**Exercise in Cell Biology**	**04**
3.	**Permanent Preparation**	**04**
4.	**Spotting**	**04**
5.	**Project Report**	**05**
6.	**Viva & Record**	**04**
	Total	**25**

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJZOO-201	Invertebrate: Classification, structure and Special	Major	03	03	5	20	50	30/75
MJZOO-202	Practical	Major	01	01	-	-	25	10/25
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Programme	SOR	01	01	-	-	25	10/25

MJZOO-201: Invertebrate: Classification, structure and Special Features

Max. Marks: 75 **Min. Marks: 30**

Credit:03 **Time: 2 ½ Hrs**

Course Outcomes After the completion of the course the student will be able to:

1. Understand the basics of invertebrate classification and demonstrate its characters up to classes.
2. A comprehensive understanding of the structural, functional, and adaptive features of key invertebrate groups.
3. They will also be able to analyse the ecological, evolutionary, and economic significance of these organisms

Unit – I

General characters and classification of all phyla up to classes with examples; emphasizing on their biodiversity & economic importance.

1. **Basis of classification of non-chordata: Germ** Layers (Diploblastic and triploblastic) Symmetry (Asymmetrical, Radial, biradial, spherical and bilateral), coelom (acoelom, pseudocoelom, schizocoelous coelom and enterocoelous coelom), segmentation (simple and metameric) and embryogeny (fate of blastopre-protostome and deuterostome).
2. **Concept of protozoa**, Parazoa, Metazoa, Eumetazoa and levels of organization. (cellular, tissue, organ and organ system.)
3. **General principles of taxonomy** - concept of the five kingdom scheme, Binomial and Trinomial Nomenclature.

4. **Invertebrate classification**: salient features of various phyla and their classification up to classes: Protozoa, Porifera, Colenterata, Aschelminthes, Platyhelminthes, Annelida, Arthropoda, Mollusca, Echinodermata.

Unit – II

1. **Protozoa**: Reproduction (asexual and sexual) and Mode of locomotion- Cilia, Flagella and pseudopodia.
2. **Porifera:** Spicules- calcareous, silicious. Canal system: Ascon, Sycon, Leucon and Rhagon Type.
3. **Coelenterata:** Polymorphism, Corals and Coral reefs
4. **Platyhelminthes:** Parasitic adaptations- Morphological and Physiological
5. **Aschelminthes:** Life cycle of Ascaris and its Economic Importance.

Unit - III

1. **Annelida:** Reproduction in Earthworm, Locomotion-Setae and Parapodia
2. **Arthropoda:** Metamorphosis-Ametabolous, Hemimetabolous and Holometabolous Social organization in termites and Bees-life cycle, caste system and its economic importance. Unique features and systematic position of Peripatus.
3. **Mollusca:** Foot and shells, Torsion in Gastropda (Pila)
4. **Echinodermata:** Water vascular system and its function. Unique features of Bipinnaria and Auricularia Larva

MJZOO–202: Practical

Max. Marks: 25 **Min Marks: 10**
Credit: 01 **Time: 4 Hrs**

Course Outcomes After the completion of the course the student will be able to:

1. Master the identification and analysis of permanent preparations like gemmules, spicules, and various invertebrate specimens, enhancing skills in microscopic examination.
2. Develop expertise in recognizing and understanding the anatomy and taxonomy of diverse invertebrate groups through practical observation. Project-based learning, enhancing skills in observation, identification, and scientific reporting the insects and their social organization
3. Gain proficiency in studying the microscopic details of a few invertebrates and learn external anatomy and dissection techniques using models, charts, and digital resources.

I. Permanent preparations: Gemmules and spicules in sponges, Obelia colony

II. Study of invertebrate types.

1. **Porifera**: Leucosolenia, Euplectella, spongilla
2. **Coelenterate**: Physalia, Gorgonia, Pennatula, Sea anemone.
3. **Ctenophora**: Any Ctenophore
4. **Platyhelminths:** Taenia, Fasciola, Planaria
5. **Annelida:** Heteronereis, Aphrodite, Chaetopterus, Polygordius, Peripatus.
6. **Arthropoda**: Limulus, Spider, Centipede, Millipede, Eupagurus, Crab, Mantis, Locust.
7. **Mollusca**: Chiton, Pinactida, Dentalium, Nautilus
8. **Echinodermata**: Pentaceros, Echinus, Cucumaria, Antedon.

III. Study of Microscopic Slides:

1. **Protozoa**: Trypanosoma, Elphidium (Polystomella), Plasmodium, Paramecium, Paramecium showing binary fission and conjugation, Vorticella.
2. **Porifera**: T.S. of Sycon, spicules, spongin fibers
3. **Coelentrata:** Obelia colony, Auerlia life cycle
4. **Platyhelminthes**: Miracidium, Sporocyst, Redia, and Cercaria larvae of Fasciola, Scolex, T.S. mature proglottid of Taenia, Cysticercus.
5. **Aschelminthe**s: Wuchereria, Dracunculus.
6. **Arthropoda**: Crustacean larvae.
7. **Mollusca**: Glochidium

Scheme of External Practical Examination

Time: 4 hrs. **Max. Marks: 25**

1. Permanent Preparation	**05**
2. Spotting	**10**
3. Project Report	**06**
4. Viva & Record	**04**
Total	**25**

SOPHIA GIRLS' COLLEGE
(AUTONOMOUS)
AJMER

Scheme of Examination
And
SYLLABUS
BATCH 2023

FOR
BACHELOR OF COMMERCE
Four-Year Under Graduate Honours Program
(Accountancy & Business Statistics as Major Subject)

Under
Choice Based Credit System (NEP)

Semester - I to II

BACHELOR OF COMMERCE

Eligibility for admission in First Year of BCOM is 10+2 examination of any Board with at least 48% marks. With regard to admission on reserved category seats government rules will be applicable.

SCHEME OF EXAMINATION

The number of the paper and the maximum marks for each paper together, with the minimum marks required to pass are shown against each subject separately. It will be necessary for a candidate to pass in the theory as well as the practical part of a subject/paper, wherever prescribed, separately.

Classification of successful candidates shall be as follows:

First Division 60%	of the aggregate marks prescribed in
Second Division 50%	Semesters I to VI taken together

All the rest shall be declared to have passed the examination.

- For passing a candidate shall have to secure at least 40% marks in each course (Theory and Practical separately).
- No division shall be awarded in Semesters I to V.
- Whenever a candidate appears for a due paper examination, she will do so according to the syllabus in force.
- A candidate not appearing in any examination/absent in any paper of term end examination shall be considered as having DUE in those papers.

End Semester Examination Pattern

Maximum Marks: 70 **Duration: 2½ Hrs**

Section A **10 × 1 = 10 Marks**

Contains 10 Questions of 1 mark each and all are compulsory. Three questions from each unit and one extra question from any one unit

Section B **5+5+5 = 15 Marks**

Contains 3 questions with internal choice (Two questions from each unit). A student has to attempt 3 questions, choosing at least one question from each unit.

Section C **15 × 3 = 45 Marks**

Contains 3 questions with internal choice (Two questions from each unit). Each Question carries 15 marks. A Student has to attempt 3 questions, choosing at least one question from each unit.

FYUP CREDIT SCHEME 2023

STRUCTURE OF 3 YEAR UNDERGRADUATE PROGRAM BASED ON NEP (NON- PRACTICAL SUBJECTS)

SEM	Honours With Research	Multi-Disciplinary Course	Ability Enhancement Course (AEC)	Skill Enhancement Course	Value Added Course	Summer Internship/ Social Outreach	Research Project OR Dissertation	Total	
	Required Credit for Major Course (4)	Total Required Credit (3) (6)	Total Required Credit (2) (6)	Total Required Credit (3) (9)	Total Required Credit (2) (8)	Total Required Credit (3)	Total Required Credit 20	Credit	Marks
Sem-I	MAJOR A (4) MAJOR B (4) MAJOR C (4)	MDC-I (3)	AEC-104 General English	SEC-I	-	-	-	20	500
Sem-II	MAJOR A (4) MAJOR B (4) MAJOR C (4)	MDC-II (3)	AEC-105 General Hindi	-	VAC-I Physical Fitness	SOR – 25 (1)	-	20	500
Total	**24**	**6**	**4**	**3**	**2**	**1**		**40**	**1000**
The allocation of the 2 Majors and minor subject is strictly based on merit (Performance in Sem - I & II)									
The student requires 40 credits during the first year of the undergraduate program for qualifying for an Undergraduate Certificate								**40**	1000
Sem-III	MAJOR-A1(4) MAJOR-A2(4) MAJOR-B1(4) MAJOR-B2(4) MINOR-C(4)	-	-	-	VAC-III GEN-106- Env. Cons. (2)	-	-	22	550
Sem-IV	MAJOR-A1(4) MAJOR-A2(4) MAJOR-B1(4) MAJOR-B2(4) MINOR-C (4)	-	50 COMM. ENG (2)	-	-	-	-	22	550
Total	**40**	**-**	**2**	**-**	**2**	**-**		**44**	**1100**
	64	**6**	**6**	**3**	**4**	**1**		**84**	**2100**
The student requires 84 credits during the second year of the undergraduate program for qualifying for a Diploma									
Sem-V	MAJOR-A1(4) MAJOR-A2(4) /DSE-A2 MAJOR-B1(4) MAJOR-B2(4) /DSE-B2	-	-	**SEC-V (3)**	VAC-V Moocs/ swayam/ EEA(1)	SOR - 50 (2)	-	22	550
Sem-VI	MAJOR-A1(4) MAJOR-A2(4) /DSE-A2 MAJOR-B1(4) MAJOR-B2(4) /DSE-B2	-	-	**SEC-VI (3)**	VAC-VI Democratic awareness	-	-	22	550

					with legal literacy/ NSS/NCC(3)				
Total	**32**	**-**	**-**	**6**	**4**	**02**	**-**	**44**	**1100**
	96	**6**	**6**	**9**	**8**	**3**		**128**	**3200**
On successful completion of three years, the relevant Undergraduate Degree shall be awarded. A Bachelor's degree requires 128 credits									
4 YEAR UNDER GRADUATE HONOURS PROGRAM									
Sem-VII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	-	-	MAJOR-A3 (6) /DSE-A3 MAJOR-A4 (6)	24	400
Sem-VIII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	-	-	MAJOR-A3 (6) MAJOR-A4 (6)	24	400
To tal	**24**	-	-	-	-	-	**24**	**48**	**800**
	120	**6**	**6**	**9**	**8**	**3**	**24**	**176**	**4000**
On the successful completion of the fourth year, a student shall be awarded an HONOURS Degree. A Bachelor's degree with Honours requires a total of 176 credits (to have an Honours Degree Major Subject should have 50% of total credits)									
4 YEAR UNDER GRADUATE HONOURS WITH RESEARCH									
Sem-VII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	- -		MAJOR-A3 (6) /DSE-A3 MAJOR-A4 Research Methodology (6)	24	400
Sem-VIII	MAJOR-A1(6) MAJOR-A2(6)	-		-	- -	- -	Research Project-II(12) **OR** Dissertation-II (12)	24	400
Total	**24**	-	-	-	-	-	**24**	**48**	**800**
	120	**6**	**6**	**9**	**8**	**3**	**24**	**176**	**4000**
On the successful completion of the fourth year, a student shall be awarded a Degree Honours with Research. **A Bachelor's degree of Honours with Research requires a total of 176 credits**									

OUTLINE FOR UNDERGRADUATE COURSES UNDER NEP

The UGC has formulated a new student-centric "Curriculum and Credit Framework for Undergraduate Programmes (CCFUP)" incorporating a flexible choice-based credit system, multidisciplinary approach, and multiple entry and exit options. This will facilities students to pursue their career path by choosing the subject/field of their interest.

The NEP 2020 undergraduate curriculum is a significant shift towards a more student-centric and flexible learning experience. It empowers students to design their own educational journeys and graduate with the knowledge and skills to thrive in the 21st century workforce.

Undergraduate degree programmes of either 3 or 4-year duration, with multiple entry and exit points and re-entry options, with appropriate certifications such as:

- A UG Certificate after completing 1year (two semesters) of study in the chosen fields of study.
- A UG Diploma after 2 years (four semesters) of study.
- A Bachelor's degree after a 3-year (six semesters) programme of study.
- A 4-year bachelor's degree (Honours) after eight semesters programme of study.
- If the student completes a rigorous research project in their major area(a) of study in the 4th year of a bachelor's degree (Honours with Research).

Course Under Choice Based Credit System (CBCS)

17. **Major Discipline:**
    a. **Discipline Specific Core Courses (DSCC):** A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core Course. Each core course carries 4 credits for non-practical course and for practical core course carries 4 credits (3 theory + 1 practical).
    b. **Discipline Specific Elective (DSE):** Choice of specific topics as per a student's need. Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective. Each core course carries 4 credits.
18. **Minor Course:** is a program that allows students to explore topics that cross traditional academic boundaries. These are designed to foster a more holistic and flexible education, encourage students to develop a broader skill set and a diverse knowledge base. Each minor course carries 4 credits.
19. **Multi-Disciplinary Course (MDC):** MDC are designed to bridge gaps between traditional academic boundaries, allowing students to explore and integrate knowledge from multiple disciplines. MDC courses offer a broad perspective and encourage creative problem-solving by exposing students to a range of subjects, 3 credits is assigned to MDC, students can select MDC in Semester 1 and 2. Student take elective courses outside their major, fostering cross-disciplinary knowledge.
20. **Ability Enhancement Core Courses (AECC) :** AECC are a category of courses designed to help students develop essential skills and knowledge that enhance their overall learning experience and personal development. It carries 2 credits each in Semester 1, 2 and 4.
21. **Skill Enhancement Course (SEC):** SEC are designed to equip students with practical skills and competencies that are relevant to the workforce and society. Skill-based education and vocational training to ensure students are employable and can contribute to economic and social needs. SEC has 3 credits each in semester 1, 5 and 6. These courses may be choosen from the SEC table as given in Semester 1, 5 and 6.
22. **Value Added Course (VAC):** VAC are designed for holistic development, encourage interdisciplinary learning, and prepare students for the demands of the modern workforce.

These courses offer flexibility and can be tailored to meet emerging trends and industry needs. These courses are available in Semester 2, 3, 5 and 6. Each VAC carries 2 credits.

23. **Social Outreach / Summer Internship (SOR):** Community service involve students engaging in activities that benefit their communities, fostering a sense of social responsibility and civic engagement. SOR carries 3 credits each in Semester 2 and 5.
24. **Project, Dissertation & Internships:** These activities play a significant role in the NEP, as they offer students practical experience, real-world exposure and the opportunity to apply their knowledge to real-world situations. These elements are designed to bridge the gap between academic learning and industry requirements, ensuring that graduates are better prepared for employment or further studies.

Program Outcome

Program outcomes for a Bachelor of Commerce (B.Com.) program, designed to align with the guidelines of the National Assessment and Accreditation Council (NAAC) and the National Education Policy (NEP) in India:

1. Enhance the foundational knowledge of management, finance, and economics: It enables the learners to get theoretical and practical exposure in the field of commerce including accounts, management, economics, marketing, and human resources.

2. Quantitative Skills: Students will be able to utilize quantitative methods and statistical tools to make informed business decisions based on data analysis.
3. Legal Awareness and Ethical Decision Making: Students will gain a comprehensive understanding of business, companies, industries, and insurance. Students will be able to recognize and address ethical issues in business, ensuring responsible and sustainable practices in their professional conduct.
4. Environmental Sustainability: Students will gain in-depth knowledge of key components of the business environment, including economic, political, legal, technological, social, and cultural factors.
5. Financial and Digital Literacy: Students will be provided with the essential knowledge and skills to navigate e-ommerce, management, and banking domains.
6. Critical and Creative Thinking Skills: Students will demonstrate the ability to think critically and creatively by analyzing complex business problems, synthesizing diverse information, and generating innovative solutions.

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJCOM-101	Financial Accounting	Major	04	04	10	20	70	40/100
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJCOM-101: Financial Accounting

Max. Marks: 100 **Min. Marks: 40**
Credits: 4 **Duration: 2 ½ Hrs.**

Course Outcomes: After completion of the course, student will be able to:

1. Apply accounting standards and insolvency procedures to analyze and interpret financial information and make informed decisions.
2. Allocate costs and revenues accurately to different departments and branches, and analyze the performance of each segment.
3. Account for hire purchase transactions and calculate insurance claims for loss of stock and profit, considering various factors and clauses.

Note: Please make a 60:40 distribution in numerical : theory questions

Unit-I

Financial accounting standards: concept, benefits, procedure for issuing accounting standards in India, Need for a global standard, IFRS-Concept, Need and Procedure.

Dissolution of the partnership firm: Accounting of Dissolution of the partnership firm including insolvency of partners, sales to a limited company and piecemeal distribution.

Insolvency Accounts: Insolvency of Individuals, Firms and Companies; Preparation of Statement of Affairs and Deficiency Accounts in the light of Indian Bankruptcy Code.

Unit-II

Departmental Accounts: Apportionment of Indirect Expenses; Trading and Profit & Loss Account; Inter departmental Transfers.

Branch accounts: objective, types of branch, stock and debtors' method, wholesale branch method and independent branch and inter branch transactions (excluding foreign branches)

Unit-III

Hire Purchase System*:* Features, Difference between Hire purchase and Installment purchase systems, Accounting for Hire Purchase and Installment System: Journal Entries and Ledger Accounts in the Books of Vendor and Purchaser. Default in payment.

Insurance claim for loss of stock and for loss of profit: Loss of Stock-Physical & ownership concept; concept of under-insurance and average clause; computation of claim – with price change; consideration of unusual selling line; price reduction etc. Loss of profit- Concept – insured & uninsured standing charges, GP rate, short sales and increased cost of working, average clause and computation of claim (simple type).

Reference Books:

- Gupta, R.L. and Radhaswamy M. Advanced Accountancy, Sultan Chand & Sons., New Delhi.
- Tulsian P.C., Tulsian Bharat, Tulsian Tushar, Financial Accounting, S. Chand Publishing.
- Shukla, M.C., Grewal, T.S. and Gupta, S.C.: Advanced Accounts, S. Chand & Co., New Delhi
- Paul, S.K., Advanced Accounting, Sultan Chand & Sons, New Delhi.
- Jain S.P. & Narang K.L. Advanced Accounting, Kalyani Publishers.
- Maheshwari & Maheswari. Advanced Accountancy-I, Vikash Publishing Co.

- Sehgal & Sehgal, Advanced Accountancy Vol. I, Taxman Publication.

Note: Latest edition of the book to be referred.

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJCOM-201	Cost Accounting	Major	04	04	10	20	70	40/100
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Programme	SOR	01	01	-	-	25	10/25

MJCOM-201: Cost Accounting

Max. Marks: 100 **Min. Marks: 40**
Credits: 4 **Duration: 2 ½ Hrs.**

Learning Outcomes: On the successful completion of the course, students will be able to:

1. Understand the fundamentals of cost accounting, including cost concepts, classification, and the techniques used to control and analyze costs.
2. Allocate and apportion overheads to cost units and determine product costs using various costing methods, including job, batch, process, and operating costing.
3. Apply specific costing techniques to different production scenarios, including job, batch, contract, and process costing, to determine product costs and assess profitability.

Note: Please make a 60:40 distribution in numerical : theory questions

Unit I

Introduction: Definition of Costing, Objectives of Cost Accounting; Importance of Cost Accounting to Business Concern, Advantages of a Cost Accounting system, Installing a Cost Accounting System, Essentials of a good Cost Accounting System. Cost, Cost object, Cost units and Cost Centers, Types of costs, classification of costs, cost sheet, total costs and unit costs. Costing Methods and Techniques.

Accounting for Material: Material control: concept and techniques; pricing of material issues, treatment of material losses.

Accounting for Labour: Labour cost and control procedure; labour turnover, idle time and overtime; methods of wage payment - time and piece rates; incentive schemes.

Unit II

Accounting for overheads: Introduction Definition, Classification of Overhead- Element-wise, Functional and Behavioral; Need for classifying overhead into fixed and variable; various types of overheads. Allocation and apportionment of Overhead; Absorption of Overhead: various methods and their application; Treatment of under absorption/over absorption of overheads.

Unit Costing: Definition, Objectives, Types of Cost unit, Production Account, Differences between cost sheet and production account, treatment of work in progress, scrap and wastage, spoilage and defectives, opening and closing stock of finished goods, determination of tender price, absorption of overheads.

Operating costing: Introduction, Transport Costing, Hotel Costing, Power house Costing, Hospital Costing and Cinema Costing.

Unit III

Job Costing: Definition, features, procedure, Job Cost sheet.

Batch Costing: Definition, Economic Batch Quantity and its determination, Batch Cost Sheet.
Contract Costing: Progress payments, Retention money, Escalation clause, Contract accounts, Treatment of notional profit, Presentation of work in progress in Balance Sheet.
Process Costing: Meaning, Features, Process v/s Job Costing, preparation of process accounts. Treatment of Normal loss, abnormal loss and abnormal gain, Treatment of Opening and closing Stock, Inter process profit, By Product and Joint Product Cost Accounting.

Reference Books:

- Oswal, Maheshwari, Sharma, Mantri Sharma, Cost Accounting, Ramesh Books Depot Jaipur
- Dr. D.C. Jain, Dr. M.C. Khandelwal and R. Govind Pareek, Cost Accounting, Ajmera Books Co., Jaipur.
- Dr. P.C. Tulsian, Cost Accounting, S. Chand & Co. Ltd, New Delhi.
- Dr. B.K. Mehta, Cost Accounting, S.B.P.D Publishing House, Agra.
- Arora M.N., Cost accounting- Principles and Practice, Vikas Publishing House, New Delhi
- Jain S.P. and Narang K.L., Cost Accounting; Kalyani Publications, New Delhi.
- Horgren, Charles, Foster and Datar, Cost Accounting – A Managerial Emphasis; prentice-Hall of India, New Delhi.
- Maheshwari S.N., Advanced Problems and Solutions in Cost Accounting, Sultan and Chand: New Delhi.

Note: Latest edition of the book to be referred.

Course Structure in Semester-I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJCOM-102	Principles of Management	Major	04	04	10	20	70	40/100
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJCOM-102-Principles of Management

Max. Marks: 100 **Min. Marks: 40**
Credits: 4 **Duration:2 ½ Hrs.**

Course Outcomes: On successful completion of the course, the students will be able to

1. Interpret the concept of management, planning & decision-making.
2. Assess motivation and leadership techniques.
3. Simulate various management skills

UNIT – I

Introduction to Management: Meaning, Definition, Nature, Characteristic, Scope, Levels of Management, Administration Vs. Management, Functions of Management, Schools of management thought, Principles of F.W. Taylor and Henry Fayol.
Planning: Meaning, Importance, Types and Process
Decision Making: Process, techniques.
Organizing: Meaning and Definition, Formal Vs. Informal Organisation, Types of Orgnisation, Organisation Structure, Departmentation, Decentralisation & Centralisation of authority with respective advantages anddisadvantages and Delegation of authority.

UNIT II

Directing: Meaning, Importance and Techniques.
Leadership: Meaning, Qualities of a good leader, Types of Leadership styles **Motivation:** concept and theories – Maslow's hierarchy of needs, Herzberg's dual factor theory, McGregor's theory X and theory Y.
Controlling: Meaning and Definition, Importance, Process, techniques
Management by objectives, **Management by exception** with respective meaning and importance.

UNIT III

Co-ordination – Meaning, need and Principles
Strategic Management: Concept, Importance, Functions and Scope, Techniques
Organisational Behaviour: Introduction, Elements, Scope, Advantages & Limitations
Management of change: Meaning, Importance, Process of Change
Resistance to change: Meaning, Reasons for resistance to change on part of employees, Measures to overcome.
Reference Books :

- Naulakha R.L, Principles Of Management, RBD Publications
- Sudha G.S, Management, Ramesh Book Depot
- Rajpurohit, Sharma, Sharma, Gupta, Management, Ajmera Book Company, Jaipur.
- Note: Latest Edition of the book to be referred

Course Structure in Semester-II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJCOM-202	Business Law	Major	04	04	10	20	70	40/100
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Programme	SOR	01	01	-	-	25	10/25

MJCOM-202-Business Law

Max. Marks: 100 **Min. Marks: 40**
Credits: 4 **Duration: 2½ Hrs**

Course Outcomes: On successful completion of the course, the students will be able to:

1. Interpret the legislative framework relating to Contracts as per Indian Contract Act, 1872.
2. Interpret the legislative framework relating to sale of goods as per Sale of Goods Act, 1930.
3. Interpret the legislative framework relating to consumer protection as per Consumer Protection Act, 2019 and partnership as per Partnership Act, 1932 & LLP Act, 2008.

UNIT-I

The Indian Contract Act 1872: Introduction and Essentials of a valid Contract, Classification of Contracts,Contractual Capacity, Free consent and Consideration, Void Agreement, Contingent Contract, Performance and Discharge ofContract, Remedies for Breach of Contract, Quasi Contract.

UNIT-II

The Indian Contract Act 1872: Contract of Indemnity and Guarantee, Contract of Pledge and Bailment, Agency.

Sale of Goods Act 1930: Introduction of Act, Goods and their classification, conditions and warranties, Doctrine of Caveat Emptor, passing (transfer) of property (ownership) in goods, Performance of the contract of sale, Rights of Unpaid Seller, Auction sale.

Unit –III

Consumer Protection Act 2019: Introduction of Act, Consumer Rights and Duties, Consumer Protection Councils, Central Consumer Protection Authority, Consumer Dispute Redressal Commission, Mediation, Product Liability.

Partnership Act 1932: Introduction, Types of Partnership and types of Partners, Rights and duties of Partners, Dissolution of partnership.

Limited Liability Partnership Act 2008: Meaning, Need, advantages and disadvantages. Incorporation and Dissolution of LLP, Difference between Limited liability Partnership & Partnership.

The Insolvency and Bankruptcy Code, 2016: Concept, Need and Procedure.

Reference Books:

- Kapoor N.D, Elements of Mercantile Law, Sultan Chand & sons, New Delhi.
- Nolakha, R. L. Business Law, RBD Publications, Jaipur.

Note: Latest Edition of the book to be referred

Course Structure in Semester – I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJCOM-103	Business Economics	Major	04	04	10	20	70	40/100
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJCOM-103-Business Economics

Max. Marks: 100 **Min. Marks: 40**
Credits: 4 **Duration:2 ½ Hrs**

Course Outcomes: After completion of the course, student will be able to:

1. Understand and identify the economic variables in general business atmosphere.
2. Perceive the knowledge about economics at Micro level and various economic concepts such as marginal Concepts, demand Function and law of variable proportion
3. Understand the different theories of factor pricing and also about different market structure and various pricing techniques

Unit I

Business Economics- concept, characteristics, importance of business economics, scope. Micro & Macro Economic Analysis - Concept, Scope and application in formulation of Business Policies. Economic Problems and Functions of an Economic System. Functions of an economic system. Production Possibility Curve.

Consumer Behaviour: Utility Analysis - Cardinal Approach - Marshall's Approach, the law of diminishing marginal utility, the law of equi marginal utility. Ordinal Approach - Indifference Curve Analysis, Budget Line, Price effect, income effect and substitution effect, application of indifference curve analysis, Consumer Surplus - concept and significance.

Unit II

Demand Analysis - Concept, features, objectives, demand function, determinants of demand, types of demand, the law of demand, extension and contraction of demand, shift of demand curve. Elasticity of demand - concept, types, degree of price elasticity of demand, measurement of price elasticity of demand.

Production & Cost Analysis: factors of production, production Function: Laws of Returns, Returns to Scale, Economies and diseconomies of scale. Cost Analysis -Cost Concepts and Classification, Cost Function and determinants of Cost. Short-term and Long -term Cost Analysis. Concept of Supply, Law of Supply and Elasticity of Supply.

Unit III

Market: Classification and structure, General theory of price determination, time element in price determination, Price and output determination under Perfect and Imperfect Competition, Monopoly and Discriminating Monopoly. Oligopoly - Characteristics, Price Leadership and Kinked Demand Curve.

Factor Pricing - Marginal productivity theory of distribution; Wages – concept, kinds and modern theory; Rent-concept; Ricardian and modern theory, Quasi Rent. Interest- concept, liquidity preference theory & modern theory of interest. Profit- Concept, Risk bearing theory, Uncertainty bearing theory, Marginal Productivity theory & Innovation theory and Demand & Supply theory of Profit.

National income-Meaning, Concepts & Significance

Reference Books-

- Saraswat, Lodha, Sharma, Godha, Kiradoo, Tailor – Business Economics – Ajmera Book Company
- Jhingan M.L. –- Micro Economic Theory, Vrinda Publications.
- Agarwal M.D and Deo Som –Business economics – R.B.D. Publishing House.
- Jhingan M.L. Advanced Economic Theory, Vrinda Publication P. Ltd.

Note: Latest Edition of the book to be referred

Course Structure in Semester – II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJCOM-203	Economic Environment in India	Major	04	04	10	20	70	40/100
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Programme	SOR	01	01	-	-	25	10/25

MJCOM-203-Economic Environment in India

Max. Marks: 100 **Min. Marks: 40**
Credits: 4 **Duration: 2 ½ Hrs**

Course Outcomes: On the successful completion of course, student will be able to:

1. Assess the achievements of economic planning in India.
2. Analyze the effects of population explosion, unemployment & poverty on economic development and evaluate the role of small scale & cottage industries in developing Indian economy
3. Summarize all the factors of Foreign Trade in India

Unit I

Economic environment - Meaning, Factors affecting economic environment; Economic planning in India - Objectives, Strategies, Achievements and Failures. New Economic Policy and Reforms – with special reference to Tax reforms viz GST and Problems of Black Money. National Institution for Transforming India (NITI Aayog): organization and functions. Basic features of Indian Economy: Growth and development of Indian Economy.

Unit II

Problems of Indian Economy- Population - Characteristics, causes of growth, problems. New Population Policy and its evaluation. Problems of Unemployment, Poverty, Industrial Sickness and Regional Imbalances.

Industrial Development in India: Problems, Industrial policy of 1991 and Recent changes. Small Scale Industries: Importance, Problems and Present Position. Privatization and Disinvestment.

Agriculture: Role of Agriculture in Indian Economy, Problems and present position in India. New Agriculture Strategy and its impact. Land Reforms and Agriculture Credit. Organic Farming. eNAM Portal (e-National Agriculture Market)

Unit III

Foreign Trade in India- Meaning, volume, composition & direction, export promotion, export and import policy of the government, investment of foreign capital in India, role of multi- national corporations in the Indian economy.

Foreign exchange rate- fixed and flexible rate, Foreign Direct Investment- Meaning, advantages, limitations, Foreign Indirect Investment: meaning and its role in economic development, Foreign

Aid: meaning, types: tied and untied aid, role of foreign aid in economic development, determinant factors of foreign aid for economic development

Reference Books-

- Vashistha, Bhinda, Sharma, Lodha, Sharma – Economic Environment in India – Ajmera Book Company .
- Swami H.R. , Gupta B. P – Economic Environment in India – R.B.D Publications

Note: Latest Edition of the book to be referred

SOPHIA GIRLS' COLLEGE

(AUTONOMOUS)

AJMER

Scheme of Examination
And
SYLLABUS

BATCH 2023
FOR
Bachelor of Computer Application

Under
Choice Based Credit System (NEP)

Semester I to II

Bachelor of Computer Application

Eligibility for admission in First Year of BCA is 10+2 examination of any board with at least 50% marks. As regards admission on reserved category seats government rules will be applicable.

SCHEME OF EXAMINATION

The number of the paper and the maximum marks for each paper together, with the minimum marks required to pass are shown against each subject separately. It will be necessary for a candidate to pass in the theory as well as the practical part of a subject/paper, wherever prescribed, separately.
Classification of successful candidates shall be as follows:

First Division 60%	of the aggregate marks prescribed in Semesters I to VI taken together
Second Division 50%	

All the rest shall be declared to have passed the examination.

- For passing a candidate shall have to secure at least 40% marks in each course (Theory and Practical separately).
- No division shall be awarded in Semesters I to V.
- Whenever a candidate appears for a due paper examination, she will do so according to the syllabus in force.
- A candidate not appearing in any examination/absent in any paper of term end examination shall be considered as having DUE in those papers.

End Semester Examination Pattern

Maximum Marks: 50 **Duration: 2½ Hrs**

Section A **10 × 1 = 10 Marks**

Contains 10 Questions of 1 mark each and all are compulsory. Three questions from each unit and one extra question from any one unit

Section B **3+3+4 = 10 Marks**

Contains 3 questions with internal choice (Two questions from each unit). (2 Questions of 3 marks each and 1 Question of 4 marks) A student has to attempt 3 questions, choosing at least one question from each unit.

Section C **3 × 10 = 30 Marks**

Contains 3 questions with internal choice (Two questions from each unit). Each Question carries 10 marks. A Student has to attempt 3 questions, choosing at least one question from each unit.

End Semester Practical Examination Pattern

1. A Laboratory Exercise File should be prepared by each student for practical paper and should be submitted during practical examination.
2. Practical Marks is awarded on the basis of Written Work (Laboratory Exercise), Viva-voce & File Work.
3. Duration of practical exam is 3 hours.

FYUP CREDIT SCHEME 2023

Structure of 3 Year Undergraduate Program Based On NEP (Practical Subjects)

S. No.	Honours With Research	Multi-Disciplinary Course	Ability Enhancement Course (AEC)	Skill Enhancement Course	Value Added Course	Summer Internship/ Social Outreach	Research Project Or Dissertation	Total	
	Required Credit for Major Course (4) (Theory +Prac.)	Total Required Credit (3) (6)	Total Required Credit (2) (6)	Total Required Credit (3) (9)	Total Required Credit (2) (8)	Total Required Credit (3)	Total Required Credit 20	Credit	Marks
Sem - I	MAJOR A (3+1) MAJOR B (3+1) MAJOR C (3+1)	MDC-I (3)	AEC-104 General English	SEC-I	-	-	-	20	500
Sem - II	MAJOR A (3+1) MAJOR B (3+1) MAJOR C (3+1)	MDC-II (3)	AEC-105 General Hindi	-	VAC-I: Physical Fitness (2)	ISO - 25 (1)	-	20	500
Total	24	6	4	3	2	1		40	1000
The allocation of the 2 Majors and minor subject is strictly based on merit (Performance in Sem - I & II)									
The student requires 40 credits during the first year of the undergraduate program for qualifying for an Undergraduate Certificate								40	1000
Sem -III	MAJOR-A1 (3+1) MAJOR-A2 (3+1) MAJOR-B1 (3+1) MAJOR-B2 (3+1) **MINOR-C (3+1)**	-	-	-	VAC-III GEN-106-Env. Cons. (2)	-	-	22	550
Sem -IV	MAJOR-A1 (3+1) MAJOR-A2 (3+1) MAJOR-B1 (3+1) MAJOR-B2 (3+1) **MINOR-C (3+1)**	-	50 COMM. ENG (2)	-	-	-	-	22	550
Total	40	-	2	-	2	-		44	1100
	64	6	6	3	4	1		84	2100
The student requires 84 credits during the second year of the undergraduate program for qualifying for a Diploma									
Sem - V	MAJOR-A1 (3+1) MAJOR-A2 (3+1) /DSE - A2 MAJOR-B1 (3+1) MAJOR-B2 (3+1) /DSE - B2	-	-	SEC-V (3)	VAC-V MOOCS/ Swayam/EEA (1)	ISO -50 (2)	-	22	550
Sem - VI	MAJOR-A1 (3+1) MAJOR-A2 (3+1) /DSE - A2 MAJOR-B1 (3+1) MAJOR-B2 (3+1) /DSE - B2	-	-	SEC-VI (3)	VAC-VI Democratic awareness with legal literacy/ NSS/NCC (3)	-	-	22	550
Total	32	-	-	6	4	02	-	44	1100
	96	6	6	9	8	3		128	3200
On successful completion of three years, the relevant Undergraduate Degree shall be awarded. A Bachelor's degree requires 128 credits									

4 YEAR UNDER GRADUATE HONOURS PROGRAM									
Sem -VII	MAJOR-A1 (6) MAJOR-A2 (6) (Practical) MAJOR-A5 (6)	-	-	-	-	-	MAJOR- A3 (6) /DSE – A3 MAJOR- A4 (6)	30	500
Sem - VIII	MAJOR-A1 (6) MAJOR-A2 (6) (Practical) MAJOR-A5 (6)	-	-	-	-	-	MAJOR- A3 (6) MAJOR- A4 (6)	30	500
Total	**36**	**-**	**-**	**-**	**-**	**-**	**24**	**60**	**1000**
	132	**6**	**6**	**9**	**8**	**3**	**24**	**188**	**4200**
On the successful completion of the fourth year, a student shall be awarded an HONOURS Degree. A Bachelor's degree with Honours requires a total of 188 credits (to have an Honours Degree Major Subject should have 50% of total credits)									
4 YEAR UNDER GRADUATE HONOURS WITH RESEARCH									
Sem -VII	MAJOR-A1 (6) MAJOR-A2 (6) (Practical) MAJOR-A5 (6)	-	-	-	-	-	MAJOR- A3 (6) /DSE – A3 MAJOR- A4 Research Methodology (6)	30	500
Sem - VIII	MAJOR-A1 (6) MAJOR-A2 (6) (Practical) MAJOR-A5 (6)	-		-	- -	- -	Research Project -II (12) **OR** Dissertation - II (12)	30	500
Total	**36**	**-**	**-**	**-**	**-**	**-**	**24**	**60**	**1000**
	132	**6**	**6**	**9**	**8**	**3**	**24**	**188**	**4200**
On the successful completion of the fourth year, a student shall be awarded a Degree Honours with Research. A Bachelor's degree of Honours with Research requires a total of 188 credits									

OUTLINE FOR UNDERGRADUATE COURSES UNDER NEP

The UGC has formulated a new student-centric "Curriculum and Credit Framework for Undergraduate Programmes (CCFUP)" incorporating a flexible choice-based credit system, multidisciplinary approach, and multiple entry and exit options. This will facilities students to pursue their career path by choosing the subject/field of their interest.

The NEP 2020 undergraduate curriculum is a significant shift towards a more student-centric and flexible learning experience. It empowers students to design their own educational journeys and graduate with the knowledge and skills to thrive in the 21st century workforce.

Undergraduate degree programmes of either 3 or 4-year duration, with multiple entry and exit points and re-entry options, with appropriate certifications such as:

- A UG Certificate after completing 1year (two semesters) of study in the chosen fields of study.
- A UG Diploma after 2 years (four semesters) of study.
- A Bachelor's degree after a 3-year (six semesters) programme of study.
- A 4-year bachelor's degree (Honours) after eight semesters programme of study.
- If the student completes a rigorous research project in their major area(a) of study in the 4th year of a bachelor's degree (Honours with Research).

Course Under Choice Based Credit System (CBCS)

25. **Major Discipline:**
    a. **Discipline Specific Core Courses (DSCC):** A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core Course. Each core course carries 4 credits for non-practical course and for practical core course carries 4 credits (3 theory + 1 practical).
    b. **Discipline Specific Elective (DSE):** Choice of specific topics as per a student's need. Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective. Each core course carries 4 credits.
26. **Minor Course:** is a program that allows students to explore topics that cross traditional academic boundaries. These are designed to foster a more holistic and flexible education, encourage students to develop a broader skill set and a diverse knowledge base. Each minor course carries 4 credits.
27. **Multi-Disciplinary Course (MDC):** MDC are designed to bridge gaps between traditional academic boundaries, allowing students to explore and integrate knowledge from multiple disciplines. MDC courses offer a broad perspective and encourage creative problem-solving by exposing students to a range of subjects, 3 credits is assigned to MDC, students can select MDC in Semester 1 and 2. Student take elective courses outside their major, fostering cross-disciplinary knowledge.
28. **Ability Enhancement Core Courses (AECC) :** AECC are a category of courses designed to help students develop essential skills and knowledge that enhance their overall learning experience and personal development. It carries 2 credits each in Semester 1, 2 and 4.
29. **Skill Enhancement Course (SEC):** SEC are designed to equip students with practical skills and competencies that are relevant to the workforce and society. Skill-based education and vocational training to ensure students are employable and can contribute to economic and social needs. SEC has 3 credits each in semester 1, 5 and 6. These courses may be choosen from the SEC table as given in Semester 1, 5 and 6.
30. **Value Added Course (VAC):** VAC are designed for holistic development, encourage interdisciplinary learning, and prepare students for the demands of the modern workforce. These courses offer flexibility and can be tailored to meet emerging trends and industry needs. These courses are available in Semester 2, 3, 5 and 6. Each VAC carries 2 credits.
31. **Social Outreach / Summer Internship (SOR):** Community service involve students engaging in activities that benefit their communities, fostering a sense of social responsibility and civic

engagement. SOR carries 3 credits each in Semester 2 and 5.

32. **Project, Dissertation & Internships:** These activities play a significant role in the NEP, as they offer students practical experience, real-world exposure and the opportunity to apply their knowledge to real-world situations. These elements are designed to bridge the gap between academic learning and industry requirements, ensuring that graduates are better prepared for employment or further studies.

Program Outcome

1. **Foundation knowledge & Digital Competence**
   The student will possess a solid foundation in key computer science concepts, including programming fundamentals, algorithms, data structures, discrete mathematics, and software engineering. This knowledge will enable them to approach problems methodically and design effective solutions using appropriate techniques.

2. **Effective Communication & Logical Understanding**
   The student will be equipped with the skills to present complex technical concepts in an understandable manner, engage in discussions, and collaborate in teams, fostering interpersonal and professional communication. They will demonstrate proficiency in problem-solving, coding, and the ethical use of digital platforms, ensuring they can navigate and contribute to the ever-evolving digital landscape.
3. **Technical Proficiency & Problem Analysis**
   The student will have a strong foundation in computer science principles, including algorithms, programming languages, data structures, software engineering, and system design. They will be proficient in applying theoretical knowledge to solve practical problems in diverse domains of computing.
4. **Critical Thinking & Decision Making**
   The students will develop strong critical thinking skills, enabling them to analyze complex problems, evaluate various solutions, and make informed decisions. They will apply logical reasoning, systematic approaches, and data-driven analysis to solve real-world computing problems, ensuring optimal and efficient solutions.
5. **Ethical Development**
   The student will value lifelong learning and commit to keeping abreast of emerging technologies, ethical issues, and industry best practices. They will strive for self-improvement in both technical skills and ethical conduct, promoting an ongoing commitment to professional development and responsible computing practices.
6. **Project Management & Adaptability to Industry needs**
   The student will be capable of designing, developing, testing, and deploying software solutions that meet user requirements and industry standards.
   They will stay current with rapidly evolving technology trends and be capable of adapting to new tools, platforms, and programming languages. They will be prepared to continuously update their skill sets, ensuring they remain competitive and capable in the dynamic field of information technology.

Course Structure in Semester – I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJBCA-101	Computer Fundamentals and PC Software	Major	03	03	5	20	50	30/75
MJBCA-102	'C ' Programming	Major	03	03	5	20	50	30/75
MJBCA-103	Multimedia	Major	03	03	5	20	50	30/75
MJBCA-104	Practical: PC Software	Major	02	01	-	-	25	10/25
MJBCA-105	Practical: 'C' Programming	Major	02	01	-	-	25	10/25
MJBCA-106	Practical: Multimedia (Flash)	Major	02	01	-	-	25	10/25
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJBCA – 101 Computer Fundamentals and PC Software

Max. Marks : 75 **Min. Marks: 30**
Credits: 03 **Duration: 2½ hrs**

Learning Outcome: On successful completion of the course, the students will be able to :–

1. Describe computer systems, their types and the uses of various input devices
2. Categorize different output devices on the basis of operation and study different tools of Microsoft Word by hands on practice
3. Develop charts and validation on the data Apply various functions on the excel sheet and Design effective presentation by implementing different formatting styles.

Unit – I

Introduction to Computer: Definition, Diagram, Characteristics, Classification of Computers: Analog Computers, Digital Computers, Hybrid Computers, Classifications of computer on the basis of size and speed, different type of computers, Indian Super Computer, Applications of Computers

Input Devices: keyboard, mouse, touch pad, touch screens, data scanning devices, optical recognition systems: bar code readers, optical mark readers, Optical character reader. Digital camera

Unit – II

Output Devices: Hard copy devices: Printer (impact printers), dot matrix printer, line printer, (non-impact printers), inkjet, laser printer, 3D printer, barcode printers. Soft copy devices: (Computer Display) CRT, Flat Panel Display: LCD, plasma display panel.

Introduction to memory: classifications, volatile memory, non-volatile memory

Software: System software, application software, programming software.

MS-Word: Introduction to MS-Word, Features, Application Areas and its uses, types of views, Creating &Saving : New Document, copy, cut, paste, paste special, clipboard, undo, redo, Fonts, Paragraphs: Indentation and Spacing, Columns & Breaks, Styles, Find, Replace & Goto. Inserting Tables, Picture, ClipArt, Shapes, Smart Art and Charts, Symbols and Equations, Hyperlink, Bookmark. Header & Footer. Drop Cap, Textbox, WordArt, Date and Time. Table of contents, Footnotes and Endnotes, Page background. Mail merge, Macros, Auto correct and Auto Text. Comments, Page Setup, Size, Margins, Gutter, Orientation.

UNIT-III

MS-Excel: MS-Excel: Introduction, Features, Application Areas and its uses, views and its types, formatting and its types. **Charts**: Line, bar, column, area, pie. Pivot Tables, Data management (Sort, filters, Validation, consolidation, Text to column), auditing and tracing.
Functions and Formulas -Text: char, concatenate exact, find, left, right, mid, lower, upper, proper, search, substitute, trim. **Logical:** and, or, not **Math and trig:** abs, int, even, odd, fact, mod, pi, power, product, round, roman, sign, sqrt, trim. **Statistical:** Average, count. Protecting sheet and workbook.

MS-PowerPoint: Introduction to PowerPoint, Features, Application Areas and its uses, Creating Presentations through Blank Presentations, Templates, Slide Master, Views of PowerPoint, Formatting of Presentations: Inserting Graphics and Animations, Formatting & Customizing Presentations: Slide Transactions, Custom Animation, Inserting sounds. Set up and Custom Slide Show, Handouts.

Reference Books:

- Pradeep K. Sinha, Priti Sinha, "Computer Fundamentals". BPB Publications.
- Rajaraman, V., "Fundamental of Computers". Prentice Hall India, New Delhi.
- Fundamentals Of Information Technology, 2E , Alexis Leon & Mathews Leon, Vikas Publishing
- Microsoft Office 2007 – Joyce Cox & Joan Preppernau – PHI Publication

MJBCA – 102 'C' Programming

Max. Marks : 75 **Min. Marks: 30**
Credits: 03 **Duration: 2½ hrs**

Learning Outcome: On successful completion of the course, the students will be able to :–

1. Understand the fundamental concepts of the C programming language, proficient in using input/output instructions, operators and looping
2. Demonstrate proficiency in working with arrays in C and understanding of function mechanisms.
3. Gain proficiency in working with pointers and arrays, structures and union.

Unit - I

'C' Language: Character Set, Keywords, Constants, Variables, Data Types, Type Conversion.
Instruction & its types: Input Output Instructions, Operators & Expressions: Arithmetic, Relational, Logical, Conditional , Arithmetic Instructions.
Control Instructions: Decision Control (if, if-else, if else ladder, nested if, switch case),
Loop Control (while, for, do-while, Nesting Loops), Jump statements (break, continue, goto)

Unit – II

Arrays:- Concept of Arrays, One dimensional array & Two dimensional array, Storage strategy, Array Initialization, Operations on Arrays (traversing, addition, subtraction, transpose), Search – linear & binary. Sorting - bubble sort & selection sort.
Functions:- Declaration, Calling (Call by value, Call by reference) & Definition of functions, Recursion, Storage Class (auto, static, register, extern), Scope rules (Local, Global).

Unit – III

Pointers:- Pointers and addresses, Pointers as Function arguments, Pointers and Arrays, Address Arithmetic. Character Pointers, String handling and String functions (strlen, strcat, strcmp, strcmpi, strrev, strcpy).
Structure and Union: Basics, Structures and Functions, Arrays of Structures, structure pointer variables. Union definition and its use.

Reference Books:

- Let Us 'C' -Yashavant P Kanetkar, BPB Publications
- Programming in Ansi 'C' – Balaguruswami – TMH.
- 'C' Programming Language – Kernighan & Ritchie - PHI

- 'C' How to Program – Dietel & Dietel - PHI
- 'C' Programming - Dr. Neeraj Bhargava & Dr. Ritu Bhargava, Alka Publications

MJBCA – 103: Multimedia

Max. Marks : 75 **Min. Marks: 30**
Credits: 03 **Duration: 2½ hrs**

Learning Outcome: On successful completion of the course, the students will be able to:–

1. Identify terminology associated with the concepts, techniques, and processes used throughout the multimedia environment.
2. Compare different image types and compression
3. Study laws of multimedia and design environment and design basic animations and gif images using flash

Unit – I

Introduction to Multimedia Technology – Application areas of Multimedia, Advantages and disadvantages of Multimedia, Media Elements d(text, sound, image, video & animation), user interface and its types, importance and features of user interface, MM hardware & software requirements(Image , Video, Audio, Sound editing software's), Images: Raster and Vector image

Unit – II

Image compression: Lossy and Lossless Compression, advantages and disadvantages of image compression, audio compression, audio synthesis, speech recognition and Speech Synthesis, Jpeg image compression, mpeg video compression(P,B, I frames).

Developing Applications using multimedia, methodology and design, Various multimedia laws: Patent law, Trademark Law, Trade secret Law, Copyright Law.

Unit – III

Flash: Introduction, Features , Advantages ,Concepts of Frame Rate and Resolution, Exploring The Flash Interface ,The Flash stage ,Timeline- Play head/Frames/Key Frames/ Blank frames ,Menus, Tools of Flash (Pen, Pencil, Paint Bucket Tool, spray brush ,Text, 3D rotation, deco tool), Custom colors and gradients ,Drawing object in flash (line, curve, oval, Rectangle , Polystar tool) , stroke and fill, Layers and its types in flash, Key frames, symbols-how to create and reuse it, Object based animation, motion tween, classic tween and shape tween, adding sound.

Reference Books

- Fundamental of multimedia ,Ritu Bhargava, Alka Publications
- Fundamental of multimedia "Drew, Feurun, 2004.
- Adobe Flash CS4: Illustrated Barbara M. Waxer

Course Structure in Semester – II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJBCA-201	Data Structure & Algorithm	Major	03	03	5	20	50	30/75
MjBCA-202	E- Commerce	Major	03	03	03	5	20	50
MJBCA-203	Discrete Mathematics	Major	03	03	03	5	20	50
MJBCA-204	Practical: Data Structure through 'C'	Major	02	01	-	-	25	10/25
MJBCA-205	Practical: HTML	Major	02	01	-	-	25	10/25
MJBCA-206	Practical: Discrete Mathematics	Major	02	01	-	-	25	10/25

AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Programme	SOR	01	01	-	-	25	10/25

MJBCA – 201 : Data Structure & Algorithm

Max. Marks : 75 **Min. Marks: 30**
Credits: 03 **Duration: 2½ hrs**

Learning Outcome: On successful completion of the course, the students will be able to:
1. Understand the basic principles of data structures and the operations performed on arrays.
2. Apply suitable searching and sorting algorithms to manipulate and organize given data structures.
3. Design and implement stack and queue data structures for efficient data management.

Unit I

Data Structures and its Types: Primitive and Composite Data Types

Arrays: - Concept of Arrays, Single dimensional array, Two dimensional array. Operations on Arrays with Algorithms (Insertion, deletion).

Searching :(Linear and Binary), Concept of sorting, Sorting algorithms (Bubble Sort, Insertion Sort, Selection Sort). **Recursion:** Factorial, Fibonacci, Tower of Hanoi.

Unit II

Linked Lists:- Introduction to linked list and double linked list, Representation of linked lists in Memory, Traversing a linked list, Searching linked list, Insertion and deletion into linked list, Doubly linked lists, Traversing a doubly linked lists.

Stacks and Queues: Representation of stacks, Implementation of stacks using Array & Link List, Uses of stacks, evaluating expression.

Introduction to queues, Implementation of queues by using array and Link lists

Unit III

Trees: Definition & Basic concepts, linked tree representation, Introduction to Binary Tree, Traversing Binary Trees (Pre order, Post order and In-order), Concept of Binary search tree, algorithm of Searching, inserting and deleting in binary search trees.

Graph: Introduction to graphs, types of graphs (complete, weak and strong, simple), Representation of Graph: adjacency Matrix, Graph Traversal: Breadth first search, Depth first search.

Reference Books:

- Data Structure Through C - Y.P. Kanetkar – BPB Publication
- Data Structure Using C - E Balagurusamy – McGraw Hill
- Data Structures And Algorithm Analysis In C – Mark Allen Weiss – Pearson Education

MJBCA–202 : E-Commerce

Max. Marks : 75 **Min. Marks: 30**
Credits: 03 **Duration: 2½ hrs**

Learning Outcome: On successful completion of the course, the students will be able to
1. Define E-commerce and its impact in different areas. Understand different Business Models
2. Handle electronic transactions in secure way

3. Applying various tags to create HTML web pages, including formatting text, adding images, creating links, constructing tables and various style sheets.

Unit – I

E-Commerce -Introduction, Advantage, Disadvantages, Traditional commerce Vs. E-Commerce, Partial Vs Pure E-commerce. Impact of E-Commerce in different areas, the anatomy of E-commerce,

EDI: Introduction, Types of EDI, EDI Security and Privacy Issues, Application of EDI in business, Electronic-Catalogs, Digital Libraries. Framework of E-commerce, Business Models based on the relationship of Transaction Parties Business-to-Business (B2B), Business-to-Consumer (B2C), Consumer-to-Consumer (C2C), Consumer-to-Business (C2B), Business-to-Government (B2G), Government-to-Business (G2B), Government - to - Citizen (G2C),Intra- Business Organizational.

Unit – II

What is E-Governance: Objectives, Benefits, Developmental stages of E-Governance, Prerequisites for E-Governance, E-Governance models.

Business Models based on the relationship of Transaction types: Brokerage model, Aggregator and Advertising model. **Electronic Payment Systems:** Introduction, Features, Types (E-Cash, E-cheque, credit card, Smart Card, Electronic Purses), Electronic Payments and Protocols E-Customer Relationship Management, Security Threats (Active, Malicious, Server Side).

Ethical, Social, and Political issues in E-commerce: Understanding ethical, social, and political issues in E-commerce, Privacy and information rights, Intellectual property rights, Governance, Public safety and welfare.

Unit – III

Introduction of HTML: introduction, markup language, editing common tags, headers, text styles, working with links: creating a hyperlink, selecting hyperlink color, linking different sections of the webpage, formatting text, horizontal rules and more line breaks, unordered lists, nested and ordered lists.

Working with images: Inserting an image, adding border to image, aligning an image, using image as hyperlink. **Working with tables:** creating table, specifying caption to a table, setting width of table and table columns, setting cell spacing and padding, spanning rows and columns, image maps.

Basic HTML forms, working with frames: creating vertical and horizontal frames, applying hyperlink targets to a frame.

Cascading style sheets: inline, internal and external style sheets.

Reference Books:-

1. The Complete E Commerce Book − Janice Reynolds − CRC Press
2. E Commerce A Beginners Guide - Daniel D'Apollonio− Google Books
3. HTML Black Book − Steven Holzner−DreamTech

MJBCA–203 : Discrete Mathematics

Max. Marks : 75 **Min. Marks: 30**
Credits: 03 **Duration: 2½ hrs**

Learning Outcome: On successful completion of the course, the students will be able to:

1. Apply set operations to solve applied problems
2. Examine the validity of argument by using Propositional Calculus
3. Understand different graphs and matrix operations

Unit I

Basic terminology of Graph Theory –Vertices, Edges, Loop, Path, degree**, Types-** Undirected- Directed, weighted-Un-weighted, Simple-Multigraph, Labelled, Null, Di-graph, Subgraph, Connected-

disconnected, Cyclic-Acyclic, Dijkstra's shortest path algorithm, Minimum Cost spanning Tree Algorithm (Prim's and Kruskal's).

Sets: Elements of a set, methods of describing a set, types of sets, Operations on sets-- union, intersection and difference of sets, Associative Laws, Distributive laws, De Morgan's laws (proofs) Venn Diagrams, Cartesian product of two sets.

Unit II

Relation: Basic definition of relation and types of relations (reflexive, irreflexive, symmetric, A-symmetric, transitive, anti symmetric, equivalence), Binary relations, domain, range, inverse and composite.

Language of Logic: Proposition, Compound Proposition, Conjunction, Disjunction, Implication, Converse, Inverse & Contra positive, Biconditional Statements, tautology, Contradiction & Contingency, Logical Equivalences, Universal and existential quantifiers .

Unit III

Matrices: Definition of a matrix, types of matrices, Basic operations(Addition, subtraction and Multiplication), Transpose, Determinant of a square Matrix, Minor and Co-factors , Adjoint of a square Matrix, Inverse of a matrix, Solution to System of Linear equations- Matrix Inverse method and Cramer's method.

Reference Books:

- Keneth H. Rosen, "Discrete Mathematics and Its Applications", TMH
- C.L. Liu, "Elements of Discrete Mathematics", TMH.
- Kolman, Busby & Ross, "Discrete Mathematical Structures", PHI.
- Narsingh Deo, "Graph Theory With Application to Engineering and Computer Science", PHI.

SOPHIA GIRLS' COLLEGE,
(AUTONOMOUS)
AJMER

Scheme of Examination
And
SYLLABUS
BATCH 2023

FOR

Four-Year Under Graduate Honours Program
BACHELOR OF BUSINESS ADMINISTRATION

Semester – I to II

BACHELOR OF BUSINESS ADMINISTRATION

Eligibility for admission in First Year of BBA is 10+2 examination of any board with at least 50% marks. With regard to admission in reserved category seats, government rules will be applicable.

SCHEME OF EXAMINATION

The number of the paper and the maximum marks for each paper together, with the minimum marks required to pass are shown against each subject separately. It will be necessary for a candidate to pass in the theory as well as the practical part of a subject/paper, wherever prescribed, separately.
Classification of successful candidates shall be as follows:

First Division 60%	of the aggregate marks prescribed in Semesters I to VI taken together
Second Division 50%	

All the rest shall be declared to have passed the examination.

- For passing a candidate shall have to secure at least 40% marks in each course (Theory and Practical separately).
- No division shall be awarded in Semesters I to V.
- Whenever a candidate appears for a due paper examination, she will do so according to the syllabus in force.
- A candidate not appearing in any examination/absent in any paper of term end examination shall be considered as having DUE in those papers.

End Semester Examination Pattern

Maximum Marks: 70 **Duration: 2½ Hrs**

Section A **10 × 1 = 10 Marks**

Contains 10 Questions of 1 mark each and all are compulsory. Three questions from each unit and one extra question from any one unit

Section B **5+5+5 = 15 Marks**

Contains 3 questions with internal choice (Two questions from each unit). A student has to attempt 3 questions, choosing at least one question from each unit.

Section C **15 × 3 = 45 Marks**

Contains 3 questions with internal choice (Two questions from each unit). Each Question carries 15 marks. A Student has to attempt 3 questions, choosing at least one question from each unit.

FYUP CREDIT SCHEME 2023

STRUCTURE OF 3 YEAR UNDERGRADUATE PROGRAM BASED ON NEP (NON- PRACTICAL SUBJECTS)

SEM	Honours With Research	Multi-Disciplinary Course	Ability Enhancement Course (AEC)	Skill Enhancement Course	Value Added Course	Summer Internship/ Social Outreach	Research Project OR Dissertation	Total	
	Required Credit for Major Course (4)	Total Required Credit (3) (6)	Total Required Credit (2) (6)	Total Required Credit (3) (9)	Total Required Credit (2) (8)	Total Required Credit (3)	Total Required Credit 20	Credit	Marks
Sem-I	MAJOR A (4) MAJOR B (4) MAJOR C (4)	MDC-I (3)	AEC-104 General English	SEC-I	-	-	-	20	500
Sem-II	MAJOR A (4) MAJOR B (4) MAJOR C (4)	MDC-II (3)	AEC-105 General Hindi	-	VAC-I Physical Fitness	ISO – 25 (1)	-	20	500
Total	**24**	**6**	**4**	**3**	**2**	**1**		**40**	**1000**
The allocation of the 2 Majors and minor subject is strictly based on merit (Performance in Sem - I & II)									
The student requires 40 credits during the first year of the undergraduate program for qualifying for an Undergraduate Certificate								**40**	1000
Sem-III	MAJOR-A1(4) MAJOR-A2(4) MAJOR-B1(4) MAJOR-B2(4) MINOR-C(4)	-	-	-	VAC-III GEN-106-Env. Cons. (2)	-	-	22	550
Sem-IV	MAJOR-A1(4) MAJOR-A2(4) MAJOR-B1(4) MAJOR-B2(4) MINOR-C (4)	-	50 COMM. ENG (2)	-	-	-	-	22	550
Total	**40**	**-**	**2**	**-**	**2**	**-**		**44**	**1100**
	64	**6**	**6**	**3**	**4**	**1**		**84**	**2100**
The student requires 84 credits during the second year of the undergraduate program for qualifying for a Diploma									
Sem-V	MAJOR-A1(4) MAJOR-A2(4) /DSE-A2 MAJOR-B1(4) MAJOR-B2(4) /DSE-B2	-	-	**SEC-V (3)**	VAC-V Moocs/ swayam/ EEA(1)	ISO - 50 (2)	-	22	550
Sem-VI	MAJOR-A1(4) MAJOR-A2(4) /DSE-A2 MAJOR-B1(4) MAJOR-B2(4) /DSE-B2	-	-	**SEC-VI (3)**	VAC-VI Democratic awareness with legal literacy/ NSS/NCC(3)	-	-	22	550

Total	**32**	**-**	**-**	**6**	**4**	**02**	**-**	**44**	**1100**
	96	**6**	**6**	**9**	**8**	**3**		**128**	**3200**
On successful completion of three years, the relevant Undergraduate Degree shall be awarded. A Bachelor's degree requires 128 credits									
4 YEAR UNDER GRADUATE HONOURS PROGRAM									
Sem-VII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	-	-	MAJOR-A3 (6) /DSE-A3 MAJOR-A4 (6)	24	400
Sem-VIII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	-	-	MAJOR-A3 (6) MAJOR-A4 (6)	24	400
To tal	**24**	**-**	**-**	**-**	**-**	**-**	**24**	**48**	**800**
	120	**6**	**6**	**9**	**8**	**3**	**24**	**176**	**4000**
On the successful completion of the fourth year, a student shall be awarded an HONOURS Degree. A Bachelor's degree with Honours requires a total of 176 credits (to have an Honours Degree Major Subject should have 50% of total credits)									
4 YEAR UNDER GRADUATE HONOURS WITH RESEARCH									
Sem-VII	MAJOR-A1(6) MAJOR-A2(6)	-	-	-	- -		MAJOR-A3 (6) /DSE-A3 MAJOR-A4 Research Methodology (6)	24	400
Sem-VIII	MAJOR-A1(6) MAJOR-A2(6)	-		-	- -	- -	Research Project-II(12) **OR** Dissertation-II (12)	24	400
Total	**24**	**-**	**-**	**-**	**-**	**-**	**24**	**48**	**800**
	120	**6**	**6**	**9**	**8**	**3**	**24**	**176**	**4000**
On the successful completion of the fourth year, a student shall be awarded a Degree Honours with Research. A Bachelor's degree of Honours with Research requires a total of 176 credits									

OUTLINE FOR UNDERGRADUATE COURSES UNDER NEP

The UGC has formulated a new student-centric "Curriculum and Credit Framework for Undergraduate Programmes (CCFUP)" incorporating a flexible choice-based credit system, multidisciplinary approach, and multiple entry and exit options. This will facilities students to pursue their career path by choosing the subject/field of their interest.

The NEP 2020 undergraduate curriculum is a significant shift towards a more student-centric and flexible learning experience. It empowers students to design their own educational journeys and graduate with the knowledge and skills to thrive in the 21st century workforce.

Undergraduate degree programmes of either 3 or 4-year duration, with multiple entry and exit points and re-entry options, with appropriate certifications such as:

- A UG Certificate after completing 1year (two semesters) of study in the chosen fields of study.
- A UG Diploma after 2 years (four semesters) of study.
- A Bachelor's degree after a 3-year (six semesters) programme of study.
- A 4-year bachelor's degree (Honours) after eight semesters programme of study.
- If the student completes a rigorous research project in their major area(a) of study in the 4th year of a bachelor's degree (Honours with Research).

Course Under Choice Based Credit System (CBCS)

33. **Major Discipline:**
    a. **Discipline Specific Core Courses (DSCC):** A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core Course. Each core course carries 4 credits for non-practical course and for practical core course carries 4 credits (3 theory + 1 practical).
    b. **Discipline Specific Elective (DSE):** Choice of specific topics as per a student's need. Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective. Each core course carries 4 credits.
34. **Minor Course:** is a program that allows students to explore topics that cross traditional academic boundaries. These are designed to foster a more holistic and flexible education, encourage students to develop a broader skill set and a diverse knowledge base. Each minor course carries 4 credits.
35. **Multi-Disciplinary Course (MDC):** MDC are designed to bridge gaps between traditional academic boundaries, allowing students to explore and integrate knowledge from multiple disciplines. MDC courses offer a broad perspective and encourage creative problem-solving by exposing students to a range of subjects, 3 credits is assigned to MDC, students can select MDC in Semester 1 and 2. Student take elective courses outside their major, fostering cross-disciplinary knowledge.
36. **Ability Enhancement Core Courses (AECC) :** AECC are a category of courses designed to help students develop essential skills and knowledge that enhance their overall learning experience and personal development. It carries 2 credits each in Semester 1, 2 and 4.
37. **Skill Enhancement Course (SEC):** SEC are designed to equip students with practical skills and competencies that are relevant to the workforce and society. Skill-based education and vocational training to ensure students are employable and can contribute to economic and social needs. SEC has 3 credits each in semester 1, 5 and 6. These courses may be choosen from the SEC table as given in Semester 1, 5 and 6.
38. **Value Added Course (VAC):** VAC are designed for holistic development, encourage

interdisciplinary learning, and prepare students for the demands of the modern workforce. These courses offer flexibility and can be tailored to meet emerging trends and industry needs. These courses are available in Semester 2, 3, 5 and 6. Each VAC carries 2 credits.

39. **Social Outreach / Summer Internship (SOR):** Community service involve students engaging in activities that benefit their communities, fostering a sense of social responsibility and civic engagement. SOR carries 3 credits each in Semester 2 and 5.
40. **Project, Dissertation & Internships:** These activities play a significant role in the NEP, as they offer students practical experience, real-world exposure and the opportunity to apply their knowledge to real-world situations. These elements are designed to bridge the gap between academic learning and industry requirements, ensuring that graduates are better prepared for employment or further studies.

Program Outcomes

Program outcomes for a Bachelor of Business Administration (B.B.A.) program, designed to align with the guidelines of the National Assessment and Accreditation Council (NAAC) and the National Education Policy (NEP) 2020 in India:

1. **Enhancement of Knowledge of Business Management and Accounts:** Empowers students with a deep understanding of core Business Management principles and accounting practices.
2. **Entrepreneurship and Ethical Leadership:** Students will be able to develop and assess business plans, identify market opportunities and mitigate risks associated and will be able to recognize and address ethical issues in business.
3. **Communication and Interpersonal Skills:** Students will be able to effectively communicate business concepts and ideas, both orally and in writing, to diverse audiences, fostering collaboration and teamwork.
4. **Functional Management:** Provides students with a comprehensive understanding of core business functions and their interdependencies.
5. **Business Environment and Legal Awareness:** Equip students with comprehensive knowledge of the external and legal frameworks that influence businesses. This program fosters an understanding of economic, legal and regulatory dynamics, ensuring compliance and ethical practices in organizations.
6. **Research Skills:** Students will be able to conduct independent research projects, including literature review, data collection, analysis, and presentation of findings.

Course Structure in Semester– I

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJBBA-101	Basics of Accounting	Major	04	04	10	20	50	40/100
MJBBA-102	Principles of Business Management	Major	04	04	10	20	50	40/100
MJBBA-103	Business Ethics & Sustainability	Major	04	04	10	20	50	40/100
AEC	General English	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 1.1	MDC	03	03	5	20	50	30/75
SEC	Select SEC From Table 1.2	SEC	03	03	5	20	50	30/75

MJBBA-101: Basics of Accounting

Max. Marks: 100 **Min. Marks:40**
Credits: 4 **Duration: 2½Hrs**

Course Outcomes: On successful completion of the course the students will be able to: -

1. Understand and apply the basic concepts of accounting.
2. Identify different types of errors in accounting and prepare the final accounts of a business.
3. Demonstrate proficiency in computerised financial accounting.

Note: Please make a 60:40 distributions in numerical: theory questions.

Unit – I

Meaning and scope of Accounting; Need, development and definition of accounting, Bookkeeping and accounting, Objectives of Accounting, Accounting Transactions.
Accounting Concepts & Conventions.
Journal, Ledger, Trial Balance.

Unit- II

Rectification of Errors: Types, Rectification of error traced before preparation of Trial Balance and after preparation of Trial Balance.
Final accounts: Trading Account, Profit and Loss Account, Balance Sheet, Adjustment Entries.

Unit- III

Depreciation Accounting: Meaning, Objective, Causes. Methods of Depreciation- Straight Line Method, WDV Method, Sinking Fund Method and Annuity Method. Change in method of Depreciation from Straight Line to WDV and WDV to straight Line with retrospective and without retrospective.
Computerized Financial Accounting: Meaning, Need, Importance, Objective, Basic concepts, Fundamentals of Tally, Features of Tally.
Reference Books:

- Hanif, M., Mukherjee A., Modern Accountancy-Part I, , Tata McGraw Hill.
- Jain, Khandelwal, Pareek, Fundamentals of Accountancy Part-I, , Ajmera Book Co.
- Gupta Vikas Business Accounting & Tally ERP9 DEOTECH.
- Kumar V Mishra, Tally with GST, T. Balaji, New Delhi.
- Note: Latest edition of books to be referred.

MJBBA-102: Principles of Business Management

Max. Marks: 100 **Min. Marks:40**

Credits:4 **Duration: 2 ½ Hrs**

Course Outcome: On successful completion of the course the students will be able to: -

1. Interpret the concept of management, decision-making & MBO.
2. Analyse organisation structure, authority & responsibility relationships.
3. Collaborate the various concepts of Office Management with Management.

Unit- I

Introduction: concept, nature, process and significance of management; Principles of Management, Development of management thought

Planning: concept, process, types, Essentials of effective planning. Decision making-concept, Types and process; Management by Objectives.

Unit- II

Organization: concept, nature, process and significance, Authority- Meaning, Types, Sources, Characteristics; Responsibility & Accountability-Meaning & Characteristics, Centralization and decentralization with their respective meaning, advantages & disadvantages,

Delegation of Authority- Meaning, Importance, Limitations & Essentials to make effective delegation. Organization structure-forms.

Managerial control- concept and Process; Effective control system; Techniques of control - Traditional and modern.

Unit- III

Office management: objectives, responsibility for office work, selection of office site, layout. Organizing and method, office machinery and equipments, the future offices.

Electronic data interchange- concept, objectives and importance.

Reference Books:

- Naulakha R.L, Principles of Management RBD Publications
- Sudha G.S, Management, Ramesh Book Depot
- Rajpurohit, Sharma, Sharma, Gupta, Management Ajmer a Book Company, Jaipur.

Note: Latest edition of books to be referred

MJBBA-103: Business Ethics and Sustainability

Max. Marks: 100 **Min.Marks:40**

Credits:4 **Duration:2½ Hrs**

Learning Outcome: On successful completion of the course, the student will be able to:

1. Explore the relationship between ethics and business and the relationship between ethics, morals and values in the workplace.
2. Analyze and understand various ethical principles to explain how they contribute to current management practices.
3. Evaluate the significance of corporate governance in India

Unit-I

Business Ethics: Meaning, Features, Objectives, Importance, Factors influencing business ethics, Relation between Ethics and Business Management.

Moral & Values: Meaning, Types of values, Sources of ethics, Values for Indian Managers, Workplace Ethics, Religion & Ethics, Moral and Ethics.

Ethics in Management- Vision, Mission, Corporate Culture. Role of Board of directors, Code of Ethics, Code of Conduct, Ethics Committee, Concept of Whistle Blower, Ethics Audit.

Unit-II

Ethics in Functional and Operational Management- Ethics in Marketing, Finance, HRM, Operations and Technology, IT, E-Commerce and BPO, Accountancy.
Corporate Social Responsibility- Meaning, Benefits, Arguments for and against CSR, Responsibilities towards the Stakeholders, Latest initiatives by corporates.

Unit- III

Ethical Decision Making- Meaning and Process, Ethical values and Dilemmas, **Corporate Governance-** Meaning, features of good corporate governance, Factors influencing corporate governance, Corporate governance in India, Environmental Concerns and Corporations. **KYOSEI** Technique**, Triple Bottom Line (TBL).**

Reference Books:

- K Aswathappa, J Usha Rani, Sunanda GundaVajhala; Himalayala Publishing house; First edition 2017.
- Business Ethics and Corporate Governance: Dr. S S Khanka; S Chand and Company Pvt Ltd; First edition 2014
- Albuquerque Daniel (2013): Business Ethics, Principles and Practices, Oxford university press, New Delhi
- Murthy C.V (2016), Business ethics, Himalaya Publishing House, Mumbai
- Velasquaz G Manual (2016), Business Ethics, Dorling Kindersley Pvt. Ltd.
- Business ethics and corporate governance, B.N.Ghosh

Note: Latest edition of books to be referred

Course Structure in Semester– II

Paper Code	Nomenclature of the Paper	Paper Type	Contact Hrs Per Week	Credits	CP	CIA	ESE	Min/ Max
MJBBA-201	Organisation Behaviour	Major	04	04	10	20	50	40/100
MJBBA-202	Business Statistics	Major	04	04	10	20	50	40/100
MJBBA-203	Fundamentals of Entrepreneurship	Major	04	04	10	20	50	40/100
AEC	General Hindi	AEC	02	02	-	15	35	20/50
MDC	Select MDC From Table 2.1	MDC	03	03	5	20	50	30/75
VAC	Physical Fitness	VAC	02	02	-	15	35	20/50
SOR	Social Outreach Programme	SOR	01	01	-	-	25	10/25

MJBBA-201: Organization Behaviour

Max. Marks: 100 **Min. Marks: 40**
Credits:4 **Duration: 2½ Hrs**

Course Outcomes: On successful completion of the course the students will be able to: -

1. Interpret the concepts of Personality, Perception and Attitude.
2. Appraise group behaviour, group decision making, leadership theories.
3. Assess the concepts of conflict management and motivation.

Unit-I

Understanding and managing Individual behaviour- Personality: concept, theories, determinants of personality, personality development, personality traits affecting behaviour, personality traits of Indian managers, Personality measurement, organizational applications of personality.

Perception: Concept, Importance, process, perceptual selectivity, perceptual organization, Interpersonal perception, factors in perceiver, factors in person perceived, situational factors, developing perceptual skills. Attitudes: concept, attitudes and behaviour, factors in attitude formation, attitudes relevant for organizational behaviour, attitude change (methods, developing positive attitudes)

Unit-II

Foundation of Group Behaviour: Concept, elements of groups, external conditions, group member resources, group formation and development

–Four stage model, five stage model, punctuated equilibrium model, dimensions of group behaviour.

Group decision making: concept, importance, positive and negative aspects, methods.

Leadership: concept, theories- Trait theory, behavioural theory, situational theory, leadership styles based on behavioural approach.

Unit-III

Motivation: concept, features, motivation & behaviour, motivation & performance, theories of motivation- Maslow's need hierarchy, Herzberg's two factor theory, Vroom's expectancy theory, Equity theory, Carrot & stick approach, McGregor's theory 'X'&'Y', Theory Z, Porter –Lawler model of motivation.

Conflict management: concept, nature, types, stages and levels, causes of organizational conflict, process, or model of conflict, approaches, process and methods of conflict management.

Reference Books:

- K. Aswathappa Organizational Behaviour Himalaya Publishing House.
- Subba Rao P., Organizational behavior, Himalaya Publishing House
- Sudha G.S., Organisational Behaviour, Malik & Company.

Note: Latest edition of books to be referred

MJBBA-202: Business Statistics

Max. Marks: 100 **Min. Marks: 40**
Credits:4 **Duration: 2½Hrs**

Learning outcome: On successful completion of the course the students will be able to: -

1. Develop the skill to collect, present, classify data and analyse it using measures of central tendency and dispersion
2. Interpret the degrees of correlation & construct the regression lines
3. Illustrate the concept and computation of index numbers, time series and probability.

Unit-I

Introduction to statistics: Definition, function of statistics, scope and importance of statistics, limitations and distrust of statistics, types of statistical methods, Data collection and Analysis, Types of data - primary and secondary, methods of data collection, classification of data.

Measures of central tendency: Meaning and definition, types of average, Median, Mode (excluding Graphical method), Arithmetic mean. Measures of Dispersion-Range, Quartile Deviation, Mean deviation and Standard Deviation. (Excluding Graphical method)

Unit- II

Measures of correlation: Meaning and definition of correlation, uses of correlation, types of correlation, methods of Correlation- Karl Pearson, Rank Correlation, Probable error, coefficient of Determination and Non-determination.

Regression Analysis: Meaning, definition of regression, difference between correlation and regression. Linear Regression, Methods of constructing Regression Lines.

Unit- III

Index Number: Meaning, types, characteristics and uses, Methods of constructing of price and quantity indices (simple and aggregate), Test of adequacy; chain base index number, Consumer price Index, problems in constructing index numbers. Analysis of Time series; Causes of variations in time series data; components of a time series: Decomposition-Additive and multiplicative models; Determination of trend-Moving averages method and method of least squares, Computation of seasonal indices by simple averages, ratio to trend, ratio to moving averages and link relative methods.

Theory of Probability - Concept, Theorems of Probability - Addition & Multiplication, Conditional Probability, Bayes' Theorem, Mathematical Expectation Value

Reference Books:

- Oswal, Agrawal, Saraswal Paldecha, Agrawal - Statistics Ramesh Books Depot publications, Jaipur.
- Ranga, Gupta, Goyal, Bhatnagar, Soni; - Business Statistics & Statistical Methods; Ajmera Book Co., Jaipur.
- Dr. Agarwal Business Statistics; Vrinda Publications (P)Ltd.
- Hooda, R.P.: Statistics for business and economics - Macmillan, New Delhi
- Lewin and Rubin: Statistics for management; - Prentice-Hall of India, New Delhi

Note: Latest edition of books to be referred

MJBBA-203: Fundamentals of Entrepreneurship

Max. Marks: 100 **Min. Marks: 40**
Credits:4 **Duration: 2½ Hrs**

Learning outcome: On successful completion of the course the students will be able to: -

1. Understand the concept of entrepreneurship
2. Identify the opportunities for business and develop a business plan.
3. Analyse financing and managing the new ventures and evaluate the benefit of women entrepreneurship.

Unit I

Entrepreneur- Definition, Functions, Qualities, Types and Benefits of becoming an entrepreneur
Entrepreneurship- Meaning, Factors motivating entrepreneurship, Types.
Qualities/Traits of Entrepreneur
Role of an Entrepreneur in socio-economic development.

Unit II

Forms of Ownership – Sole Proprietorship, Joint Hindu Family, Partnership, Limited Liability Partnership, Joint Stock Company, Co-operative Society -Meaning and Features.

Creating and Starting the Venture - Identifying and evaluating business opportunities, Risk taking; Decision making process.
Business planning – Meaning, Characteristics, Need, Importance and Process to make a business plan.
Legal requirements for establishing a new unit and documentation needed.

Unit III

Financing and managing the new venture – Sources of Venture capital, Record keeping, Recruitment, Motivating and Leading teams, Marketing and sales controls - Meaning and Importance,
E-commerce and Entrepreneurship -Meaning and benefit.
Women Entrepreneurship- Concept, Characteristic, Obstacles, Remedies for women entrepreneurships. Role of SHG in women entrepreneurship development.
Example of Budding Entrepreneurs (Any 2)

Reference Books:

- G.S.Sudha, Fundamentals Of Entrepreneurship, R.B.D. Publications.
- Ramchandani, Sharma, Pareek, Saxena, Fundamentals Of Entrepreneurship, Ajmera Book Company.
- Dr. S. S. Khanka, Entrepreneurial Development, S. Chand & Company Pvt. Ltd.
- Drucker P. Innovation and Entrepreneurship. Butterworth-Heinemann Publication
- Prasanna Chandra: Project Planning, Analysis, Selection, Implementation and Review, Tata McGraw Hill.

Note: Latest edition of books to be referred

SOPHIA GIRLS' COLLEGE,

(AUTONOMOUS)

AJMER

Scheme of Examination
And
SYLLABUS
BATCH 2023

FOR

BACHELOR OF LIBRARY AND INFORMATION SCIENCE (BLIS)

Semester – I & II

BACHELOR OF LIBRARY AND INFORMATION SCIENCE

OBJECTIVE: To train the student in the basics of professional skills and information knowledge management, so that they serve the society through an institution of library & information science. For fulfilling the main objective, the curriculum is designed to educate the students in the philosophy of librarianship, basic principles, fundamentals laws, professional ethics, etc.; to enhance the students in the skills of information knowledge processing, organization and retrieval; to train them in the management of library & information centre; to enable the students to understand and appreciate the purposes of library & information centres in the changing social, cultural, technological and economic environment; to train the students in the basics of information science and technology.

DURATION: The duration of the course leading to the Degree of Bachelor of Library and Information Science (BLIS) shall be of one academic year of two semesters.

ELIGIBILITY: Eligibility for admission in BLIS is graduation in any discipline from any recognised University (Mentioned in the MDS University approved Universities List) with at least 45% marks. As regards admission on reserved category seats government rules will be applicable.

SCHEME OF EXAMINATION

The number of paper and the maximum marks for each paper together with the minimum marks required for a pass are shown against each subject separately. It will be necessary for a candidate to pass in the theory part as well as the practical part of a subject /paper, wherever prescribed, separately.

Classification of successful candidates shall be as follows:

First Division 60%

Second Division 45% of the aggregate marks

All the rest shall be declared to have passed the examination.

1. For passing a candidate shall have to secure at least 40% marks in each paper &aggregate.

Scheme of End Semester Examination [Examination Pattern]

Max. Marks: 100 Min. Marks:40

Internal Assessment:30 Duration: 3hrs

External Assessment:70

Theory Paper Scheme

1. Each theory paper is divided into three independent units. The question paper is divided into three Parts: Part – A, Part – B, Part – C

2. **Part – A (10 * 1 = 10 Marks)** is compulsory and contains 10 questions, at least three question from each unit (but 4 question from one unit). Each question is of 1 mark. [20 Words]

3. **Part – B (3 * 5 = 15 Marks)** is compulsory and contains 6 questions (Internal choice will be given), 2 question from each unit. Candidate is required to attempt three questions one from each unit. Each question is of 5 marks. [75 - 100 Words]

4. **Part – C (3 * 15 = 45 Marks)** is compulsory and contains 6 questions (Internal choice will be given), 2 question from each unit. Candidate is required to attempt three questions one from each unit. Each question is of 15 marks. [400 Words]

Practical Paper Scheme

Scheme for BLIS – 104 (Information Communication Technologies: Basics – II (Practical)

The paper isdivided into two parts. Part A – 4 questions of 60 Marks and Part B - Viva Voice of 10 Marks. In Part A the candidates are required to attempts 4 questions in all out of total 6 questions.All questions carry equal marks.

Scheme for BLIS – 203: Classification (Practical)

The paper is divided into two Parts Part I and Part II. Each part carries 35 marks. There are fifteen titles in each part candidates are required to classify any ten of them.

Scheme for BLIS – 204: Cataloguing (Practical)

The paper is divided into two Parts. Part I and II carries 35 marks each. There are four titles in each part. The candidates are required to catalogue any two titles out of four titles in each part.

Program Outcomes

Program outcomes for a Bachelor of Library and Information Science (BLIS.) program, designed to align with the guidelines of the National Assessment and Accreditation Council (NAAC) and the National Education Policy (NEP) in India:

1. **Foundational Knowledge**

Educate the students in the philosophy of librarianship, basic principles, fundamental laws, professional ethics.

2. **Knowledge Organization**

Enhance the students in the skills of information knowledge processing, organization and retrieval.

3. **Library Management**

Train the students in the management of Library and Information Centre.

4. **Ethical Awareness and Social Responsibility**

Enable the students to understand and appreciate the purposes of Library and Information Centres in the changing social, cultural, technological and economic environment.

5. **Implementation of ICT in Libraries**

Train the students with basics of information and communication technology and its applications in Libraries & Information Centres.

6. **Library Classification and Cataloguing**

Train students in the techniques of classifying titles of documents according to colon classification. (Rev. Ed. 6) and Dewey Decimal classification, 19th edition. Trained students in cataloguing of documents according to AACR-II R and CCC (5th edition with amendments).

Course Structure in Semester-I

Sem	Paper Code	Nomenclature	Contact Hours		Credits	Total Marks		Max. Marks	Min. Pass Marks	Duration
			Per Sem	Per Week		Internal	External			
I	BLIS-101	Foundations of Library and Information Science	90	06	06	30	70	100	40	3 hrs
	BLIS-102	Knowledge Organization, Information Processing and Retrieval	90	06	06	30	70	100	40	3 hrs
	BLIS - 103	Information and Communication Technologies Basics - I (Theory)	90	06	06	30	70	100	40	3 hrs
	BLIS - 104	Information and Communication Technologies Basics - II (Practical)	90	06	06	30	70	100	40	3 hrs

Semester – I

BLIS - 101: Foundations of Library and Information Science

Max. Marks: 100 **Min. Marks:40**

Credit: 06 **Duration: 3 hrs.**

Course Outcomes: On successful completion of the Course the student will be able to –

1. Explain the basic philosophy of Library and Information Science.
2. Create awareness about legal, political & ethical aspects of information & its use.
3. Understand and appreciate the Library and Information Profession.

Unit – 1: Libraries as Social Institutions and Normative Principles

Social and Historical Foundation of Library

Different types of Libraries and their distinguishing features and functions - Academic, Public, Special and National Library of India

Development of Libraries with Special Reference to India

Library and Information Science Education in India - Historical Development, levels of courses

Role of Library in Formal and Informal Education

Five Laws of Library Science and their Implicationsin Library and Information Activities

Unit – 2: Library Legislation and Library Profession

Library Legislation – Need and Essential Features

Library Legislations in India -Structure and Salient Features

Intellectual Property Rights - Copyright Act and Delivery of Books (Public Libraries) Act

Librarianship as a Profession

Professional Ethics

Unit – 3: Professional Associations and Promoters of Library and Information Science

National Associations -ILA, IASLIC - Objectives, Functions and Activities
International Associations- ALA, CILIP and IFLA - Objectives, Functions and Activities
National Level Promoters – Raja Ram Mohan Roy Library Foundation, UGC
International Level Promoters – UNESCO

ReferenceBooks:

1. Ranganathan, S.R. Five Laws of Library Science. 5th ed. Bangalore: SaradaRanganathan Endowment for Library Science, reprinted by EssEss Publications2007.
2. Ranganathan, S.R. Library manual. Bangalore: SaradaRanganathan Endowment for Library Science, reprinted by EssEss Publications 2008.
3. Krishan Kumar. Library Organization, New Delhi:Vikas Publications House, 1997.
4. Vyas, S. D. Library and Society. Jaipur: Panchasheel, 1993.
5. Kumar, PSG. A student's manual of library & information science, New Delhi: BR Publishing House. 2002.
6. Kumar, PSG. Foundations of Library and Information Science Vol-1: Paper 1 of UGC Model Curriculum, New Delhi: BR Publishing House. 2012.
7. Sharma, Pandey S. K. Library and Society. Ed.2 Delhi: EssEss Publication, 2000.
8. Rubin, Richard E. Foundations of library and Information science. 3rdEd.DBS Imprints, 2013.
9. शर्मा, बी. के. एवं ठाकुर, यू. एम. पुस्तकालय एवं सूचना विज्ञान के मूलधार एवं सूचना प्रबंधन, आगराः वाई के, 2015.
10. चम्पावत जी. एस. पुस्तकालय सूचना एवं समाज. जयपुर : राज. 2018

BLIS-102: Knowledge Organization, Information Processing and Retrieval

Max. Marks: 100 **Min. Marks:40**
Credit: 06 **Duration: 3 hrs.**

Course Outcomes: On successful completion of the Course the student will be able to –
1. Introduce the structure and attributes of universe of knowledge.
2. Demonstrate library classification as a base for knowledge organisation.
3. Understand the principles and theory of library cataloguing.

Unit – 1: Universeof Knowledge

Knowledge - Concept, Definition, Types
Universe of Subjects - Concept,Structure and attributes
Different types of subjects -Basic, Compound and Complex
Modes of Formation of Subjects
Mapping of Subjects According to CC (Main Classes) and DDC (2nd Level Classes)

Unit – 2: Library Classification

Library Classification- Definition, Need and Purpose
Types of Library Classification Schemes -Enumerative and faceted
Standard Schemes of Classification and their Salient Features (CC, DDC)
Postulational Approach to Classification, Facet Analysis, Fundamental Categories, Phase Relation, Principles of Helpful Sequence and Facet Sequence
Notation - Need, Type and Quality, Call Number - Class Number, Book Number and Collection Number

Unit – 3: Bibliographic Description

Catalogue - Definition, Need and Purpose
Physical Forms of Library Catalogue - Conventional and Non-Conventional
Inner forms of Library Catalogue
Kinds of Catalogue Entries according to CCC and AACR-2
Subject Cataloguing - Definition, Need, Purpose and Approaches
Sears List of Subject Headings, Chain Procedure
Centralizedand CooperativeCataloguing

ReferenceBooks:

1. Ranganathan, SR. Elements of library classification. South Asia Books, 1990.
2. Ranganathan, S.R. Prolegomena to library classification. SaradaRanganathan Endowment for Library Science, reprinted by EssEss Publications 2006.
3. Dewey, Melvil. Dewey Decimal Classification. 19th ed. New York : Forest Press, 1979.
4. Ranganathan, SR. Colon classfification. 6th rev ed. SaradaRanganathan Endowment for Library Science, reprinted by EssEss Publications 2008.
5. Dhyani, Pushpa. Library Classification: Theory and Practice. New Delhi: Neha Publishers & Distributors, 2016.
6. Krishan Kumar. Theory of Classification. 4th rev Ed. New Delhi: Vikas Publications, 2000.
7. Kumar, PSG. Knowledge Organization Information Processing and Retrieval theory Vol.2: Paper 2 of UGC Model Curriculum, New Delhi: BR Publishing House. 2012.
8. पाण्डेय, एस. के. शर्मा, सरलीकृत पुस्तकालय वर्गीकरण सिद्धान्त, नई दिल्ली प्रभात : 2011.
9. सूद, एस पीराज : जयपुर. ग्रन्थालय सूचरकरण के सिद्धान्त., 2014.

BLIS – 103 Information Communication Technologies: Basics - I (Theory)

Max. Marks: 100 **Min. Marks:40**
Credit: 06 **Duration: 3 hrs.**

Course Outcomes: On successful completion of the Course the student will be able to –

1. Acquaint with the basic concepts of computers and communication technologies.
2. Explaingeneral application software MS – Word, MS-Excel & MS-PowerPoint.
3. Understand various aspects of library automation and networks.

Unit- 1: Basics of Computers, Networks and Internet

Introduction to Computer - Definition, Diagram, Characteristics, Hardware & Software.
Software & its types, User Interface - Concept of CUI & GUI.
MS Windows, Desktop (My Computer, My Documents, Recycle Bin, Internet Explorer, Start Menus and Taskbar, Windows Explorer.
Network - Concept, Components, Topologies, (LAN, WAN, MAN, VPN)
Internet Basics - Definition, Origin, Need and Purpose, Internet Services
Communication Tools and Techniques –Introduction to E-mail, Video Conferencing, Voice mail, Web Portals, Social Networking Tools like Facebook, Twitter etc.

Unit- 2: General Application Software

MS-Word: Features, Application Areas and its uses, types of views. Creating &Saving: New Document, copy, cut, paste, undo, redo, Fonts, Paragraphs: Indentation and Spacing, Columns. Styles, Find, Replace &Goto. Inserting Tables, Picture, ClipArt, Shapes, Smart Art and Charts, Symbols and Equations,

Hyperlink, Bookmark. Header & Footer. DropCap, Textbox, WordArt, Date and Time. Table of contents, Footnotes and Endnotes, Watermark,Page background. Mailmerge, Macros,Spelling&Grammar, Auto correct and Auto Text. Comments, Protect document. Page Setup, Size, Margins, Gutter, Orientation.

MS-Excel: Features, Application Areas & its uses, views & its types, formatting & its types.
Charts**:** Line, bar, column, area, pie. Pivot Tables Data management**:** Sort, filters, validation, auditing & tracing.**Functions & Formulas(Text:** concatenate find, left, right, mid, lower, upper, proper, substitute, trim. **Logical:** and, or.**Math & trig:** Abs, int, even, odd, pi, power, product, sqrt, sum.**Statistical:** Average, count.)

MS-PowerPoint: Features, Application Areas & its uses, Creating Presentations through Blank Presentations, Templates, Views of PowerPoint, Slide Transactions, Custom Animation, Inserting sounds.

Unit 3:Computer Application to Library and Information Services and Library Networks

Library Automation - Definition, Need and Purpose
Application of Computers to Library Housekeeping Operations
Basic Features/Modules of Library Management Software - SOUL Latest Version / KOHA
Library Networks - Need, Purpose and Objectives
National Library Networks (DELNET, INFLIBNET)

ReferenceBooks:

1. Sinha, P.K. Computer fundamentals, 6thed. New Delhi: BPBPublications, 2004.
2. Leon, Alexis and Leon, Mathews. Fundamentals of information technology, 2nd ed. New Delhi: Vikas Publishing, 2009
3. Cox, Joyce &Preppernau, Joan.Microsoft Office 2007.PHI Publication, 2007
4. Kumar, PSG. Information Technology Basic.Vol.4:-paper IV of UGC Model Crriculum, New Delhi: BR Publishing House. 2003.
5. Sharma, Pandey SK. Fundamentals of library automation, New Delhi:EssEss Publications, 2011.
6. Satyanarayana, N.R. A manual of computerization in libraries, 3 Rev Enl edition. New Delhi:EssEss Publications, 2014.
7. UNESCO, Mini-Micro CDS/ISIS: reference manual. Paris: UNESCO, 1989.
8. शर्मा, बी. के. एवं ठाकुर, यू. एम. पुस्तकालय सूचना : विज्ञान एवं सूचना प्रौद्योगिकी विवेचनात्मक अध्ययनवाई के : आगरा. दो खण्ड., 2013.
9. शर्मा, बी. के. एवं ठाकुर, यू. एम. पुस्तकालय एवं सूचना विज्ञान के मूलाधार एवं सूचनाप्रबन्धन. आगरा. वार्ड के, 2015.

BLIS – 104: Information Communication Technologies: Basics – II (Practical)

Max. Marks: 100 **Min. Marks:40**
Credit: 06 **Duration: 3 hrs.**

Course Outcomes: On successful completion of the Course the student will be able to –
1. Develop skills in using computers and communication technologies.
2. Familiarize with Internet.
3. Demonstrate the Library Management Software.

Unit 1: System and Application Software

System Software - Windows (Latest) Operating System:

- Basics such as Desktop, My Computer, Control Panel, Windows Explorer, Accessories Applets - Calculator and Paint.

Application Software: MS Word, MS Excel, MS PowerPoint (Latest Edition):

- MS Word - Standard Toolbars, Creating a Document, Editing a Document, Formatting a Document, Mail Merge, Printing etc.
- MS Excel - File creation, Editing, Inserting, Formatting, Printing, etc.
- MS PowerPoint - Creating Presentation Slides, Animation, Formatting/ Adding Graphics, Slide Show, Customizing and Printing.

Unit 2: Online and Offline Searching

- Basic Internet Searching
- Advance Internet Search with Search Techniques
- E-mail

Unit 3: Library Management Software

- Basics of SOUL Latest Version / KOHA

Note: (External Assessment of 70 marks). The paper is divided into two parts. Part A – 4 questions of 60 Marks and Part B - Viva Voice of 10 Marks. In Part A the candidates are required to attempts 4 questions in all out of total 6 questions. All questions carry equal marks.

ReferenceBooks:

1. Amba, Sanjeevi and Raghavan, K S. CDS/ISIS: a primer. New Delhi: EssEss Publications, 2016.
2. Chaudhary, G G and Chaudhary, Sudatta. Organizing information: from the shelf to the web. London: Facet, 2007.
3. Chaudhary, G G and Chaudhary, Sudatta. Searching CD-ROM and online information sources. London: Library Association, 2000.
4. Simpson, Alan. Windows XP Bible. New York: John Wiley, 2004.
5. Walkenbach, John, et al. Office 2007 Bible. New York: John Wiley, 2007.
6. Winship, Ian and Mcnab, Alison. Student's Guide to the Internet. London: Library Association, 2000.
7. UNESCO. CDS/ISIS for Windows: Reference Manual Version 1.5. Paris: UNESCO, 2004.
8.

Sem	Paper Code	Nomenclature	Contact Hours		Credits	Total Marks		Max. Marks	Min. Pass Marks	Duration
			Per Sem	Per Week		Internal	External			
II	BLIS-201	Management and Organization of Libraries and Information Centres	90	06	06	30	70	100	40	3 hrs

	BLIS-202	Knowledge Resources and Reference Services	90	06	06	30	70	100	40	3 hrs
	BLIS -203	Classification (Practical)	90	06	06	30	70	100	40	3 hrs
	BLIS -204	Cataloguing (Practical)	90	06	06	30	70	100	40	3 hrs
	AEC	Advanced Communication Skill **OR** Advanced Computer Application	30	02	02	15	35	50	20	1 hrs
Total					**26**			**450**	**180**	
Grand Total					**50**			**850**	**340**	

Semester – II

BLIS – 201: Management and Organization of Libraries and Information Centres

Max. Marks: 100 **Min. Marks:40**

Credit: 06 **Duration: 3 hrs.**

Course Outcomes: On successful completion of the Course the student will be able to –

1. Understand the role and importance of the principles and practice of management.
2. Explainhuman resource and financial management.
3. Acquaint with the functions, activities and routines of various sections in a library/ information centre.

Unit 1: Management

Management: Concept, Definition and Scope
FunctionsandPrinciplesof Management
Scientific Management – Concept, Principles
Total Quality Management –Concept,Definition, Elements

Unit 2: Human Resourceand Library Finance

Planning - Definition, Need and Purpose, Library Building and its Planning
Organizational Structure and Library Committees - Concept, Importance, Functions
Library Finance - Sources of Finance
Budget - Concept, Definition, Purpose and Techniques for Budget Preparation

Unit 3: Library House Keeping Operations

Different Sections and their Functions of Library and Information Centres(Acquisition Section,Technical Section,Circulation Section, Periodicals Section, Reference Section, Maintenance Section)
Library Rules & Regulations - Purpose, Preparation
Stock Verification and Weeding out Policies and Procedures
Types of Reports, Contents and Style of Annual Reports
Library Statistics - Purpose and Types

ReferenceBooks:

1. Ranganathan, S. R. Library Administration. 2nd ed. New Delhi: EssEss, 2006.
2. Krishan Kumar. Library Management in Electronic Environment. New Delhi: Har- Anand Publications, 2007.
3. Krishan Kumar. Library administration and management. 2nd ed. New Delhi :Vikas, 1993.

4. Mittal, R. L. Library Administration: Theory and Practice. 5thed. New Delhi: EssEss Publications, 2007.
5. Kumar, PSG. Management of Library and Information Centers.Vol.5: Paper V of UGC Model Curriculum, New Delhi: BR Publishing House. 2012.
6. Dhiman, Anil Kumar & Rani, Yashoda. Library Management: a Manual for Effective Management. New Delhi:EssEss Publications, 2004.
7. अग्रवाल, एस. एसराज : जयपुर. ग्रन्थालय प्रबन्धन के मूल तत्व., 2014.
8. शर्मा, एस. के. पुस्तकालय प्रशासन एवं प्रबंधन, नई दिल्ली : वाणी,

BLIS –202: Knowledge Resources and Reference Services

Max. Marks: 100 **Min. Marks:40**
Credit: 06 **Duration: 3 hrs.**

Course Outcomes: On successful completion of the Course the student will be able to –

1. Explain different categories of knowledge and information sources.
2. Acquire skills for providing reference and information services.
3. Study Information needs, user studiesand usereducation.

Unit 1: Information Sources

Knowledge and Information Sources: Definition, Importance
Categories of Information Sources: Primary, Secondary and Tertiary
Documentary Sources of Information Print and Non Print Including Electronic - Definition, Need and Use
Non-documentary Sources of Information: Human & Institutional Sources – Nature, Types, Characteristics & Utility
Nature, Characteristics, Utility and Evaluation of Different Types of Knowledge/Information Sources: Encyclopaedias, Dictionaries, Year Books, Directories, Almanacs, Handbooks, Bibliographies, Biographical Sources, Geographical Sources
Internet as a Source of Information

Unit 2: Information Services

Knowledge and Information Services - Concept, Definition, Need and Trends
Types of Information Services: Reference Service - Long Range and Short Range,Information Alerting Services - CAS, SDI, Bibliographic, Referral, Document Delivery, Abstracting andIndexing, Translation, Literature Search.

Unit 3: Information Users

Types of Information Users
User's Need/Information Seeking Behaviour – Concept, Methods of Assessing Information Needs
User Studies:Concept, need, Methods and Techniques
User Education: Concept, goals and objectives, Methods.

ReferenceBooks:

1. Katz, William A. Introduction to reference work. 2v. 8th ed. New York : McGraw Hill, 2001.
2. Krishan Kumar. Reference Service. 5th rev. ed. New Delhi: Vikas Publications, 2001.
3. Ranganathan, S. R. Reference Service. 2nd ed. Bangalore: SaradaRanganthan Endowment for Library Science, 1989.

4. Kumar, PSG. Information Sources and Service Theory and Practice (Vol-6): Paper VI and VII of UGC Model Curriculum, New Delhi: BR Publishing House. 2004.
5. Kaushik, Purnima. Sandarbhsewa. Jaipur.
6. कौशिक, पूर्णिमा. सन्दर्भ सेवा एवं सन्दर्भ स्त्रोत, जयपुर : राज. 2016.
7. त्रिपाठी, एस. एम. प्रलेखन एवं सूचना सेवाएं. आगरा : वाई के 2012.
8. त्रिपाठी, एस. एम. सूचना प्रणालियाँ एवं नेटवर्क. आगरा : वाई के, 1997.
9. त्रिपाठी, एस. एम. सन्दर्भ एवं सूचना सेवा के नवीन आयाम. आगरा : वाई के, 1993.

BLIS – 203: Classification (Practical)

Max. Marks: 100 **Min. Marks:40**
Credit: 06 **Duration: 3 hrs.**

Course Outcomes: On successful completion of the Course the student will be able to –
Trained students in the techniques of classifying titles of documents according to colon classification. (Rev. Ed. 6) and Dewey Decimal classification, 19th edition.

Note: The paper is divided into two Parts Part I and Part II. Each part carries 35 marks. There are fifteen titles in each part candidates are required to classify any ten of them.

Part – I: Classification of Documents by Dewey Decimal Classification DDC (19th ed.)

Classification of Documents Representing Simple, Compound, Complex Subject and Common Isolates etc.

Part – II: Classification of Documents by Colon Classification (6threvised edition)

Classification of Documents Representing Simple, Compound, Complex Subject and Common Isolates etc.

ReferenceBooks:

1. Dewey, Melvil. Dewey Decimal Classification. 19th ed. 3 vol. New York: Forest Press, 1979.
2. Ranganathan, SR. Colon Classification, 6th rev ed. Bangalore :SaradaRanganathan Endowment for Library Science, 1963. (reprinted by EssEss Publications 2008).
3. Satija, M.P. A Manual of Practical Colon Classification. 4th ed. Delhi: Concept, 2002.
4. Satija MP. The Theory and Practice of the Dewey decimal classification System. 2007. Chandos Publishing, Oxford.
5. Champavat, S.S. Colon Classification : practical study, RBSA, Jaipur, 1986.
6. Sood, S.P. and Raotani, M.R. Practical book of Decimal Classification, RBSA, Jaipur, 1987.
7. भार्गव, जीडी. ग्रन्थलयवर्गीकरण, भोपाल : मध्यप्रदेश हिंदी ग्रन्थअकादमी, 1993.
8. कोठारी, डी. वी. एवं सिंह, वी. पी. द्विबिन्दु व दशमलव प्रणालह : क्रियात्मक वर्गीकरण. जोधपुर निधि 1991.
9. पाण्डेय, एस. के. शर्मा, व्यवहारिक डेवी डेसीमल वर्गीकरणविद्या विहार : नई दिल्ली., 1999.
10. सतीजा, एम. पीप्रायोगिक द्विबिन्दु वर्गीकरण ., रमाकान्त शर्मा द्वारा अनुवादितनई .दिल्ली एस :. एस., 1992.

BLIS – 204: Cataloguing (Practical)

Max. Marks: 100 **Min. Marks:40**
Credit: 06 **Duration: 3 hrs.**

Course Outcomes: On successful completion of the Course the student will be able to –
Trained students in cataloguing of documents according to AACR-II R and CCC (5th edition with amendments).

Note: The paper is divided into twoParts. Part I and II carries 35 marks each. There are four titles in each part. The candidates are required to catalogue any two titles out of four titles in each part.

Part – I: Cataloguing of Documents by AACR-II R

- Documents having Personal Author, Shared Author (s), Collaborator (s)
- Documents published under Pseudonym (s)
- Cataloguing of Corporate Authorship
- Multivolume Documents
- Periodical Publications

Catalogued documents may be assigned subject headings as per "Sear's List of Subject Headings (Latest edition)"

Part – II: Cataloguing of Documents by Classified Catalogue Code (5th edition with amendments).

- Documents having Personal Author, Shared Author (s), Collaborator (s)
- Documents published under Pseudonym (s)
- Cataloguing of Corporate Authorship
- Multivolume Documents
- Periodical Publications

Catalogued documents may be assigned subject headings as per "Chain Procedure"

ReferenceBooks:

1. Anglo-American Cataloguing Rules. 2nd rev. Ed. London : Library Association, 1978.
2. Sears List of Subject Headings. 21st ed. New York : Wilson, 2014.
3. Ranganathan, SR. Classified catalogue code with additional rules for dictionary catalogue code. 5th ed. Banglore :SaradaRanganathan Endowment for Library Science, 1989. (reprinted by EssEss Publications 2007).
4. Ranganathan, SR. Cataloguing practice. 2nd ed. Ubs Publishers' Distributors (P) Ltd, 1995.
5. Krishan Kumar. An introduction to cataloguing practice : New Delhi : Vikas, 1993.
6. Krishan Kumar. An introduction to AACR-2 New Delhi :Vikas, 1990
7. Sehgal, R.L. Cataloguing manual AACR-2. New Delhi :EssEss.
8. सूद, एस. पी. क्रियात्मक सूचीकरण : ए ए सी आर 2. जयपुर : राज2016.
9. सूद, एस. पी. क्रियात्मक सूचीकरण : सी सी सी जयपुर : राज2016.