

FACULTY OF SCIENCE
M. Sc (ENGG. PHY& INSTR. AND PHYSICS) IV SEM (CBCS) EXAMINATIONS, JULY 2025
ELECTROMAGNETIC THEORY AND OPTICS
PAPER-I

Time: 3 Hours]

[Max. Marks: 80

SECTION - A ($4 \times 5 = 20$ Marks)

1. Answer ALL the following

- a) Maxwell's equations under Coulomb and Lorentz gauge.
- b) Explain how Maxwell corrected Ampere's law.
- c) Obtain wave equation in free space from Maxwell's equations. Write down the equation for a wave travelling in z direction and polarized in x direction.
- d) What are the differences between parametric and nonparametric processes?

SECTION - B ($4 \times 15 = 60$ Marks)

Answer ALL the Questions

2. a) Energy of Continuous charge distribution (7M)
b) Obtain Electrostatic boundary conditions. (8M)

OR

- c) What is retarded potential? (5M)
d) Obtain Jefimenko equations (10M)

3. a) What is continuity equation (5M)
b) What is conservation energy theorem in Electrodynamics? (10M)

OR

- c) Explain how Maxwell's stress tensor emerges in the force expression for total EM force on the charges in volume V in detail.

4. a) Write down the wave equation in conducting media and show that the E and B components maintain a phase difference of $\frac{\pi}{2}$ as they propagate.

OR

- b) Obtain the expression for power radiated by Magnetic dipole.

5. a) Write down the wave equation for nonlinear optical media. (5M)
b) What is sum and difference frequency generation, OPA and OPO processes and their uses? (10M)

OR

- c) Discuss theory of multi photon process.

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FACULTY OF SCIENCE
M. Sc (CHEMISTRY) IV SEMESTER (CBCS R-22 NEW) EXAMINATIONS, JULY 2025
ANALYTICAL TECHNIQUES AND GREEN CHEMISTRY
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION-A (4 X 5 = 20 Marks)

1. Answer ALL questions

- Discuss the principle of TGA with a neat sketch of typical thermogram.
- Compare the applications of Supercritical fluid chromatography with the applications of HPLC and GC.
- Write in brief about the principle and applications of UV-Vis spectro photometer.
- What is phase transfer catalysis? Explain in detail about the applications of phase transfer catalyst.

SECTION-B (4 x 15 = 60 Marks)

Answer ALL the questions

- Write a brief note on principle and application of Differential Scanning calorimetry and explain its methodology?
 - Discuss the theory, instrumentation and applications of Thermometric titrimetry.

(OR)

- Write in detail about Dynamic mechanical analysis with suitable examples.
- Explain about decomposition pathway and percentage composition in detail.

- Write a short note on

- HETP
- Effective Plate number

- Describe the solvent extraction of metals as metal chelates with suitable examples.

(OR)

- Explain the method of solid phase extraction.
- What is retention behavior? Write a short note on retention parameter in chromatography.

- Write in detail about the following techniques

- Scanning Electron Microscopy (SEM)
- Tunnelling Electron Microscopy (TEM)

- Write a short note on properties of nanoparticles.

(OR)

- Describe the basic principles and applications of Atomic force Microscopy (AFM).
- Write about the following methods in detail

- Co-precipitation
- Wet impregnation

- Discuss in detail Supercritical fluids as green solvents and their industrial applications.
 - Explain in detail about microwave and ultrasound assisted reactions.

(OR)

- Write about

- Green analytical techniques
- Micelle mediated extraction

- What are ionic liquids? Explain their properties and applications in organic Synthesis.

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503/JULY25/IV-A(E)(O)

FACULTY OF SCIENCE
M. Sc. (CHEMISTRY) IV SEMESTER (CBCS R-16 OLD) EXAMINATIONS, JULY 2025
REACTION MECHANISM, NON BENZENOID AROMATICS AND NANOMATERIALS
(ORGANIC CHEMISTRY SPECIAL)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1. Answer ALL questions

- a) Explain the Mitsunobu reaction.
- b) Discuss the Chapman rearrangement.
- c) Define the terms aromatic, non aromatic and anti aromatic molecules.
- d) Write a note on Liquid crystals and Molecular wires.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2.
 - a) Describe the reaction and mechanism of Nazarov cyclisation.
 - b) Explain the Wacker oxidation process.

OR

 - c) Write a note on Grubbs's 1st and 2nd generation catalysts.
 - d) Discuss the Sharpless azide cycloaddition reactions with mechanism.
3.
 - a) Explain the Acylation of amines and acyl esters.
 - b) Write a note on long living carbocations and Super acids.

OR

 - c) Write a note on Robinson's annulations.
 - d) Explain the Darzens condensation.
4.
 - a) Discuss the applications and Limitations of Huckel's rule.
 - b) Predict the synthesis and aromatic nature of cycloheptatrienylcation.

OR

 - c) Describe the aromatic properties of azulenes and metallocenes.
 - d) Write the synthesis of cyclopropeniumcation derivatives.
5.
 - a) Discuss the growth and chemical synthesis of Fullerenes.
 - b) Explain about 'bottom-up' approach and Nanomanipulation.

OR

 - c) Predict the structures of aromatic belts and molecular machines.
 - d) Explain the basic OLED mechanism of organic solar cells.

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502/JULY25/IV-A

FACULTY OF SCIENCE
M. Sc (BOTANY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
BIODIVERSITY AND CONSERVATION
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Keystone taxa.
- b Endemism.
- c RAMSAR Convention.
- d Gums and resins.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Discuss genetic diversity and species diversity with suitable examples.

OR

B Explain the aims and objectives of biodiversity in detail.

3 A Discuss on the maintenance and loss of biodiversity.

OR

B Write a detailed account on the hot spots found in India.

4 A Explain the process of inventorying of resource base for biodiversity.

OR

B Describe the assessment and use of molecular DNA data on biodiversity.

5 A Discuss on the economic value and usage of biodiversity for food and fodder.

OR

B Give a brief account on the origin of cultivated plants.

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504/JULY25/IV-A

FACULTY OF SCIENCE
M. Sc (COMPUTER SCIENCE) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
AUTOMATA THEORY
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Explain briefly about Transition Diagrams.
- b Write a short note on Regular Grammars.
- c Define PDA.
- d Define P and NP problems.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Explain in detail the Following:

- i) Alphabets and Strings ii) Languages iii) Finite Automata

OR

B Discuss in detail about Minimization of Finite Automata and Two-Way Finite Automata.

3 A Explain in detail about Pumping Lemma of Regular Sets and its Applications.

OR

B Discuss in detail about equivalence between Regular Linear Grammar and Finite Automata.

4 A What are Context Free Grammars? Explain in detail about Chomsky Normal Form.

OR

B Explain in detail about acceptance by final state and acceptance by empty state and its equivalence.

5 A Define Turing Machine. Explain in detail the design and types of Turing Machines.

OR

B Explain in detail the following:

- i) Church's hypothesis ii) Chomsky Hierarchy of Languages iii) DCFL

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FACULTY OF SCIENCE
M. Sc (FOOD SCI. & TECHNOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ADVANCES IN FOOD PACKAGING
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 Answer ALL the questions

- a Explain factors affecting effectiveness of antimicrobial packaging.
- b Write the limitations of non-migratory bioactive polymers in food packaging.
- c Explain bar coding.
- d Explain controlled atmosphere packaging.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Describe the types of packaging materials and their properties.

OR

B Discuss the different packaging systems for foods.

3 A Discuss the current use of novel packaging techniques.

OR

B Describe the inherently bioactive polymers in food packaging.

4 A Describe packaging standards and regulations.

OR

B Discuss the evaluation of packaging materials and packaging performance.

5 A Discuss the role of packaging in the supply chain.

OR

B Discuss the development of novel biodegradable materials.

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613/JULY25/IV-A

FACULTY OF SCIENCE
M. Sc (NUTRITION AND DIETETICS) IV SEM (CBCS) EXAMINATIONS, JULY 2025
ADVANCED NUTRITION
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Explain designer foods.
- b Write the factors affecting bioavailability of calcium.
- c Write about immunoglobins.
- d Give a brief account on boil in bag packaging.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss the role of leptin and ghrelin on food intake.

OR

- B Describe the applications of irradiated foods in armed forces.

- 3 A Briefly explain the methods for evaluating protein quality.

OR

- B Describe the methods for determining the bioavailability of vitamins and minerals using radioisotopes.

- 4 A Discuss in detail malnutrition and immune function.

OR

- B Describe the thrifty genotype hypothesis.

- 5 A Briefly discuss the different types of packaging materials.

OR

- B Discuss the labelling provisions in existing Food laws -FSSAI.

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517/JUL25/IV-A

FACULTY OF SCIENCE
M. Sc (DATA SCIENCE) IV SEMESTER (CBCS R 19) EXAMINATION, JULY 2025
RESEARCH METHODOLOGY
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 Answer ALL Questions

- A Explain the objectives and motivation of research with suitable examples.
- B Distinguish between Research Methods and Research Methodology.
- C Discuss the significance of literature survey in a research project
- D Explain the features of a good research design.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL Questions

- 2 A** Explain the types of research with suitable illustrations.

OR

- B** What are the major problems encountered by researchers in India?

- 3 A** Describe the steps in the research process.

OR

- B** Elaborate on the criteria for selection of research problem

- 4 A** Discuss the types of research designs and their applications.

OR

- B** Explain the basic principles of experimental design

- 5 A** Explain the layout of a research report.

OR

- B** What is the mechanism of writing a research paper? Describe the process of indexing and citation.

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518/JULY25/IV-A

FACULTY OF SCIENCE
M. Sc (MICROBIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
CELL AND MOLECULAR BIOTECHNOLOGY
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Programmed cell death
- b Screening of genomic library
- c Single sequence repeat markers
- d BLAST

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Explain the detail account on cell division regulation and its role in cancer.

OR

B Give a detail account on protein folding and its role of molecular chaperones.

3 A Write a detailed account on types of protein sequencing and their merits.

OR

B Describe the analysis of protein-protein and protein-DNA interactions.

4 A Explain the steps in DNA finger printing and its merits along with demerits.

OR

B Give a detail account on gene knock out and gene silencing.

5 A Explain the concept of primary and secondary data banks.

OR

B Describe the genome annotation and gene prediction.

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526/JULY25/IV-A

FACULTY OF SCIENCE
M. Sc (ZOOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
CELL BIOLOGY
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Types of Carrier Proteins
- b Organisation of Chromatin and nucleosomes
- c Mitotic apparatus
- d Protooncogenes

SECTION - B (4 X 15 = 60 Marks)
Answer ALL questions

2 A What is Cell? Explain the Structural organisation of Virus and Bacteria.

OR

B Give an account on membrane models and their composition in detail.

3 A Describe the structure and functions of Power house of Cell.

OR

B What are Glycosylation proteins? Add a note on Cis and Trans Golgi functions.

4 A Discuss about Cell surface receptors and signal transduction mechanism.

OR

B Write an essay on different types of Cell adhesion molecules.

5 A Explain about Apoptosis and their pathways.

OR

B What are Telomerases? Write about Cell Senescence in detail.

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FACULTY OF SCIENCE
M. Sc (STATISTICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
STOCHASTIC PROCESS
PAPER –I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Explain the classification of Stochastic Processes?
- b What do you understand by a random walk illustrate with a suitable diagrammatical representation example?
- c Define Pure Birth process and write any two examples on the same?
- d State the key renewal theorem and its uses?

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Prove that a state 'i' of a Markov chain is persistent or transient if $\sum_{i=1}^{\infty} p_{ii}^{(n)} = \infty$ and

$$\sum_{i=1}^{\infty} p_{ii}^{(n)} < \infty?$$

OR

- B Define the terms: (i) Aperiodic state, (ii) Periodic state, (iii) Transient state, (iv) positive recurrent state, (iv) Null recurrent state (v) absorbing state. Also explain each with a suitable example and diagrammatical representation (if possible)?
- 3 B Define Canonical representation of a transition probability matrix. Show that if $i \leftrightarrow j$, then 'i' and 'j' have the same period?

OR

Describe the Gambler ruin problem. How is it related to random walk problem. If any establish the same?

- 4 A Define pure death process and derive Kolmogorov differential difference equations of the same?

OR

- B Derive Kolmogorov differential difference equations for Pure Death process?

- 5 A State and prove the fundamental theorem of branching process?

OR

- B Explain Galton-Watson branching process and obtain its mean and variance of size of n^{th} generation?

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FACULTY OF SCIENCE
M. Sc. (MATHEMATICS) IV SEM (CBCS R-22 NEW) EXAMINATIONS, JULY 2025
ADVANCED COMPLEX ANALYSIS
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)1 **Answer ALL the questions.**

- a Use the inequality $||z_n| - |z|| \leq |z_n - z|$ to show that, if $\lim_{n \rightarrow \infty} z_n = z$ then $\lim_{n \rightarrow \infty} |z_n| = |z|$
- b Find the residue at $z = 0$ of the functions (i) $\frac{z - \sin z}{z}$ (ii) $\frac{\cot z}{z^4}$
- c Use residues to evaluate the improper integral $\int_0^\infty \frac{dx}{x^4 + 1}$
- d Show that the transformation $w = iz + i$ maps the half plane $x > 0$ onto the half plane $v > 1$.

SECTION - B (4 X 15 = 60 Marks)**Answer ALL the questions.**

- 2 A Represent the function $f(z) = \frac{z+1}{z-1}$
 (i). by its Maclaurin series, and state where the representation is valid.
 (ii). by its Laurent series in the domain $1 < |z| < \infty$.
OR
- B Show that the function $f_2(z) = \frac{1}{z^2}$ ($z \neq 0$) is the analytic continuation of the function $f_1(z) = \sum_{n=0}^\infty (n+1)(z+1)^n$, ($|z+1| < 1$) into the domain consisting of all points in the z plane except $z=0$.
- 3 A In each case, show that any singular point of the function is a pole. Determine the order m of each pole and find the corresponding residue.
 (i). $\frac{z^2+2}{z-1}$ (ii) $\left(\frac{z}{2z+1}\right)^3$ (iii) $\frac{\exp z}{z^2 + \pi^2}$
OR
- B Show that
 (i). $\text{Res}_{z=z_n}(z \sec z) = (-1)^{n+1} z_n$ where $z_n = \frac{\pi}{2} + n\pi$ ($n = 0, \pm 1, \pm 2, \dots$)
 (ii). $\text{Res}_{z=z_n}(\tanh z) = 1$ where $z_n = \left(\frac{\pi}{2} + n\pi\right)i$ ($n = 0, \pm 1, \pm 2, \dots$)
- 4 A Use residues to find the Cauchy principal values of the improper integral

$$\int_{-\infty}^{\infty} \frac{\cos x}{(x+a)^2 + b^2} dx \quad (b > 0).$$

OR
- B Use residues to evaluate the definite integrals
 (i). $\int_0^{2\pi} \frac{d\theta}{5+4 \sin \theta}$ (ii) $\int_{-\pi}^{\pi} \frac{d\theta}{1+\sin^2 \theta}$
- 5 A (i). Let the circle $|z| = 1$ have a positive, or counterclockwise, orientation. Determine the orientation of its image under the transformation $w = 1/z$.
 (ii). Show that when a circle is transformed into a circle under the transformation $w = 1/z$, the center of the original circle is *never* mapped onto the center of the image circle.
OR
- B (i). Find the fixed points of the transformation $w = \frac{6z-9}{z}$.
 (ii). Show that every linear fractional transformation, with the exception of the identity transformation $w = z$, has at most two fixed points in the extended plane.

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016/JUL25/IV-A

FACULTY OF ARTS
M.A (Urdu) IV Semester Examination (CBCS)

Core Paper - I (لازمی) پہلا پرچہ

(Ghair Afsanvi Adab) غیر افسانوی ادب

[Time : 3 Hours]

Answer ALL the questions

Max Marks : 80

Section - A

(5 x 4 = 20)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے چار نشانات ہیں۔ ہر جواب پندرہ سطروں میں تحریر کیا جائے۔

1. انشائیے کے فنی لوازمات کی صراحت کیجیے۔
2. رشید احمد صدیقی کی خاکہ نگاری پر تبصرہ کیجیے۔
3. سوانح عمری کی اقسام کی وضاحت کیجیے۔
4. رجب علی بیگ سرور اور غلام غوث بے خبر کی مکتوب نگاری کا اجمالی جائزہ لیجیے۔
5. رپورتاژ کی اہمیت بیان کیجیے۔

Section - B

(5 x 12 = 60)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ نشانات مختص ہیں۔ ہر سوال کا جواب چار صفحات سے زیادہ نہ ہو

6. (A) مرزا فرحت اللہ بیگ کی خاکہ نگاری کا تنقیدی جائزہ لیجیے۔ یا
(B) اردو میں خاکہ نگاری کی روایت پر روشنی ڈالیے۔
7. (A) انشائیے کی تعریف کیجیے اور اس کے فن اور تکنیک کی وضاحت کیجیے۔ یا
(B) اردو کے اہم انشائیہ نگاروں کا تعارف کرایئے۔
8. (A) سوانح نگاری کی تاریخ میں ”یادگار غالب“ کے مقام کا تعین کیجیے۔ یا
(B) سوانح نگاری کے فنی اور تکنیکی تقاضوں پر روشنی ڈالیے۔
9. (A) اردو میں مکتوب نگاری کی روایت پر روشنی ڈالیے۔ یا
(B) مولانا ابوالکلام آزاد کی مکتوب نگاری کا تنقیدی جائزہ لیجیے۔
10. (A) قرۃ العین حیدر کے رپورتاژ ”دکن سانہیں ٹھارسنسار میں“ کے ادبی محاسن کی وضاحت کیجیے۔ یا
(B) اردو کے اہم سفرنامہ نگاروں کا تعارف کرایئے۔

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FACULTY OF ARTS
M. A (TELUGU) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025

ఆధునిక తెలుగు సాహిత్య చరిత్ర అధ్యయనం - II

పేపర్ - I

సమయం: 3 గంటలు]

[గరిష్టమార్కులు : 80

సెక్షన్ - ఎ (5 X 4 = 20 మార్కులు)

- 1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య
వ్రాయండి ఎ కురుగంటి సీతారామయ్య
బి బిరుదురాజు రామరాజు సి
కుందుర్తి అంజనేయులు డి ఊ
టుకూరు లక్ష్మీ కాంతమ్మ ఇ
మైనారిటీ వాదం

సెక్షన్ - బి (5 X 12 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

- 2 ఎ నవ్యంధ్ర సాహిత్య వీధులు ను పరిచయం చేయండి.

లేదా

- బి కడియాల రామమోహనరాయ్ తెలుగు కవితా వికాసాన్ని విశ్లేషించండి

- 3 ఎ పరిశోధకుడిగా వేటూరి ప్రభాకర శాస్త్రి ప్రత్యేకతను సోదాహరణంగా వివరించండి

లేదా

- బి భాషాశాస్త్ర పరిశోధకులుగా భద్రరాజు విశిష్టతను వివరించండి

- 4 ఎ ఆధునిక కవితా మార్గంలో జాషువా ప్రత్యేకతలను వివరించండి

లేదా

- బి కాళోజి నాగొడవ కవితల ప్రత్యేకతను వివరించండి

- 5 ఎ వట్టికోట ఆళ్వారు స్వామి నవలలను పరిచయం చేయండి

లేదా

- బి రచయిత్రిగా రంగనాయకమ్మ నవలల ప్రత్యేకతను పరిచయం చేయండి

- 6 ఎ తెలుగు సాహిత్య పరిణామంలో దళితవాదం తెచ్చిన మార్పులను తెల్పండి

లేదా

- బి తెలుగులో గిరిజన సాహిత్య వికాసాన్ని వివరించండి

FACULTY OF ARTS
M. A (ENGLISH) IV SEM (CBCS R-22 NEW) EXAMINATIONS JULY 2025
MODERN EUROPEAN LITERATURE IN TRANSLATION
PAPER- I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the Questions**

- A Write a short note on antihero?
- B What do the six characters want from the Director in *Six Characters in Search of an Author*?
- C Why does Emma feel dissatisfied with her life in *Madame Bovary*?
- D What is the meaning of the novel's opening line "Mother died today?"
- E What is the relationship between Ruslan and Ludmila in *Ruslan and Ludmila*?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the Questions

- 2 A What is a Problem play? Discuss the characteristics of a problem play with suitable examples?

OR

 - B Define meta-theatre? Discuss its function as a self-reflexive device in dramatic literature?
- 3 A Examine the role of gender placed upon women in 19th-century society as portrayed in *A Doll's House*?

OR

 - B Discuss how *Six Characters in Search of an Author* explores the conflict between illusion and reality?
- 4 A Write an essay on the theme of friendship and loyalty in Alexandre Dumas *The Three Musketeers*?

OR

 - B How does Flaubert critique bourgeois society in *Madame Bovary*? Explain.
- 5 A Discuss the significance of suffering in *Crime and Punishment*? How do various characters endure and respond to suffering differently?

OR

 - B How does Camus use *The Outsider* to express the conflict between individual authenticity and societal expectations? Explain.
- 6 A Discuss the role of magic and the supernatural in Alexander Pushkin's *Ruslan and Ludmila*?

OR

 - B Analyze the theme of beauty and terror in Rainer Maria Rilke's *Duino Elegies*?

★★★★★

FACULTY OF ARTS
M.A. (ENGLISH) IV SEM (CBCS-OLD) EXAMINATIONS, JULY 2025
ENGLISH LANGUAGE TEACHING: MAJOR DEVELOPMENTS IN L1 AND L2
PAPER- I

Time: 3 Hrs]

[Max.Marks:80

SECTION-A (5 X 4 = 20 Marks)

1 **Answer ALL the Questions**

- A Write a short note on Aphasia?
- B Second Language Acquisition
- C Learning Styles
- D World Englishes
- E Write a short note on TOEFL and IELTS?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the Questions

2 A What are the different stages of Language Development in a child? Explain.

OR

B Language disorders are Learning Disabilities? Discuss.

3 A Explain in detail Stephen Krashen's the Monitor Model?

OR

B Write an essay on the models of Second Language Acquisition in the social process?

4 A Rubin's states there are three types of strategies that contribute directly or indirectly to language learning? Explain.

OR

B What is Mind Mapping? How this technique is used in Language Learning?

5 A Write an essay on the relationship of Language, Society and Culture?

OR

B Write an essay on Kumaravadivelu's Macrostrategies for Language Learning?

6 A What is ESP? What are the principles of designing ESP courses?

OR

B Write an essay on Teaching and Testing Group Discussion and Interviews?

★★★★★

317/JULY25/IV-A

**FACULTY OF ARTS AND SOCIAL SCIENCES
M. A (SOCIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SOCIOLOGY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT
PAPER – I**

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 Answer ALL the questions

- a. Concept of Human Ecology
- b. Scope of Environmental Sociology
- c. Pollution Control Board
- d. Idea of Eco-feminism
- e. Imperative of Water Management

SECTION – B (5 × 12 = 60 Marks)

Answer ALL the questions

2 A Write a detailed note on various environmental issues prevail in India.

OR

B Elaborate on the different theoretical perspective available in sociology of environment.

3 A Examine the interface between science, technology and society.

OR

B Highlight salient features of environmental policy of India.

4 A Describe motivations and outcomes of Chipko movement.

OR

B Analyse the role of NGOs in environmental movements

5 A Present sociological view of sustainable development with examples

OR

B Discuss important aspects of Natural Resource Management.

6 A “Environmental education is a prerequisite for the sustainable society” – Substantiate

OR

B Examine the effect of air pollution on human health with special reference to New Delhi.

★★★★★

310/JUL25/IV-A

**FACULTY OF SOCIAL SCIENCES
MSW IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SOCIAL WELFARE ADMINISTRATION
PAPER - I**

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Social security
- b Personal development
- c Functions of CDPO
- d Non -institutional programs
- e Supervision and Mentoring

SECTION – B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Present an overview of historical development of social welfare administration in post independent India.

OR

- B Define social services and social welfare services and examine their characteristics.

- 3 A Analyse the various sources of recruitment for social welfare organizations.

OR

- B Discuss in detail about Social Cost Benefit Analysis.

- 4 A Elaborate on the challenges in the administration of non – institutional programs.

OR

- B Present an overview of administrative structure of women and child welfare department at state level.

- 5 A Illustrate how innovation can be undertaken in social welfare organizations.

OR

- B Examine the challenges for social welfare organizations in organizational development.

- 6 A Elaborate on the types of consultancy services in social welfare organizations.

OR

- B Explain about various methods of supervision.

★★★★★

313/JULY25/IV-A

FACULTY OF SOCIAL SCIENCES
M. A (ECONOMICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY-2025
INDIAN ECONOMY
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Composition of foreign trade
- b Tenancy reforms
- c Need of disinvestment
- d Distribution of tax revenue between centre and state
- e Foreign direct investment

SECTION - B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Discuss the structure and process of industrialization in India.

OR

- B What is absolute poverty? Explain recent initiatives taken by government to reduce poverty.

- 3 A Explain the various sources to provide the agricultural finance in India.

OR

- B What is public sector? Explain its role in resource mobilization.

- 4 A Explain the objectives of 1991 new industrial policy and explain its impact on Indian industries.

OR

- B How small scale industries are fulfill the needs of Indian government? - Elaborate

- 5 A How credit policies are to regulate the Indian money market? - Comment

OR

- B Discuss about need of fiscal sector reforms in India.

- 6 A Critically evaluate the impact multinational companies (MNCs) on Indian economy.

OR

- B Discuss about the various issues in export and import policy in India.

★★★★★

408/410/411/425/JULY25/IV-A(N)(O)

FACULTY OF COMMERCE
M.COM IV SEMESTER (CBCS) EXAMINATION, JULY 2025
STRATEGIC MANAGEMENT
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer ALL questions

- a. How mission is different from vision?
- b. What is organizational appraisal?
- c. What are corporate level strategies?
- d. What is strategy implementation?
- e. What is Strategy evaluation and control?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A What is the concept of strategic management? Describe the characteristics and dimensions of strategic management.

OR

- B Explain in detail the process of strategic management.

- 3 A What is Environmental Scanning? Discuss factors effecting environmental scanning.

OR

- B Explain methods and techniques used for organizational appraisal.

- 4 A What is Strategy formulation? Describe the Stability and Expansion Strategy

OR

- B Explain in detail about Retrenchment and Turnaround Strategy.

- 5 A What is Resource Allocation? Explain the approaches of Resource Allocation

OR

- B What do you mean by Leadership? Explain new paradigms of Leadership

- 6 A Explain the nature and importance of Strategic Evaluation and Control

OR

- B Discuss the evaluation techniques for Strategic control and Operational Control

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775/509/JUL25/IV-B

FACULTY OF SCIENCE
M. Sc. (ENGG. PHYSICS AND INSTR. & PHYSICS) IV SEM (CBCS) EXAMS, JULY 2025
MOLECULAR AND RESONANCE SPECTROSCOPY
PAPER - II

Time: 3 Hours]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1) **Write a short note on :**

- a) Vibrations of polyatomic molecules
- b) Frank - Condon principle
- c) Relaxation process in NMR
- d) Recoilless emission and absorption of gamma rays

SECTION – B (4 X 15 = 60 Marks)

Answer ALL the questions

2) (a) Discuss in detail the rotational spectra of rigid and non-rigid rotar.

(OR)

(b) Discuss the vibrational spectra of diatomic harmonic and anharmonic oscillator.

3) (a) Discuss the rotational fine structure of electronic vibration spectra in detail.

(OR)

(b) What is Raman Effect? Describe the instrumentation and working of Raman Spectrometer.

4) (a) Explain principle and resonance condition of NMR. Derive Bloch equations

(OR)

(b) Explain the hyperfine structure of ESR. Discuss the ESR spectrum of Hydrogen atom with energy level diagram.

5) (a) Explain Quadrapole interaction and magnetic hyperfine interaction in Mossbaur experiment

(OR)

(b) What is quadrupole nucleus? Explain principle of NQR and describe instrumentation and working of NQR spectrometer..

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FACULTY OF SCIENCE
M. Sc. (CHEMISTRY) IV SEMESTER (CBCS R-22) EXAMINATIONS, JULY 2025
INORGANIC BIO-CHEMISTRY
(INORGANIC CHEMISTRY SPECIAL)
PAPER-II

Time: 3:00 Hrs]

[Max Marks: 80

SECTION-A (4 x 5 = 20 Marks)

1. Answer ALL questions

- a) Describe the general factors that influence the metal ion Binding sites in solution
- b) Discuss the Structures of deoxy forms and Dinitrogen bonding in hemerythrin and hemocyanin
- c) Discuss about the catalytic mechanism of cytochrome oxidase.
- d) Discuss the biological and mechanistic aspects of xanthine Oxidase.

SECTION-B (4 x 15 = 60 Marks)

Answer ALL the questions

2. a) Discuss the outer Sphere and inner Sphere isomers of M-ATP complexes.
b) Explain in detail,
 - i. Intramolecular equilibrium constant K_1
 - ii. Metal-ion nucleic base interactions

(OR)

- c) Write about the double helix anti and syn confirmations of nucleotides.
- d) Discuss the Stability of Phosphate metal ion complexes.

3. a) Explain in detail about the transport of Na^+ and K^+ across the cell membranes by Na^+ and K^+ ATPase.
b) Discuss in detail about the Iron-Sulphur Proteins
 - i. Rubredoxins
 - ii. Ferridoxins.

(OR)

- c) Discuss the structural and Spectral features of High potential Iron-Sulphur Proteins.
- d) Explain the transport of Ca^{+2} across sarcoplasmic reticulum by Ca^{+2} ATPase

4. a) Describe the structural and mechanical aspects of Carboxy peptidase.
b) Write a short note on
 - i. Leucine
 - ii. Thermolysin.

(OR)

- c) Describe the structural and mechanistic aspects of Amino peptidase
- d) Discuss the reactions catalyzed by Factor-430 and explain its mechanistic aspects.

5. a) Describe the structural and mechanistic aspects of
 - i) Superoxide dismutase
 - ii) Laccase
b) Explain the structural features of Vit- B_{12} with reference to Co-ordination of cobalt.

(OR)

- c) Explain about the Role of Apo-enzyme among the features of cobalt to Suit vitamin B_{12} .
- d) Discuss in detail about the Biological role and mechanistic aspects of Nitrogenase.

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503/JULY25/IV-B(D)(N)(O)

FACULTY OF SCIENCE
M. Sc (CHEMISTRY) IV SEMESTER (CBCS NEW & OLD) EXAMINATIONS, JULY-2025
THERMODYNAMICS, APPLIED KINETICS AND APPLIED ELECTRO CHEMISTRY
(PHYSICAL CHEMISTRY SPECIAL)
PAPER-II

Time: 3 Hrs]

[Max. Marks:80

SECTION - A (4 X 5 = 20 Marks)

1. Answer ALL questions.

- a). Explain Dulong –Pettits law.
- b). write a note on linear flux-force relations.
- c). explain basic objectives in Design of a reactor.
- d). write a brief note on high temperature fuel cells.

SECTION –B (4 X 15=60 Marks)

Answer ALL questions

- 2.
 - a) Derive sacker- tetrode equation.(8 M).
 - b) Derive rotational partition function.(7 M).

OR

 - c) Derive Maxwell Boltzmann distribution law, and explain the terms present in it.(15M)
- 3)
 - a) Write a note on entropy production in material flow.(8)
 - b) Explain Phenomenological equations of different irreversible processes.(7M).

OR

 - c) Derive liquid junction potential equation in terms of transport number.(8M).
 - d) Explain irreversible thermodynamics applied to biological system.(7M).
- 4)
 - a) Explain balance equation for reactor design.(8).
 - b) Describe general features and design equation for a batch reactor.(7M)

OR

 - c) Explain general features design equations for (CSTR) Continuous stirred – tanreactor.
- 5)
 - a) Write a note on Ni-Cd batteries.(7M).
 - b) Explain about phosphoric acid fuel cells.(8M).

OR

 - c) Write the advantages and limitations of fuel cells.(8M).
 - d) Write the industrial applications of anodic oxide films.(7M)

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503/JULY25/IV-B(E)(N)

FACULTY OF SCIENCE
M. Sc. (CHEMISTRY) IV SEMESTER (CBCS R-22) EXAMINATIONS, JULY 2025
DRUG DESIGN AND DRUG DISCOVERY
(ORGANIC CHEMISTRY SPECIAL)
PAPER – II

Time: 3 Hours]

[Max Marks: 80

SECTION –A (4 x 5 = 20 Marks)

1. Answer all the questions

- A. What is serendipity in drug discovery? Explain with examples.
- B. Write a note on bioisosterism.
- C. Write the role of Free-Wilson analysis in QSAR.
- D. Write a note on high-throughput screening (HTS).

SECTION –B (4 x 15 = 60 Marks)

Answer all the questions

- 2. (a) Write the methods used in the discovery of a lead molecule.
(b) Write the principle involved in the design of an agonist.

OR

- (c) Write a note on drug-receptor interaction theories.
- (d) Write the principle involved in the design of a prodrug.

- 3. (a) Write a note on SAR studies in Taxol analogues.
(b) Write the development and discovery of captopril.

OR

- (c) Write a note on strategies used in lead modification.
- (d) Write a note on SAR studies in Sulfa drugs.

- 4. (a) Write a note on Craig's plot and its use in rational drug design.
(b) Write the role of the Hammett constant in QSAR studies.

OR

- (c) What is Lipinski's rule of five? Explain its usefulness and limitations.
- (d) Write the applications of QSAR studies in drug discovery.

- 5. (a) Explain Haughton's tea bag procedure.
(b) Write a note on resins used in solid phase synthesis.

OR

- (c) Write the advantages and disadvantages of solid phase synthesis.
- (d) Write a note on Furka's mix and split combinatorial synthesis.

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FACULTY OF SCIENCE
M. Sc. (CHEMISTRY) IV SEMESTER (CBCS R-16 OLD) EXAMINATIONS, JULY 2025
DRUG DESIGN AND DRUG DISCOVERY
(ORGANIC CHEMISTRY SPECIAL)
PAPER-II

Time: 3Hrs]

[Max. Marks: 80

SECTION –A (4 x 5 = 20 Marks)

1. Answer all the questions

- a) Define disease and bioassay.
- b) Describe the Chain homologation and branching.
- c) What is Lipinski's rule of five? Explain.
- d) Write a note on Cartesian coordinates and internal coordinates.

SECTION –B (4 x 15 = 60 Marks)

Answer all the questions

2. a) Explain about i) Occupancy theory ii) induced – fit theory.
b) Discuss the principles involved in designing of Salbutamol.

OR

- c) Explain the drug discovery without lead. Discuss examples.
- d) Explain in detail about i) Pharmacokinetics ii) Pharmacodynamics.

3. a) Discuss the SAR Studies of Taxol.
b) Describe the different stages involved in the lead discovery of Captopril.

OR

- c) Explain the lead discovery of Salbutamol.
- d) Explain i) Bioisosterism ii) Extension of structure.

4. a) Describe the Significance of Topliss Scheme.
b) Write a note on Craig's Plot in QSAR studies

OR

- c) Explain about Steric parameter (E_s).
- d) Discuss the linear and non linear relationship between biological activity and hydrophobicity constant

5. a) Explain the molecular docking approaches with examples.
b) Discuss the molecular docking applications.

OR

- c) Define and explain bond angle and dihedral angle.
- d) Describe energy minimizations and modelling ligands for known receptors.

★★★★★

502/JULY25/IV-B

FACULTY OF SCIENCE
M. Sc. (BOTANY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PLANT MOLECULAR BIOLOGY
PAPER - II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Totipotency.
- b Gene Knockout Technology.
- c Microprojectile Gun.
- d Single Cell Protein.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Describe the various steps involved in another culture.

OR

B Write about somoclonal variation and synthetic seeds.

3 A Explain Southern Blotting with suitable diagrams.

OR

B Discuss about vectors, restriction endonucleases and DNA ligases in detail.

4 A Write about Sanger's method of gene sequencing.

OR

B Explain the importance of germplasm storage and cryopreservation.

5 A Explain the various steps of PCR.

OR

B Discuss on the microbial production of vitamins and alcohol.

★★★★★

504/JULY25/IV-B

FACULTY OF SCIENCE
M. Sc (COMPUTER SCIENCE) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
OBJECT ORIENTED ANALYSIS AND DESIGN
PAPER - II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write a short note on bringing order to chaos.
- b Explain briefly the nature of a Class.
- c List out the benefits of Object-Oriented Development.
- d Write a short note on post-transition in Control System-Traffic Management.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A What is Complexity? Discuss in detail about organized and disorganized complexity.

OR

- B Explain in detail the Foundations and Elements of Object Model.

- 3 A Discuss in detail the nature of an Object and Relationship among Objects.

OR

- B Explain in detail about Package Diagrams with an example.

- 4 A Explain in detail about Use case and Sequence Diagrams with an example.

OR

- B Write a detailed note on Release Management, Quality Assurance and Metrics.

- 5 A Discuss in detail about Satellite-based Navigation.

OR

- B Write a detailed note on Web Application – Vacation tracking System.

★★★★★

FACULTY OF SCIENCE
M. Sc (FOOD SCI. & TECHNOLOGY) IV SEM (CBCS) EXAMINATIONS, JULY 2025
FOOD PRODUCT DEVELOPMENT AND ENTERPRENUERSHIP
PAPER -II

Time: 3 Hrs]

[Max. Marks: 80

SECTION-A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Explain the concept of product development.
- b Write about product design.
- c Explain sources of micro entrepreneurship.
- d Explain product life cycle

SECTION-B(4 X 15 =60 Marks)

Answer ALL questions

2 A Discuss the process of product development.

OR

B Describe the product success and failure.

3 A Describe product launch and evaluation.

OR

B Discuss in detail product strategy.

4 A Give a brief account on TSIPASS & Telangana food processing policy.

OR

B Discuss the role of entrepreneurs in economic development.

5 A Describe the consumer buying behaviour.

OR

B Describe the core concepts of marketing.

★★★★★

FACULTY OF SCIENCE
M. Sc (NUTRITION AND DIETETICS) IV SEM (CBCS) EXAMINATIONS, JULY 2025
PEDIATRIC NUTRITION
PAPER – II

Time:3 Hrs]

[Max.Marks:80

SECTION-A (4 X 5 =20 Marks)

1 Answer ALL the questions

- a Explain the factors affecting normal growth in children.
- b What are the adverse effects of diarrhoea.
- c Explain the metabolic changes in juvenile diabetes.
- d Write the dietary management for PKU.

SECTION-B(4 X 15 =60 Marks)

Answer ALL questions

- 2 A Discuss the dietary management Protein Energy Malnutrition.

OR

- B Describe the interaction of nutrition and infection with children.

- 3 A Discuss the nutritional management for patients suffering from acute diarrhoea.

OR

- B Discuss the dietary management for patients suffering from acute renal failure.

- 4 A Discuss the complications of diabetes.

OR

- B Discuss the role of nutrition and nutritional requirements for HIV infected children.

- 5 A Briefly explain the common food allergens and their manifestations.

OR

- B Discuss the dietary management MSUD & Wilsons disease.

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FACULTY OF SCIENCE
M. Sc. (MICROBIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
MEDICAL VIROLOGY AND PARASITOLOGY
PAPER - II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

- 1 **Answer ALL the questions**
- a Establishment of viral etiology
 - b Japanese encephalitis
 - c Small pox
 - d Hook worms

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Explain the detail account on prevention and control of air borne viral infections.

OR

- B Give a detail account on identification of pathogenic viruses.

- 3 A Write a detailed account on lab diagnostics of viruses transmitted by water.

OR

- B Describe the prevention and control of viruses transmitted by zoonosis.

- 4 A Explain the lab diagnostics of viruses transmitted by contact.

OR

- B Give a detail account on pathogenicity of sexually transmitted viruses.

- 5 A Explain the concept of pathogenicity and control of malaria.

OR

- B Describe the lab diagnostics of dermatomycosis and systemic mycosis.

★★★★★

526/JULY25/IV-B

FACULTY OF SCIENCE
M. Sc (ZOOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
DEVELOPMENTAL BIOLOGY
PAPER - II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Mechanism of Cell specification
- b Development of left and right axes in mammals.
- c Haematopoiesis
- d Homologous pathways importance

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Write in detailed functions of genes in animal developments.

OR

- B Describe the development patterns of Protista and Metazoans.

- 3 A Explain the structures and recognition aspects of gametes in development

OR

- B Write an essay on genetics of axis specification in Drosophila.

- 4 A Explain in detail tetrapod limb development with illustrations.

OR

- B Give an account on concept of stem cells and their pluripotency in blood cells.

- 5 A What are Hox genes? Add a note on their descent and modifications.

OR

- B Write the teratogen principles, agents and their disadvantages.

★★★★★

506/JULY25/IV-B

FACULTY OF SCIENCE
M. Sc (STATISTICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
TIME SERIES ANALYSIS
PAPER –II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a What is white noise process? Explain it with a suitable example.
- b Define moving average model of order q and write the model when $q=2$.
- c Explain what do you understand by linear non-stationary model?
- d What is a residual? Explain its use in diagnostic checking?

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Obtain the estimators of auto-covariance and auto-correlation functions and standard error of estimator of Auto-correlation?

OR

- B Define the spectral density function? Write its importance, merits demerits? Also explain how can you obtain the estimate of the spectrum?

- 3 A Derive the Auto correlation function for the AR(q) model. Hence write the conditions for AR(1) model?

OR

- B Derive the Invertibility conditions for the MA(q) model. Hence write the conditions for MA(2)

- 4 A Explain in detail about the stages of model identification

OR

- B (i) Write and explain three explicit forms for the ARIMA(p,d,q) model?
(ii) Write the difference equation form of ARIMA model?

- 5 A Explain in detail diagnostic checking process of time series models?

OR

- B Explain a method of estimating the probability limits of the forecast.

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FACULTY OF SCIENCE
M. Sc. (MATHEMATICS) IV SEM (CBCS) EXAMINATIONS, JULY 2025
LEBESGUE MEASURE AND INTEGRATION
PAPER – II

Time:3 Hrs]

[Max. Marks: 80

SECTION-A (4 X 5 =20 Marks)

1 Answer ALL the questions.

- a Prove that if A and B are two sets in A with $A \subseteq B$, then $m(A) < m(B)$.
- b Suppose a function f has a measurable domain and is continuous except at a finite number of points. Is f necessarily measurable?
- c Let E have measure zero. Show that if f is a bounded function on E .
- d Show that there is a strictly increasing function on $[0, 1]$ that is continuous only at the irrational numbers in $[0, 1]$.

SECTION-B (4 X 15 = 60 Marks)

Answer ALL the questions.

- 2 A (i). Let B be the set of rational numbers in the interval $[0, 1]$, and let $\{I_k\}_{k=1}^n$ be a finite collection of open intervals that covers B . Prove that $\sum_{k=1}^n m^*(I_k) \geq 1$.
(ii). Prove that if $m^*(A) = 0$, then $m^*(A \cup B) = m^*(B)$.

OR

- B (i). Prove that if a σ -algebra of subsets of $\mathbf{R}$ contains intervals of the form (a, ∞) , then it contains all intervals.
(ii). Show that every interval is a Borel set.

- 3 A Define semisimple function. Let f be any measurable function on E . Show that there is a sequence of semisimple functions $\{f_n\}$ on E that converges to f uniformly on E .

OR

- B (i). Show that the conclusion of Egoroff's Theorem can fail if we drop the assumption that the domain has finite measure.
(ii). Prove the extension of Lusin's Theorem to the case that f is not necessarily real-valued, but may be finite a.e.

- 4 A (i). Let f be a bounded measurable function on a set of finite measure E . Then f is integrable over E .

(ii). Let E be a set of measure zero and define $f = \infty$ on E . Show that $\int_E f = 0$.

OR

- B (i). Show that the Monotone Convergence Theorem may not hold for decreasing sequences of functions.

(ii). Let f be a nonnegative measurable function on $\mathbf{R}$. Show that $\lim_{n \rightarrow \infty} \int_{-n}^n f = \int_{\mathbf{R}} f$.

- 5 A State and prove Lebesgue's Theorem.

OR

- B (i). Define $f(x) = \sin x$ on $[0, 2\pi]$. Find two increasing functions h and g for which $f = h - g$ on $[0, 2\pi]$.

(ii). Show that both the sum and product of absolutely continuous functions are absolutely continuous.

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FACULTY OF ARTS
M.A (Urdu) IV Semester Examination (CBCS)

دوسرا پرچہ (لازمی) Core Paper - II

اردو ادب کی تحریکیں (Urdu Adab Ki Tahreeken)

[Time : 3 Hours]

Answer ALL the questions

Max Marks : 80

Section - A

(5 x 4 = 20)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے چار نشانات ہیں۔ ہر جواب پندرہ سطروں میں تحریر کیا جائے۔

1. ایہام گوئی سے کیا مراد ہے مثالوں سے واضح کیجیے۔

2. اردو شاعری پر انجمن پنجاب کے مشاعروں کے اثرات پر روشنی ڈالیے۔

3. اردو تنقید پر ترقی پسند تحریک کے اثرات کی وضاحت کیجیے۔

4. حلقہ ارباب ذوق کے قیام اور ابتدائی حالات پر روشنی ڈالیے۔

5. مابعد جدیدیت کے پس منظر کی وضاحت کیجیے۔

Section - B

(5 x 12 = 60)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ نشانات مختص ہیں۔ ہر سوال کا جواب چار صفحات سے زیادہ نہ ہو

6. (A) ”اردو میں ایہام گوئی“ کے موضوع پر جامع مضمون تحریر کیجیے۔ یا

(B) رجحان، تحریک اور دبستان کے فرق کو واضح کیجیے۔

7. (A) سرسید اور ان کے رفقا کی علمی وادبی خدمات کا احاطہ کیجیے۔ یا

(B) اردو ادب پر علی گڑھ تحریک کے اثرات کی نشاندہی کیجیے۔

8. (A) ترقی پسند تحریک کے ادبی نظریات اور مبنی فیسٹو کی وضاحت کیجیے۔ یا

(B) اردو افسانے اور شاعری پر ترقی پسند تحریک نے کیا اثرات مرتب کیے۔ تفصیل سے لکھیے۔

9. (A) اردو کے اہم جدیدیت پسند شعرا کا تعارف کرایئے۔ یا

(B) واضح کیجیے کہ جدیدیت، ترقی پسند تحریک کی توسیع تھی یا اس کا رد۔

10. (A) اردو میں مابعد جدید افسانے کا محاسبہ کیجیے۔ یا

(B) مابعد جدیدیت سے کیا مراد ہے؟ اس کے امتیازی خصوصیات کیا ہیں؟ واضح کیجیے۔

FACULTY OF ARTS
M. A (TELUGU) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ఆధునిక తెలుగు కవిత్వం - II

పేపర్ - II

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (5 X 4 = 20 మార్కులు)

- 1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి
- ఎ ప్రణయ కవిత్వము
- బి అక్కిరాజు రమాపతి రావు
- సి విశ్వనాథ సత్యనారాయణ
- డి విప్లవ కావ్యం
- ఇ బోయి భీమన్న

సెక్షన్ - బి (5 X 12 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

- 2 ఎ నవ్య కవిత్వ లక్షణాలను సోదాహరణంగా వివరించండి.

లేదా

- బి అతి నవ్యకవితా ధోరణులను సోదాహరణంగా విశ్లేషించండి

- 3 ఎ ఆధునిక కవిత్వంలో దేశీయతను గురించి సంపత్కుమార అభిప్రాయాలను చర్చించండి

లేదా

- బి ప్రజాస్వామ్య కవితా లక్షణాలను పాఠ్యభాగం ఆధారంగా వివరించండి

- 4 ఎ గిరికుమారుని ప్రేమ గీతాలు లోని కులపాలికా ప్రణయాన్ని వివరించండి

లేదా

- బి సౌభద్రుని ప్రణయ యాత్రలో నాయని సుబ్బారావు కవితాశైలిని వివరించండి

- 5 ఎ కర్పూర వసంత రాయలులోని దేశభక్తిని పరిచయం చేయండి

లేదా

- బి నాదేశం నాప్రజలు ఆధారంగా శేషేంద్ర కవితా వ్యక్తిత్వాన్ని విశ్లేషించండి

- 6 ఎ గుడిసెలు కాలిపోతున్నాయ్ ద్వారా బోయిభీమన్న కవితా తత్వాన్ని వివరించండి

లేదా

- బి శతాంకుర ఆధారంగా సుప్రసన్న తాత్త్వికతను విశ్లేషించండి

★★★★★

FACULTY OF ARTS
M. A (ENGLISH) IV SEMESTER (CBCS R-23 NEW) EXAMINATIONS, JULY 2025
LITERARY THEORY
PAPER- II

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION-A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Write a short note on Schools of Feminism?
- B How does Showalter define the role of gynocriticism in feminist literary theory?
- C How does Trilling describe Freud's view of the artist and the creative process?
- D What does Barthes mean by "the death of the author"?
- E What is the main goal of Rueckert's experiment in ecocriticism?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

2 A Discuss the key principles of Marxism as a political and economic ideology?

OR

B What are the fundamental differences between structuralism and poststructuralism? Discuss with examples?

3 A Examine the importance of gendered language and experience in Showalter's *Towards a Feminist Poetics*?

OR

B How does Edmund Wilson assess the relationship between literature and ideology in a Marxist context? Illustrate with examples from the essay?

4 A Trilling believes Freud's theories enrich the interpretation of tragedy and classical literature in *Freud and Literature*? Evaluate.

OR

B Genette views that structuralism seeks to uncover the underlying rules rather than interpret individual meanings of literary texts Structuralism and Literary Criticism? Evaluate.

5 A How does *The Death of the Author* reflect poststructuralist concerns about language, meaning, and subjectivity? Explain.

OR

B Discuss the significance of the concept of representation in Spivak's *Can the Subaltern Speak*?

6 A Critically examine Namvar Singh's concept of *Decolonising the Indian mind*?

OR

B Rueckert proposes a connection between ecological science and literary criticism in *Literature and Ecology*? Discuss.

009/JULY25/IV-B(O)

FACULTY OF ARTS
M. A. (ENGLISH) IV SEM (CBCS-OLD) EXAMINATIONS, JULY 2025
AMERICAN LITERATURE II
PAPER- II

Time: 3 Hrs]

[Max.Marks:80

SECTION-A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Write a short note on Multiculturalism?
- B Bring out the dramatic element in Robert Frost's *Home Burial*?
- C What is the importance of the character Owl eyes in *The Great Gatsby*?
- D Sketch the character of Nick in *Who's Afraid of Virginia Woolf*?
- E Write a short note on the symbolic dimension of the word "garden" in Alice Walker's *In Search of Our Mothers' Garden*?

SECTION – B (5 X 12 = 60 Marks)
Answer ALL the following questions

- 2 A Comment on the use of Realism in American Literature?
OR
B Explain the concepts of race and ethnicity in the context of America?
- 3 A Consider Frost's treatment of nature in the poem's prescribed for your study?
OR
B Write an essay on the main idea of Wallace Steven's *Thirteen Ways of Looking at a Blackbird*?
- 4 A Comment on the symbolic dimension of Hemingway's *The Old Man and the Sea*?
OR
B Discuss *Seize the Day* in terms of oppositions and doubles?
- 5 A *A Raisin in the Sun* is centered on the younger family's dreams? Discuss.
OR
B Bring out the thematic significance of August Wilson's *The Piano Lesson*?
- 6 A Write an essay on the theme of love in Bernard Malamud's *The Magic Barrel*?
OR
B Summarize Issac Asimov's *Bicentennial Man*?

★★★★★

FACULTY OF SOCIAL SCIENCES
M. A. (SOCIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SOCIAL ANTHROPOLOGY
PAPER –II

Time: 3 Hours]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer ALL of the following

- a) Anthropology and Economics
- b) Assimilation
- c) Kinship
- d) Animatism
- e) Tribal Justice

SECTION – B (5 × 12 = 60 Marks)
Answer ALL questions

2. A) Discuss the characteristics of tribal society.

OR

B) Explain the relationship of Anthropology with other Social Sciences with their similarities and differences.

3. A) Define Animism and Totemism their significance in Tribal religion

OR

B) Explain the concept of cultural diffusion.

4. A) Discuss the processes of acculturation and assimilation with relevant examples.

OR

B) Describe Lineage, Descent and alliance concepts in Anthropology .

5. A) What is Totemism ? give importance of it in Tribal Society.

OR

B) Explain forms of Tribal Economies and discuss substantivist approaches

6. A) Analyze the impact of displacement on tribal communities in India

OR

B) Write an essay on the Tribal Law and Justice in India.

★★★★★

**FACULTY OF ARTS AND SOCIAL SCIENCES
M.S.W IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
COUNSELING THEORY AND PRACTICE
PAPER - II**

Time:3 Hrs]

[Max.Marks:80

SECTION-A (5 X 4 = 20 Marks)

- 1 **Answer ALL the questions**
- a Paraphrasing
 - b Gestalt
 - c Systematic desensitization
 - d Counseling for child bearing and rearing
 - e SOLER

SECTION-B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Explain the meaning of counseling and its principles.

OR

- B Discuss about the techniques of counseling.

- 3 A Elaborate on Egan's Skilled Helper model of counseling.

OR

- B Discuss about client centered therapy of counseling.

- 4 A Illustrate the various techniques adopted in behaviour modification.

OR

- B Discuss in detail about Transactional Analysis.

- 5 A Analyse the growing need of counseling adolescents.

OR

- B Discuss about geriatric counseling and its importance.

- 6 A Discuss about the role of supervision in counseling.

OR

- B Explain the ego states in psycho analytical theory.

★★★★★

Time: 3 Hrs]

[Max. Marks: 80

SECTION-A (5 X 4 = 20 Marks)

- 1 **Answer ALL the questions**
- a Ratio Interval
 - b RAM, ROM.
 - c Bivariate Analysis
 - d Measures of Central Tendency
 - e Non-Parametric Tests

SECTION-B (5 X 12= 60 Marks)

Answer ALL questions

- 2 A Discuss the role of social statistics in understanding social phenomena.

OR

B Discuss levels of measurement and their application in different types of social research studies.

- 3 A Describe Operating System. Explain the latest version of different OS.

OR

B SPSS- Explain the process of Data entry and Data defining in SPSS.

- 4 A Explain the process of Recategorization and Tabulation.

OR

B Explain Trivariate and Multivariate Analysis

- 5 A Discuss the importance of measures of Dispersion

OR

B A social work researcher collected data on the number of therapy sessions attended by ten clients in an institutional de-addiction setting and their improvement scores. The data is as follows:

Therapy Sessions: 5, 6, 8, 10, 12, 7, 9, 4, 11, 6

Improvement Scores: 15, 18, 20, 25, 28, 19, 23, 14, 27, 17

Calculate the following: a) Mean, b) Median, c) Mode, d) Range

- 6 A Explain the concept and application of the Chi-square test.

OR

B A study is conducted to determine if there is a significant difference in the average scores of school delinquency incidents reported before and after implementing a new intervention program. The data for the number of incidents in ten schools are as follows:

Before Intervention: 8, 10, 12, 9, 7, 11, 13, 10, 6, 12

After Intervention: 5, 7, 9, 6, 5, 8, 10, 6, 4, 9

Perform a T-test to determine if there is a significant difference between the mean number of incidents before and after the intervention. Use a significance level of 0.05.

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FACULTY OF SOCIAL SCIENCES
M.A (ECONOMICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ENVIRONMENTAL ECONOMICS
PAPER - II

Time: 3 Hrs]

[Max. Marks: 80

SECTION-A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Write a note on Small is beautiful.
- b Maximum sustainable yield.
- c Global environmental regulations.
- d Green National Income.
- e Vehicular pollution.

SECTION-B (5 X 12 = 60 Marks)

Answer ALL questions

2 A Describe the relationship between environment and economy.

OR

B Discuss the environmental consequences of economic development

3 A Explain the characteristics of renewable and non-renewable resources.

OR

B What is the meaning of sustainable development? What are its main features?

4 A How do pigovian taxes and subsidies help to achieve an optimum level of pollution and output?-Examine

OR

B Explain the International Environmental Conferences.

5 A Discuss the method and limitations of the Hedonistics Pricing Method of valuation.

OR

B What are the conditions under which the averted expenditure method yields satisfactory results? - Discuss

6 A Explain the situation in India with regard to Air Pollution.

OR

B Explain the functions central pollution control Board.

★★★★★

FACULTY OF COMMERCE
M.Com. IV SEMESTER(CBCS) EXAMINATIONS, JULY 2025
INTERNATIONAL BUSINESS
PAPER-II

Time: 3 Hours]

[Max. Marks: 80

SECTION A- (5 X 4 = 20 Marks)

1. Answer all the questions

- a) What are the barriers of International Business?
- b) Globalisation.
- c) WTO.
- d) Trade Blocks
- e) Foreign Exchange markets.

SECTION B – (5 X 12 = 60 Marks)

Answer ALL the questions

2. a) What is International business? Explain the drivers for growth of International Business

(OR)

b) What are the Modes of entry into International Business?

3. a) Briefly discuss the role of International economic reforms on globalisation.

(OR)

b) What is Technological environment? Discuss about Technology transfer.

4. a) Briefly discuss the functions and objectives of IMF.

(OR)

b) Explain the organisation structure and objectives of World Bank.

5. a) What is MNC? Explain growth and organisation structure of MNCs.

(OR)

b) What is foreign direct investment? Explain the impact of FDI in Indian business Scenario.

6. a) Explain International Financial Management Strategies for global business management.

(OR)

b) Briefly explain the issues in International Risk management strategies.

★★★★★

FACULTY OF COMMERCE
M.Com. (FINANCIAL ACCOUNTING) IV SEMESTER (CBCS) EXAMINATIONS JULY 2025
FINANCIAL SERVICES MANAGEMENT
PAPER - II

Time: 3 Hours]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer all the following:

- a) Fund-based services
- b) SEBI guidelines on merchant banking
- c) Types of mutual funds
- d) Venture capital vs. lease financing
- e) Factoring vs. forfeiting

SECTION - B (5 × 12 = 60 Marks)

2. a) Explain the scope and classification of financial services.

(OR)

- b) Discuss the problems and prospects of the financial services sector in India.

3. a) What are the functions and qualities of merchant bankers?

(OR)

- b) Explain the SEBI regulations and code of conduct for merchant bankers in India.

4. a) Discuss the various types and organization of mutual funds in India.

(OR)

- b) Explain the concept of Net Asset Value and performance evaluation of mutual funds.

5. a) Define venture capital financing. Discuss its features and scope.

(OR)

- b) Explain the differences between lease vs. buy and lease vs. hire purchase options.

6. a) What are the types and functions of factoring services in India?

(OR)

- b) Examine the benefits and costs of forfeiting in Indian financial markets.

★★★★★

411/JULY25/IV-B

FACULTY OF COMMERCE
M.COM (INSURANCE & BANKING) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ACCOUNTING IN BANKING AND INSURANCE
PAPER-II

Time: 3 Hours]

[Max. Marks: 80

SECTION –A - (5 X 4 = 20 Marks)

1. Answer ALL of the following questions

- a) Define priority sector lending
- b) What is the role of the Insurance Ombudsman in India?
- c) Feature of the Balance Sheet of a banking company
- d) What is a revenue account?
- e) General Insurance

SECTION - B – (5 X 12 = 60 Marks)

Answer ALL the questions

2. a) Explain the structure and major functions of the Reserve Bank of India (RBI).

OR

- b) What is the significance of the Banking Regulation Act, 1949? Explain its major provisions with regard to banking operations in India.

3. a) Explain the various types of life insurance policies and annuities offered by LIC.

OR

- b) Discuss the major legal provisions and important judicial pronouncements governing life insurance in India. Briefly explain the role of IRDA under the IRDA Act.

4. a) Discuss the steps involved in the preparation of final accounts of a banking company.

OR

- b) XYZ Bank Ltd., submits the following details for preparation of its profit and loss account in statutory form on 31st March 2023

Particulars	Amount (Rs.)
Interest earned	16,18,000
Interest expended	6,00,000
Other Income	3,80,000
Operating expenses	4,34,000
Provisions & Contingencies	2,20,000
Profit b/f	3,10,000

Prepare profit and loss account after providing Rs,2,00,000 for other reserves and Rs.60,000 for proposed dividend.

(Contd.....)

//2//

5. a) Describe the format and components of the Revenue Account of a life insurance company.

OR

- b) From the following information, prepare Profit and Loss Account of A.B. Life Assurance Ltd., for the year ended 31st March, 2023

Particulars	Amount (Rs.)
Balance brought forward from Revenue A/c	5,00,000
Transfer Fees	25,000
Miscellaneous Income	45,000
Part time Directors Fees	9,000
Travelling Expenses of Part Time Directors	5,000
Donations	10,000
Provision for diminution in value of investments	5,000
Provision for Tax	2,00,000
Profit & Loss A/c (as on 1-4-2022)	50,000
Interim Dividends paid	25,000
Proposed final Dividend	35,000
Dividend Distribution tax	25,000
Transfer to General Reserve	75,000
Output IGST	25,000

6. a) Explain the accounting system of general insurance companies in India. What are the statutory and subsidiary books maintained in general insurance business?

OR

- b) From the following, prepare Fire Revenue Account for the year ended 31st March 2023.

Particulars	Amount (Rs.)
Claims Paid	4,65,000
Legal Expenses regarding claims	10,000
Premiums received	12,00,000
Reinsurance Premiums	1,20,000
Commission	2,00,000
Expenses of Management	3,00,000
Provision against unexpired risk on 1-4-2019	5,20,000
Claims unpaid 1-4-2019	40,000
Claims unpaid 31-3-2020	70,000

Reserve 50% of the net premium for unexpired risk

★★★★★

FACULTY OF SCIENCE
M.Sc. (ENGG. PHYSICS & INSTR) IV SEM (CBCS) EXAMINATIONS, JULY 2025
ELECTRONIC AND PROCESS INSTRUMENTATION
PAPER - III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a What are Basic requirements of a Transducer?
- b What is Tacho meter? Mention different types of Tacho meters
- c Give the classification of Temperature measurement systems.
- d Write a short note on Venturi meter.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss the response of first order and second order systems to step and ramp inputs.

OR

- B Explain in detail about the principle and working of LVDT and PZT.

- 3 A What are the objectives of data acquisition systems (DAS)? Explain about signal conditioning of the inputs.

OR

- B What is data logger? Explain about the basic operation of a data logger and discuss the compact data logger.

- 4 A What is thermocouple? Discuss in detail radiation and optical Pyrometers.

OR

- B What is Bourdon tube? Discuss about Bourdon tube in detail and briefly explain about diaphragms used in pressure measurements

- 5 A Describe the Construction and Working of Electromagnetic and Ultrasonic Flow meters

OR

- B Explain in detail about Hydraulic and pneumatic load cells.

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509/JUL25/IV-C(A)

FACULTY OF SCIENCE
M.Sc. (PHYSICS) IV SEMESTER (CBCS) EXAMINATIONS JULY 2025
MAGNETISM AND SUPERCONDUCTIVITY
(SOLID STATE PHYSICS SPECIAL)
PAPER - III

TIME: 3 Hours]

[Max. Marks: 80

SECTION – A ($4 \times 5 = 20$ Marks)

1. Answer the following

- a. What is Curie law of paramagnetism?
- b. Write a brief note on spin exchange interaction
- c. What is superconductivity? Describe any one experimental finding of the phenomena.
- d. Briefly discuss the London's equations for superconducting current density.

SECTION – B ($4 \times 15 = 60$ Marks)

2. a) Obtain expression for paramagnetic susceptibility through quantum mechanical treatment.

(OR)

- b) Discuss the crystal field effect on Rare earth atoms level splitting.
- c) What is Magneto-caloric effect?

3. a) Discuss the Stoner band model of ferromagnetism.

(OR)

- b) Differences between ferro and ferromagnetic materials.
- c) What are CMR and GMR materials?

4. a) What is Meissner effect?

- b) Isotope effect in superconductor.

(OR)

- c) Thermodynamics of I and II order phase transition in superconductor.

5. a) Discuss in detail DC and AC Josephson junction effect in superconductor.

(OR)

- b) Discuss in brief the qualitative results of BCS theory in high TC superconductors.

★★★★★

FACULTY OF SCIENCE
M.Sc. (PHYSICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
EMBEDDED SYSTEMS AND ITS APPLICATIONS
(ELECTRONICS SPECIAL)
PAPER - III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 Answer ALL the questions

- a Differentiate between a Microprocessor and Microcontroller.
- b Write a short note on interrupts of 8051 microcontroller.
- c Explain I/O Ports of PIC Microcontroller.
- d Draw the block diagram to connect LED with a microcontroller.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A** Explain in detail about the Block diagram of 8051Microcontroller. And also Discuss about PSW register.

OR

- B** Discuss in detail about different types of addressing modes of 8051 with necessary examples.

- 3 A** Describe about arithmetic and logic instruction of 8051 microcontroller with suitable examples.

OR

- B** Write an ALP for addition of two sixteen-bit numbers and also Write an ALP for a time delay of 12 microseconds.

- 4 A** Explain in detail about the architecture of PIC **16C6X/7X** Microcontroller.

OR

- B** Explain Interrupts and Timers of PIC **16F8XX** Microcontroller

- 5 A** Discuss with necessary diagrams the interfacing of ADC, DAC with 89C51.

OR

- B** Describe how a DC motor and Stepper motor will be interfaced with any microcontroller.

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FACULTY OF SCIENCE
M. Sc. (CHEMISTRY) IV SEMESTER (CBCS), EXAMINATIONS, JULY 2025
MEDICINAL INORGANIC CHEMISTRY
(INORGANIC CHEMISTRY SPECIAL)
PAPER -III

Time: 3:00 hrs]

[Max. Marks:80

SECTION-A (4 X 5 = 20 Marks)

1. Answer ALL questions

- a) Write in brief about drug resistance DNA binding repair mechanism.
- b) Explain about mixed ligand chelation therapy of metallothionines in detoxification.
- c) What is photochemical probing? Explain the use of acridines as photochemical probes.
- d) Explain in details the structure activity relationship, anti tumour activity of Ru(II) amine complexes.

SECTION-B (4 X 15 = 60 Marks)

Answer ALL the questions

2.
 - a) Discuss about the discovery, applications and structure effect relationship of platinum complexes in cancer therapy.
 - b) Explain the biological consequences of Pt(II) drugs on DNA binding
(OR)
 - c) Discuss briefly the thermodynamic and kinetic principles and aspects related to Pt(II) complexes binding..
 - d) Write a detail note on platinum complexes in chelate therapy.
3.
 - a) Explain single ligand chelation therapy with reference to amino polycarboxylic acids Penicillamine and desferrioxamine.
 - b) Discuss the overall mechanism of action involved in the formation of activated bleomycin.
(OR)
 - c) Write in detailed about theory and mode of action of therapeutic chelating agents.
 - d) Discuss about the role of metal ions in adriamycin and tetracyclines.
4.
 - a) Explain the role of dimethyl Sulphate and Osmium tetroxide in chemical probing of DNA complexes.
 - b) Explain the importance of binding in photo reactive metal complexes.
(OR)
 - c) Explain in brief about
 - i) Immobilization methods of enzyme and their applications
 - ii) Photo physics in the absence of DNA and in the presence of DNA.
 - d) Write a short note on Platinum metal complexes as drugs and anticancer agents.
5.
 - a) Explain the role of metal induced free radical production by Organic drugs in relation in their side effects.
 - b) Explain about the intercalation model and quantitative analysis of intercalation.
(OR)
 - c) Discuss the factors that relate intercalation and medicinal activity
 - d) Discuss the DNA interactions and cleavage by Ru(II) and Rh(II) complexes.

★★★★★

503/JULY25/IV-C(D)(N)(O)

FACULTY OF SCIENCE
M. Sc. (CHEMISTRY) IV SEMESTER (CBCS – NEW & OLD) EXAMINATIONS, JULY 2025
COMPUTATIONAL CHEMISTRY & MATERIAL SCIENCE AND LASERS IN CHEMISTRY
(PHYSICAL CHEMISTRY SPECIAL)
PAPER – III

Time: 3 Hrs]

[Max. Marks: 80

SECTION-A (4 X 5 = 20 Marks)

1. Answer ALL the questions.

- a) State and explain the Slater determinant and its significance in multi-electron systems.
- b) Write a note on the α -helix and β -sheet structures in proteins.
- c) What are glass formers and glass modifiers? Give examples.
- d) Explain the principle of Q-switching in laser systems.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL the questions

2. A) Explain the Hartree–Fock method for atoms and describe the role of the Fock operator, Coulomb and exchange operators.

OR

- B) State and explain the Hohenberg–Kohn Theorems. How is the Kohn–Sham formulation of DFT derived from them?

3. A) Describe bonding and non-bonding potentials in biopolymers. Discuss hydrogen bonding and van der Waals interactions with relevant equations.

OR

- B) Explain the Corey–Pauling rules for stabilizing protein structures. Discuss conformational entropy and the Ramachandran plot.

4. A) Discuss various types of composites. Explain in detail particle-reinforced and fibre-reinforced composites.

OR

- B) Describe any three methods for preparation of solid-state materials. Include the sol-gel and hydrothermal methods.

5. A) Explain the principles of laser operation. Discuss stimulated emission, population inversion, and the working of three-level and four-level lasers.

OR

- B) Describe multiphoton spectroscopy and explain the two-photon spectra of diphenyloctatetraene.

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FACULTY OF SCIENCE
M.Sc. (CHEMISTRY) IV SEM (CBCS - NEW & OLD) EXAMINATIONS, JULY 2025
DRUG SYNTHESIS AND MECHANISM OF ACTION
(ORGANIC CHEMISTRY SPECIAL)
PAPER – III(A)

Time: 3 Hours]

[Max Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1. Answer ALL questions

- Draw and explain the structural features of the bacterial cell wall.
- Write the classification of drugs acting on genetic material.
- Draw and explain the structure of a neuron.
- Define the terms Eutomer, Distomer and Eudesmic ratio.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL the questions

2. (a) Write the synthesis and mechanism of action of Penicillin G.

- (b) Write the synthesis and pharmacology of Omeprazole.

OR

- (c) Write a note on bacterial resistance to sulfonamide drugs.

- (d) Write the structures and mode of action of Sulbactam and Clavulanic acid.

3. (a) Write the synthesis and mechanism of action of Acyclovir.

- (b) Write the structures and mechanism of action of Ofloxacin and Lomefloxacin.

OR

- (c) Write the synthesis and mechanism of action of chloroquine.

- (d) Write the synthesis of chloromycetin and the structural formulae of erythromycin.

4. (a) Write the classification of adrenergic receptors and their role in disease management.

- (b) Write the structural formulae of Tamoxifen, Tetracaine and Atenolol.

OR

- (c) Write a note on types of ion channels and explain each with an example.

- (d) Write the synthesis and pharmacological activity of Serotonin.

5. (a) Explain the importance of chirality on biological action.

- (b) Write the synthesis and pharmacological activity of Nateglinide.

OR

- (c) Write the synthesis and pharmacological activity of Levocetirizine.

- (d) Write the synthesis of Indinavir sulfate and Fluvastatin.

★★★★★

502/JULY25/IV-C(A)

FACULTY OF SCIENCE
M. Sc. (BOTANY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
APPLIED PHYCOLOGY
PAPER - III

Time:3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Single Cell Protein.
- b Enteromorpha.
- c Eutrophication.
- d Algal blooms.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Write on the perspectives and scope of algae.

OR

B Write on the different media used for algal cultures.

3 A Discuss the role of algae in aquaculture.

OR

B Explain the mass cultivation and commercial value of Porphyra.

4 A Discuss on the role of microalgae in waste water treatment.

OR

B Describe the role of algae as indicators in assessing water quality and pollution.

5 A Discuss the role of algae in agar-agar, carrageenan, and alginic acid synthesis.

OR

B Write a detailed account on biochemical taxonomy of algae.

★★★★★

504/JULY25/IV-C(A)

FACULTY OF SCIENCE
M. Sc. (COMPUTER SCIENCE) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
DISTRIBUTED SYSTEMS
PAPER – III (A)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write a short note on Threads.
- b What is Message-Oriented Communication?
- c Write a short note on Access Control in security.
- d Explain briefly about Processes in Distributed Object-based Systems.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss in detail about Architectural Styles of Distributed Systems.

OR

- B Write a detailed note on Virtualization and Code Migration.

- 3 A Explain in detail about Remote Procedure Call.

OR

- B What is Clock Synchronization? Explain in detail about Logical Clocks.

- 4 A Write a detailed note on Replica Management and Consistency Protocols.

OR

- B What is Process Resilience? Discuss in detail about Reliable Client-Server Communication.

- 5 A Discuss in detail about Fault Tolerance and Security in Distributed File Systems.

OR

- B Explain in detail about Synchronization and Fault tolerance in Distributed Object-based Systems

★★★★★

504/JULY25/IV-C(B)

FACULTY OF SCIENCE
M.Sc. (COMPUTER SCIENCE) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
CLOUD COMPUTING
PAPER – III (B)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL the questions**
- a Write a short note on types of Cloud Computing.
 - b Write a short note on Data Integrity in Cloud Computing.
 - c Explain briefly about Place of Adoption and benefits.
 - d List out benefits of MCC.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A What are the Components of Cloud Computing? Explain in detail the impact of CC on businesses.
- OR**
- B Distinguish between IaaS, PaaS and SaaS.
- 3 A Discuss in detail the Recent Trends in Cloud Computing and Standards.
- OR**
- B Explain in detail about Cloud Application Requirements and SOA for Cloud Applications.
- 4 A What are Cloud Migration Techniques? Discuss in detail phases during the migration of an application to the cloud.
- OR**
- B Discuss in detail about following:
 i) Risk Assessment and Management.
 ii) Inadequate SLA
 iii) chargeback models and methodology.
- 5 A Define AAA Model. Discuss in detail about Industry implementation for AAA and Authentication Management in the Cloud.
- OR**
- B Discuss in detail about Cloud Certifications and Audits.

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FACULTY OF SCIENCE
M.Sc. (MICROBIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
MICROBIAL BIOTECHNOLOGY
PAPER - III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Medium components for beer
- b Downstream processing of glutamic acid
- c Chlortetracycline
- d Types of vaccines

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Explain the detail account on fermentative production of industrial alcohol.

OR

B Give a detail account on fermentative production of beer.

3 A Write a detailed account on fermentative production of vitamin B12.

OR

B Describe the fermentative production of citric acid.

4 A Explain the detailed account on semi synthetic penicillins.

OR

B Give a detail account on semi synthetic tetracyclines.

5 A Explain the concept of steroid transformations.

OR

B Describe the principles of vaccine production.

★★★★★

526/JULY25/IV-C(A)

FACULTY OF SCIENCE
M.Sc. (ZOOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
FISHERIES AND AQUACULTURE
PAPER -III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Teleostei fishes
- b Productivity of waterbodies.
- c Composite fish culture
- d Protozoan diseases of fishes

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Write the definition, scope and importance of Fisheries in detail.

OR

B What is morphometry? Add a note of Taxonomic identification of freshwater fishes.

3 A Discuss about Lentic and lotic ecological aspects of water bodies.

OR

B What are physico chemical analysis methods and characteristics of waterbodies.

4 A Write the design structure and management strategies of culture ponds.

OR

B Explain the scope and importance of Integrated aquaculture.

5 A Give an account of Helminth parasites of fishes and their pathogenicity.

OR

B Write the comparison of Bacterial and fungal diseases of fishes.

★★★★★

506/JULY25/IV-C(A)

FACULTY OF SCIENCE
M.Sc. (STATISTICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
RELIABILITY THEORY
PAPER –III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 Answer ALL the questions

- a Explain cuts and paths in coherent structure?
- b Explain the concept of association of random variables?
- c Show that exponential distribution has constant failure rate function?
- d What are replacement policies? Explain.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A** Show that if X and Y are binary random variables, the covariance(X, Y) ≥ 0 implies X and Y are associated? Does this hold good for general random variables.

OR

- B** Explain the terms paths, cuts and modular decomposition of the sets in coherent structure of a system?

- 3 A** Explain IFR model, NBU and NBUE classes of the models?

OR

- B** Find the reliability of a bridge structure with five independent components with probabilities p_i for $i=1, 2, \dots, 5$?

- 4 A** What is hazard rate and mean time to failure? Explain them with suitable examples?

OR

- B** State and prove IFRA closure theorem?

- 5 A** Obtain the maximum likelihood method of estimation of a reliability function in log-normal distribution?

OR

- B** Explain the maximum likelihood method of estimation of a reliability function in Weibull model?

★★★★★

FACULTY OF SCIENCE
M.Sc. (MATHEMATICS) IV SEM (CBCS) EXAMINATIONS, JULY 2025
GRAPH THEORY
PAPER – III (A)

Time:3 Hrs]

[Max. Marks:80

SECTION-A (4 X 5 =20 Marks)

1 **Answer ALL the questions.**

- a Draw the digraph of the following relation:
“The relation $\subseteq$ on all the nonempty subsets of the set $\{0, 1, 2\}$ ”.
- b Let G be a non directed graph of order 9 such that each vertex has degree 5 or 6. Prove that at least 5 vertices have degree 6 or at least 6 vertices have degree 5.
- c Give an example of a connected plane graph such that:
(i). $|E| = 3|V| - 6$. (ii) $|E| < 3|V| - 6$.
- d Suppose there are 5 girls $G_1, G_2, \dots, G_5$ and 5 boys $B_1, B_2, \dots, B_5$. Suppose, further, that G_1 dates B_1, B_2 and B_4 ; G_2 dates B_2 and B_3 ; G_3 dates B_2 ; G_4 dates B_3 and B_5 ; and G_5 dates B_3, B_4 and B_5 then represent this information in a transport network.

SECTION-B (4 X 15 = 60 Marks)

Answer ALL the questions.

- 2 A Give an example of a nonempty set and a relation on the set that satisfies each of the following combinations of properties; draw a digraph of the relation.
 - (i). Symmetric and transitive, but not reflexive.
 - (ii). Symmetric and reflexive, but not transitive.
 - (iii). Transitive and reflexive, but not symmetric.
 - (iv). Transitive and reflexive, but not anti symmetric.
 - (v). Transitive and anti symmetric, but not reflexive.

OR

- B (i). Let R be a binary relation on A . Let $S = \{(a, b) | (a, c) \in R \text{ and } (c, b) \in R \text{ for some } c \in A\}$. Show that if R is an equivalence relation on A , then S is also an equivalence relation.
(ii). Show that if $x = 2^k$ for some nonnegative k and y is odd, then x and y are relatively prime.
- 3 A (i). Determine all non isomorphic simple non directed graphs of order 3. Do the same for those of order 4.
(ii). Prove that if $d(G) \geq 3$, where $d(G)$ is the diameter of the simple graph G , then $d(\bar{G}) \leq 3$, where $\bar{G}$ is the complement of G . then if G is isomorphic to $\bar{G}$, $d(G) = 2 \text{ or } 3$.

OR

- B (i). If G is a nontrivial tree, then prove that G contains at least 2 vertices of degree 1.
(ii). Prove that a graph G is a tree if and only if G is connected and $|V| - 1 = |E|$.

(Contd.....)

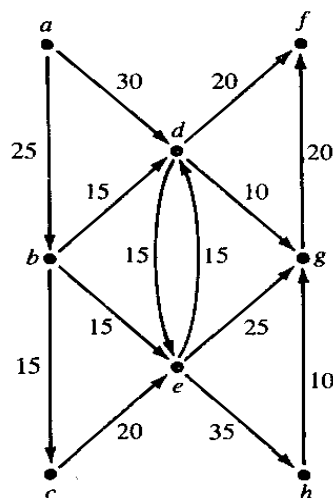
- 4 A (i). Show that a directed graph that contains a Euler circuit is strongly connected.
 (ii). Prove that for positive integers $\delta + 1$ and n , $G_{\delta+1,n}(V, E)$ has a directed Euler circuit.

OR

- B Use Grinberg's theorem to show that there are no planar Hamiltonian graphs with
 (i). Regions of degree 5, 8, and 9 with exactly one region of degree 9.
 (ii). Regions of degree 5, 8, 9, and 11 with exactly one region with degree 9.
 (iii). Regions of degree 4 and 5 and only one region of degree 4.
 (iv). Regions of degree 4, 5, and 8 and only one region of degree 4.
- 5 A If F is a flow in a transport network (G, k) and if $(X, \bar{X})$ is any S - D cut, then prove that
 (i). $|F| = F(X, \bar{X}) - F(\bar{X}, X)$, and consequently
 (ii). $|F| \leq k(X, \bar{X})$.

OR

- B Cities a, b , and c can supply 15, 25, and 45 units of merchandise, while cities f, g , and h require 20, 25, and 15 units, respectively. Transport links are illustrated in the following figure.



- (i). Draw a transport network that reflects total supply and demand.
 (ii). Find a maximal flow.
 (iii). How many units of merchandise should cities a, b , and c send, and cities f, g , and h receive so that as much merchandise as possible is transported?

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FACULTY OF ARTS
M.A (Urdu) IV Semester Examination (CBCS)

Elective Paper - III(A) تیسرا پرچہ اختیاری

(Mass Media) ماس میڈیا

[Time : 3 Hours]

Answer ALL the questions

Max Marks : 80

Section - A

- نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے پانچ نشانات ہیں۔ ہر سوال کا جواب پندرہ سطروں میں تحریر کیا جائے۔ (4 x 5 = 20)
1. ”اداریہ نگاری“ پر ایک اختصار یہ تحریر کیجیے۔
 2. ریڈیو کے رواں تبصرے (رنگ کنٹری) کے طریقہ کار کی وضاحت کیجیے۔
 3. ڈاکیومنٹری فلم سے کیا مراد ہے؟ واضح کیجیے۔
 4. ٹیلی ویژن ڈرامے پر مختصر نوٹ لکھیے۔

Section - B

- نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے پندرہ نشانات مختص ہیں۔ ہر سوال کا جواب چار صفحات سے زیادہ نہ ہو۔ (4 x 15 = 60)
5. (A) جدید ذرائع ابلاغ کی وضاحت کیجیے اور ان کی اہمیت پر روشنی ڈالیے۔
(B) خبر نگاری، فیچر اور کالم نگاری کا تفصیلی تعارف کرائیے۔
 6. (A) ریڈیو نیوز، ریڈیو فیچر اور ریڈیو ڈرامے کے بارے میں اپنی معلومات قلم بند کیجیے۔
(B) ریڈیو کی تاریخ بیان کیجیے۔
 7. (A) فلم کے آغاز و ارتقاء پر روشنی ڈالیے۔
(B) فلم کی مختلف اقسام کی وضاحت کیجیے۔
 8. (A) ٹیلی ویژن کے تعلیمی اور معلوماتی پروگراموں پر اظہار خیال کیجیے۔
(B) ہندوستان میں ٹیلی ویژن نشریات کے آغاز و ارتقاء کا جائزہ لیجیے۔

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FACULTY OF ARTS
M.A. (TELUGU) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ఆధునిక తెలుగు సాహిత్య విమర్శ 2

పేపర్ - III

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (5 X 4 = 20 మార్కులు)

1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి

- ఎ విమర్శ లక్షణాలు
- బి వెల్చేరు నారాయణరావు
- సి కావ్య కళ
- డి రమ్యలోకము
- ఇ కోవెల సుప్రసన్నాచార్య

సెక్షన్ - బి (5 X 12 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

2 ఎ ఆధునిక తెలుగు సాహిత్యవిమర్శలో వివిధ రీతుల అవసరాన్ని వివరించండి.

లేదా

బి ఆధునిక తెలుగు సాహిత్యవిమర్శ రీతులలో ఆలంకారిక విమర్శను విశ్లేషించండి

3 ఎ ఆధునిక తెలుగు సాహిత్యవిమర్శ లో ఆర్.ఎస్. సుదర్శనం ప్రత్యేకతను చర్చించండి

లేదా

బి ఆధునిక తెలుగు సాహిత్యవిమర్శ లో అభిప్రాయాలను చర్చించండి

4 ఎ తెలుగు సాహిత్యవిమర్శకు కవిత్వ తత్వ విచారం వేసిన మార్గాన్ని చర్చించండి

లేదా

బి దువ్వూరి రామిరెడ్డి రస రామణీయకత భావనను పరిచయం చేయండి

5 ఎ నన్నయ పై విశ్వనాథ చెప్పిన అభిప్రాయాలను సమీక్షించండి

లేదా

బి శ్రీ శ్రీ సాహిత్య విమర్శ తీరును, వస్తు దిక్పథాన్ని విశ్లేషించండి

6 ఎ సుప్రసన్న సాహిత్య వివేచన లో చర్చించిన అంశాలను వివరించండి

లేదా

బి కళాతత్వశాస్త్ర విమర్శ లక్షణాలను వివరించండి

★★★★★

009/JULY25/IV-C(A)(N)

FACULTY OF ARTS
M.A. (ENGLISH) IV SEM (CBCS-NEW) EXAMINATIONS, JULY 2025
STRUCTURE OF MODERN ENGLISH
PAPER- III (A)

Time: 3 Hrs]

[Max.Marks:80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the following questions**

- A Write a short note on the main periods in the development of English grammar?
- B What is one major criticism of traditional grammar by modern linguists?
- C Write a short note on the function of modal verbs within a verb phrase?
- D What is the difference between coordination and subordination?

SECTION – B (4 X 15 = 60 Marks)

Answer ALL the following questions

- 2 A Write an essay on the major grammatical changes that took place during the Middle English period?

OR

- B Discuss the key differences between prescriptive and descriptive grammar with suitable examples?

- 3 A Evaluate the weaknesses of traditional grammar in the context of second language teaching?

OR

- B Discuss the components of a noun phrase and their grammatical functions?

- 4 A Explain the structure of a verb phrase with appropriate examples?

OR

- B How does Transformational Generative Grammar differ from traditional and structural grammar approaches? Explain.

- 5 A Explain the concept of Immediate Constituent (IC) Analysis and its significance in syntactic study?

OR

- B Compare and contrast coordination and apposition in terms of structure and function.

★★★★★

009/JULY25/IV-C(B)(N)

FACULTY OF ARTS
M.A. (ENGLISH) IV SEM (CBCS-NEW) EXAMINATIONS, JULY 2025
DALIT LITERATURE
PAPER- III (B)

Time:3 Hrs]

[Max.Marks:80

SECTION-A (4 X 5 = 20 Marks)

1 **Answer ALL the following questions**

- A Write a short note on Casteism?
- B How does Jashuva depict the suffering of the oppressed?
- C What is the significance of the title *Karukku* in relation to Bama's life?
- D How does Ambedkar differentiate social reform and political reform in *Annihilation of Caste*?

SECTION – B (4 X 15 = 60 Marks)

Answer ALL the following questions

- 2 A Write an essay on the historical roots and contemporary relevance of untouchability in India?

OR

- B Discuss the intersectionality of caste, class, and gender in Dalit feminist discourse.

- 3 A Critically analyze Jashuva's poem *I Was One of Them* as a voice of resistance and assertion in Dalit literature?

OR

- B Baburao Bagul's *Revolt* portrays resistance against caste-based oppression? Discuss.

- 4 A How does Bama use language and structure in *Karukku* to break literary conventions and assert Dalit identity?

OR

- B Write an essay on the use of realism and autobiographical elements in *Kakka: A Dalit Novel*?

- 5 A Critically examine Ambedkar's arguments for the complete annihilation of the caste system in India?

OR

- B Discuss the significance of the title *Joothan* and how it symbolizes systemic humiliation and social exclusion?

★★★★★

009/JULY25/IV-C(O)

FACULTY OF ARTS
M.A. (ENGLISH) IV SEM (CBCS-OLD) EXAMINATIONS, JULY 2025
INDIAN WRITING IN ENGLISH - II
PAPER- III

Time: 3 Hrs]

[Max.Marks:80

SECTION - A (5 X 4 = 20 Marks)

1 Answer ALL the following questions

- A Write a short note on Subalternity?
- B What is the central idea of the poem *Scratch* by Arun Kolatkar?
- C What is the role of Hindu gods in *Midnight's Children*?
- D Sketch the character of Shaila Bhavé?
- E How does Dattani portray mother-daughter relationship in *Final Solutions*?

SECTION – B (5 X 12 = 60 Marks)
Answer ALL the following questions

- 2 A What is Nation and Nationalism? Explain in detail.
OR
B Write an essay on Identity Movements?
- 3 A Write in detail on the central theme of A.K. Ramanujan's *Small Scale Reflections on a Great House*?
OR
B Write an essay on the main theme of Arun Kolatkar's poems prescribed for your study?
- 4 A Discuss *Midnight's Children* as a postcolonial novel?
OR
B Write an essay on the theme of marriage in Shashi Deshpande's *The Binding Vine*?
- 5 A Write in detail on the theme of cultural identity in *The Management of Grief*?
OR
B Compare and Contrast the lives of Mrs. Sen and Mrs. Dad in Jhumpa Lahiri's *Interpreter of Maladies*?
- 6 A Write an essay on the theme of class and gender in Asif Currimbhoy's *Goa*?
OR
B Write an essay on the plight of women in Mahesh Dattani's *Final Solutions*?

★★★★★

FACULTY OF SOCIAL SCIENCES
M. A (SOCIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SOCIOLOGY OF HEALTH
PAPER – III

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION-A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Health education
- b Positive health concept
- c Nutrition and health
- d Mention any one health insurance scheme
- e Health Planning

SECTION-B (5 X 12 = 60 Marks)

Answer ALL questions

2 A Define Sociology of health and discuss its scope.

OR

B What are the communication methods in health education and explain its importance.

3 A What is community health concept and describe the five basic concepts of health.

OR

B Which factors that influence population's health status of determinate of health? Explain.

4 A Briefly write about health services concept and its objectives

OR

B Present the preventive measures for environmental sanitation.

5 A Examine the health care service and ayurveda system of medicine in India.

OR

B Explain about the corporate hospitals and their health services

6 A 'Health for All' National health strategy in India-Discuss.

OR

B Write about the Bhore Committee's recommendations for National health care services.

★★★★★

FACULTY OF ARTS AND SOCIAL SCIENCES
M.S.W IV SEMESTER (CBCS-NEW & OLD) EXAMINATIONS, JULY 2025
URBAN COMMUNITY DEVELOPMENT-II
PAPER – III (A)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL the questions**
- a Types of Unorganized sector
 - b Industrial Pollution
 - c Composition of UDA
 - d Micro Planning

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Explain the problems in organizing the urban poor

OR

- B What is the status in providing shelter and social amenities to the urban poor of 3rd world countries?

- 3 A Write about climate change and environmental problems in the areas of land and water resources

OR

- B Explore the role of social worker in solving the urban problems related to environment

- 4 A Write the evolution of Urban Development Authority

OR

- B Explain the functions and problems of Urban Development Authorities

- 5 A What do you understand by Micro-Macro Development

OR

- B Discuss the need and importance of People's Participation in all levels

★★★★★

FACULTY OF SOCIAL SCIENCES
M.S.W. IV SEMESTER (CBCS R-22 NEW) EXAMINATIONS JULY 2025
PSYCHIATRIC SOCIAL WORK - II
PAPER - III (B)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

- 1 **Answer ALL the questions**
- a Abnormal Behaviour
 - b Narcissistic Personality disorder
 - c Anorexia Nervosa
 - d ADHD

SECTION - B (4 X 15 =60 Marks)

Answer ALL questions

- 2 A Differentiate Normal & abnormal behaviour

OR

- B Explain the functional theory in social work practice and its relevance to mental health settings.

- 3 A Evaluate the causes and treatment of Paranoid Personality Disorder.

OR

- B Meditation as a supplementary tool to address disorders- discuss

- 4 A Describe the characteristics and treatment approaches for Voyeurism and Exhibitionism.

OR

- B Explain eating disorders

- 5 A Explain possible interventions related to Autistic disorders

OR

- B Explain Cognitive Behavioural Therapy

★★★★★

313/JULY25/IV-C(A)

FACULTY OF SOCIAL SCIENCES
M.A. (ECONOMICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ECONOMETRICS-II
PAPER – III (A)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL the questions**
- a Ordinary Least squares method
 - b Features of Koyack transformation
 - c Spurious regression
 - d Estimation of MPC

SECTION-B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Explain the Indirect Least squares method.

OR

- B Discuss the Methods of estimating simultaneous equation system.

- 3 A Explain the adaptive expectation model.

OR

- B Discuss the Auto regressive Distributed Lag model.

- 4 A Describe the Granger and Sims tests.

OR

- B Discuss the Random walk model procedure with a suitable example.

- 5 A Explain the estimation of short run and long run price elasticities.

OR

- B Discuss the Cobb-Douglas production function analysis.

★★★★★

313/JULY25/IV-C(B)

FACULTY OF SOCIAL SCIENCES
M.A. (ECONOMICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
TELANGANA ECONOMY
PAPER – III (B)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write note on GSDP
- b Briefly write about Mission Kakatiya
- c Write a short note on Land ceilings
- d What is Service sector?

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Explain the share of agriculture and allied sector in GSDP

OR

B Describe the growth and development in Telangana state.

3 A Explain the irrigation sources of Telangana state.

OR

B Elucidate the problems of dry land agriculture.

4 A Explain the land alienation in scheduled areas.

OR

B Analyze the land reforms in Telangana state.

5 A Explain the industrial development and policy in Telangana state.

OR

B Examine the structure of growth of industrial sector.

★★★★★

408/425/JULY25/IV-C(N)(O)

FACULTY OF COMMERCE
M.COM (Gen & FA) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
FINANCIAL DERIVATIVES
PAPER-III

Time: 3 Hours]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer ALL of the following questions

- a) Clearing House
- b) What is market Order?
- c) What is option price?
- d) What is Equity swap?
- e) Risk Management

SECTION - B (5 X 12 = 60 Marks)

Answer ALL the questions

2. a) What do you mean by derivative? Discuss various types of Derivatives.

OR

- b) Explain the importance of clearing house in settlement of derivative transactions.

3. a) Define Forward contract. Discuss its features with suitable examples.

OR

- b) Calculate forward price from the following data:

- i. A forward contract is entered into to purchase a coupon (interest) bearing bond.
- ii. Current price of the Bond Rs. 1,00,000
- iii. Coupon rate = 9% p.a.
- iv. Interest is payable semi-annually.
- v. Interest is payable after 3 months and 9 months respectively from the date of entering into the forward contract.
- vi. The maturity period of the forward contract is 10 months
- vii. Risk free interest = 6% p.a.
- viii. Spot price of the bond is Rs. 95,000.

4. a) What is an option? Briefly discuss the various types of options.

OR

- b) From the following information, calculate call option value:

- Current Market Price (s) :Rs.100 per share
 - Exercise Price (X) :Rs.80 per share
 - Volatility of share price (s) :30%
 - Risk free interest rate (r) : 10% p.a.
 - Time to expiration (T) : 3 months
- Use Black-Scholes formula.

5. a) Define the concept "Swap". Briefly discuss the features of swap contract.

OR

- b) Discuss various types of interest rate swaps with suitable examples.

6. a) What is SEBI? Explain the role of Securities Exchange Board of India on derivative market.

OR

- b) Discuss various recommendations of L.C. Gupta Committee on derivatives trading in India.

★★★★★

408/JULY25/IV-C(C)(N)

FACULTY OF COMMERCE
M.COM. (BANKING & INSURANCE) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
BANKING OPERATIONS AND PROCEDURES
PAPER-III (C)

Time: 3 Hours]

[Max . Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer ALL the questions

- a) Insurance.
- b) Liabilities of banker.
- c) Recurring deposit account.
- d) Minor.
- e) Promissory Note.

SECTION B – (5 X 12 = 60 Marks)

Answer ALL the questions

- 2. a) Describe the role of commercial banks in development of Indian economy.
(OR)
b) Discuss various types and merits of mutual funds.
- 3. a) Explain the relationship between the banker and customer.
(OR)
b) Describe the obligations to maintain secrecy of bank accounts by the banker.
- 4. a) Briefly discuss about the savings account and current account.
(OR)
b) What are the legal aspects relating to the foreign currency accounts scheme?
- 5. a) Give the procedure to operate Joint accounts of Partnership Business.
(OR)
b) What are the guidelines to operate joint accounts of joint Hindu family?
- 6. a) What is Negotiable Instrument? Explain various types of negotiable instruments.
(OR)
b) What is cheque? Explain legal provisions of cheque related transactions.

★★★★★

410/JULY25/IV-D(O)

FACULTY OF COMMERCE
M.COM (Computer Applications) IV SEMESTER (CBCS) EXAMINATION, JULY 2025
RELATIONAL DATABASE MANAGEMENT SYSTEMS

PAPER-III

Time: 3 Hrs]

[Max. Marks: 60

SECTION - A (5 X 2 = 10 Marks)

1) Answer ALL the following questions

- a) Who are the Database Users?
- b) What is Data Modeling?
- c) What are Relational tables?
- d) What is Relational Database Language?
- e) Define Transaction

SECTION - B (5 X 10 = 50 Marks)

Answer ALL questions

2. a) What do you mean by Database? Describe the advantages of using DBMS.

OR

b) Explain in detail classification of DBMS.

3. a) Write about Entity types, Entity sets, attributes and keys.

OR

b) Explain the ER Model Concepts.

4. a) What is Relational Model? Give Suitable example.

OR

b) State the use of Projection operator of Relational Algebra with example.

5. a) What is Data definition in SQL? Explain Queries in SQL.

OR

b) Explain Aggregate functions, GROUP BY, HAVING Clause with example

6. a) What is transaction process concept? Explain desirable properties of transactions.

OR

b) Define Concurrency control. Explain different concurrency control.

★★★★★

411/JULY25/IV-C

FACULTY OF COMMERCE
M.COM (INSURANCE & BANKING) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
RISK MANAGEMENT IN BANKING
PAPER-III

Time: 3 Hours]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer ALL of the following questions

- a) What does CAMEL stand for in banking performance analysis?
- b) Define peer group comparison in the context of banking performance.
- c) What do you mean by NPA?
- d) What is the difference between risk and uncertainty?
- e) hat is the objective of risk management in public utilities?

SECTION - B (5 X 12 = 60 Marks)

Answer ALL the questions

2. a) Define Asset Liability Management (ALM). Explain its meaning and significance.

OR

- b) Explain the concept of Return on Equity (ROE). How can banks manage the trade-off between risk and return while ensuring profitability, liquidity, and solvency?

3. a) Explain the alternative models used for evaluating bank performance. How do they differ from traditional GAAP-based performance evaluation?

OR

- b) What is the significance of managing market risk and analyzing non-interest income and expenses in evaluating bank performance?

4. a)What is capital adequacy and explain its importance in the financial health of banks.

OR

- b) Describe the key recommendations of Basel II. How have these recommendations been implemented in India through RBI guidelines?

5. a) Explain the process of risk analysis and management. What are the key steps involved in developing an effective risk management strategy?

OR

- b) Differentiate between operational risks, financial risks, and strategic risks. Provide examples.

6. a) Discuss the role of functional management (finance, operations, HR, etc.) in implementing effective risk management within a corporate structure.

OR

- b) What are the steps involved in the risk management process? Explain each step with reference to both personal and organizational risk management.

★★★★★

009/JULY25/IV-C(B)(N)

FACULTY OF ARTS
M.A. (ENGLISH) IV SEM (CBCS-NEW) EXAMINATIONS, JULY 2025
DALIT LITERATURE
PAPER- III (B)

Time:3 Hrs]

[Max.Marks:80

SECTION-A (4 X 5 = 20 Marks)

1 **Answer ALL the following questions**

- A Write a short note on Casteism?
- B How does Jashuva depict the suffering of the oppressed?
- C Write bio note on Imayam
- D How does Ambedkar differentiate social reform and political reform in *Annihilation of Caste*?

SECTION – B (4 X 15 = 60 Marks)

Answer ALL the following questions

- 2 A Write an essay on the historical roots and contemporary relevance of untouchability in India?

OR

- B Discuss the intersectionality of caste, class, and gender in Dalit feminist discourse.

- 3 A Critically analyze Jashuva's poem *I Was One of Them* as a voice of resistance and assertion in Dalit literature?

OR

- B Analyse the dalit consciousness through Sukertharani poems

- 4 A Write a critical note on Imayam's novel *Pethavan: the begetter*

OR

- B Write an essay on the use of realism and autobiographical elements in *Kakka: A Dalit Novel*?

- 5 A Critically examine Ambedkar's arguments for the complete annihilation of the caste system in India?

OR

- B Discuss the significance of the title *Joothan* and how it symbolizes systemic humiliation and social exclusion?

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FACULTY OF SCIENCE
M.Sc. (ENGG. PHYSICS & INSTR) IV SEM (CBCS) EXAMINATIONS, JULY 2025
FEEDBACK AND PROCESS CONTROL SYSTEMS
PAPER – IV (A)

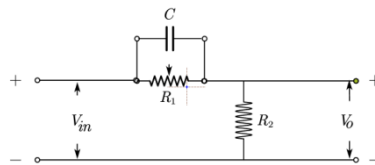
Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Distinguish between open loop and closed loop systems.
- b Write a note on Effect of measurement lag.
- c Find the transfer function of the network.



- d Explain Nyquist's stability. What is its significance?

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss about the transient response of proportional control of a two capacity process.

OR

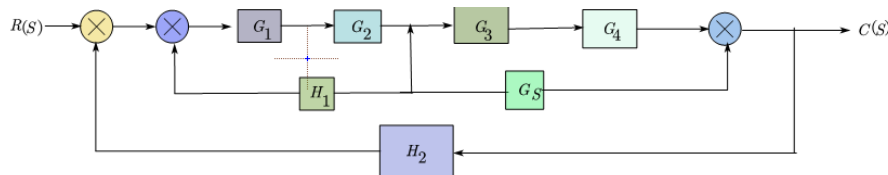
- B Explain the transient response of proportional integral control of single and two capacity process control system.

- 3 A Describe in detail about the frequency response of proportional integral and derivative controllers.

OR

- B Discuss the changes in set point and changes in load. Explain the use of closed loop response to predict transient response.

- 4 A Reduce the block diagram and obtain the frequency transfer function of $\frac{C(s)}{R(s)}$.



OR

- B Explain in detail about the Loop and Nodal analysis of active networks.

- 5 A Define polar and Bode plots? Also Explain the procedure to construct a polar and the bode plots.

OR

- B What is signal reconstruction? Discuss in detail about the spectrum analysis of sampling process.

★★★★★

509/JULY25/IV-D(A)

FACULTY OF SCIENCE
M.Sc. (PHYSICS) IV SEMESTER (CBCS) EXAMINATIONS JULY 2025
MATERIALS AND CHARACTERISATION TECHNIQUES
(SOLID STATE PHYSICS SPECIAL)
PAPER – IV (A)

Time: 3 Hours]

[Max. Marks: 80

SECTION – A ($4 \times 5 = 20$ Marks)

1. Answer ALL the following

- a. Explain about Hysteresis loop.
- b. Differentiate the thermoplastic and thermosetting polymers
- c. What is composite material and what is the reinforcement in a composite?
- d. Briefly discuss the TGA.

SECTION – B ($4 \times 15 = 60$ Marks)

Answer ALL Questions

2. a) Discuss the structural classifications of ferroelectric materials.

(OR)

- b) Explain the concept of ferroelectric domain pairs and switching-phenomenon

3. a) What is polymer crystallinity? Describe the stress-strain behavior of the polymers in detail with a neat sketch.

(OR)

- b) Explain the structure of the glass. Discuss the method of synthesis of glass in detail

4. a) Describe the classification of composites in detail with examples.

(OR)

- b) Explain the following in detail

- | | |
|--------------------------------|-------------------------------|
| i) Polymer-Matrix Composites | ii) Metal-Matrix Composites |
| iii) Ceramic-Matrix Composites | iv) Carbon-Corban composites. |

5. a) Discuss in detail about the construction and working of SEM.

(OR)

- b) Discuss in detail about Differential Scanning Calorimetry.

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509/JULY25/IV-D(B)

FACULTY OF SCIENCE
M. Sc (PHYSICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
DIGITAL SYSTEM DESIGN USING VHDL
(ELECTRONICS SPECIAL)
PAPER – IV(B)

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 Answer ALL the questions

- a Write a short note on Case statements.
- b Briefly explain Multiple drivers.
- c What is Operator Over loading? Explain.
- d Write a short note on writing a Test Bench.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Explain in detail about Identifiers, Data Objects and Data Types.

OR

B Explain the following with suitable examples:

- i) Wait statements ii) if statements iii) loop statements

3 A Explain in detail about Component Declaration and Component Instantiation with examples.

OR

B Discuss in detail about Configuration Specification, Default rules and Conversion functions.

4 A Explain about Order of Analysis, Implicit Visibility and Explicit Visibility.

OR

B Describe about Entity statements, Aliases and Qualified expressions.

5 A Explain in detail about Dumping results in to a text file and Reading Vectors from a text file.

OR

B Discuss in detail about Modeling MooreFSM and Modeling a Measely FSM.

★★★★★

FACULTY OF SCIENCE
M.Sc. (PHYSICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
OPTICAL, SATELLITE AND MOBILE COMMUNICATIONS
(ELCTRONICS SPECIAL)
PAPER – IV (C)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 Answer ALL the questions

- a Explain how optical fibers will help in communication.
- b What are Angle of Inclination and period of satellite?
- c Give few applications of GPS system.
- d Differentiate between satellite communication and mobile communication.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A** Explain scalar wave equation and the modes of a fiber. Also discuss modal analysis for a step index fiber.

OR

- B** Discuss single mode fibers and multimode fibers with its optimum profile. Also explain first order and second generation optical fiber communication systems

- 3 A** Discuss in detail about Satellite Repeaters and Satellite Transponders.

OR

- B** Explain in detail about Telemetry, Command and Control Sub-systems of satellite.

- 4 A** Discuss in detail about Transmitter and Receiver subsystem of Satellite with neat schematic diagram

OR

- B** Describe about communication, Surveillance and Navigational satellites.

- 5 A** Explain the different aspects involved in the planning of a cellular system design, and elements of cellular system design.

OR

- B** Discuss the Frequency reuse, Co-Channel interference reduction factor and hand off mechanism of a mobile,

★★★★★

FACULTY OF SCIENCE
M. Sc. (CHEMISTRY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SUPRAMOLECULAR CHEMISTRY, BIO-PHYSICAL METHODS & MIXED LIGAND COMPLEXES
(INORGANIC CHEMISTRY SPECIAL)
PAPER – IV

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1. Answer ALL questions

- a) Write a note on
 - i. Complexation selectivity
 - ii. Preorganization.
- b) Discuss in detail about the factors affecting the T_m and metal DNA interactions.
- c) Discuss the characteristic property of fluorescence emission with suitable examples.
- d) Discuss in detail the Hydrogen bonding interactions and electrostatic interactions in mixed ligand complexes.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL the questions

2. a) Explain the following with suitable examples
 - i. Macrocycles with secondary binding sites.
 - ii. Clefts
 - b) Write a note on Co-complexation with suitable examples
- (OR)**
- c) Describe the ditopic receptors, second sphere co-ordination and conformational coupling with suitable examples.
 - d) Discuss the Hole-size concept of Supramolecular chemistry.
-
3. a) Write in detail the double helix, anti and syn conformations of nucleotides.
 - b) Give an account on B-A and B-Z transitional forms of DNA.
- (OR)**
- c) Mention the secondary and tertiary structure of DNA and write in detail about the three kinds of RNA and write their structures.
 - d) What are the potential binding sites and explain the influence of metal ion on the stability of nucleic acids.
-
4. a) Discuss about the Michaels-Menten equation and explain its treatment to study the state kinetic analysis.
 - b) Write in detail about the types of enzyme inhibition.
- (OR)**
- c) Discuss the application of fluorescence quenching in DNA binding sites.
 - d) Explain the significance of K_m , K_{cat} , K_{cat}/K_m and the effect of pH, temperature substrate concentration on enzyme kinetics.
-
5. a) Determine the methods for Quantitative comparison of binary and ternary complexes in terms of $\Delta \log K$ and $\log X$.
 - b) Explain the merits and demerits of the above methods and explain their theoretical origin.
- (OR)**
- c) Write a brief note on the applications of mixed ligand complexes in chemical analysis and environmental fields.
 - d) Discuss the factors responsible for the stabilization of mixed ligand complexes.

503/JULY25/IV-D (D)(N)(O)

FACULTY OF SCIENCE
M. Sc. (CHEMISTRY) IV SEMESTER (CBCS - NEW & OLD) EXAMINATIONS, JULY 2025
CATALYSIS
(PHYSICAL CHEMISTRY SPECIAL)
PAPER – IV

Time: 3 Hrs]

[Max Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1. Answer ALL questions.

- Describe the mechanism of hydrogenation using Wilkinson's catalyst.
- What are the factors influencing catalytic activity in supported metal catalysts?
- Explain the difference between homogeneous and heterogeneous catalysis with examples.
- Write a note on enzyme catalysis and its specificity.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

2. (A) Define turnover number and turnover frequency. Explain their significance in catalysis.

OR

(B) What is the role of co-catalysts in homogeneous catalysis? Explain with suitable examples.

3. (A) Discuss adsorption isotherms and their role in heterogeneous catalysis.

OR

(B) What is the Langmuir-Hinshelwood mechanism? Explain with a suitable example.

4. (A) Describe the characterization of catalysts using XRD and BET surface area analysis.

OR

(B) Explain acidity measurement using (i) NH_3 -TPD and (ii) Pyridine-FTIR techniques.

5. (A) What are phase-transfer catalysts (PTC)? Explain their mechanism and industrial significance.

OR

(B) Write a note on solid acid catalysts and their applications in green chemistry.

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503/JULY25/IV-D(E)(N)(O)

FACULTY OF SCIENCE
M. Sc. (CHEMISTRY) IVSEM (CBCS – NEW & OLD) EXAMINATIONS, JULY 2025
ADVANCED NATURAL PRODUCTS
(ORGANIC CHEMISTRY SPECIAL)
PAPER – IV

Time: 3 Hours]

[Max Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1. Answer ALL questions.

- Write the biosynthesis of tyrosine.
- Write a note on the stereochemistry of morphine.
- Explain the ^{13}C NMR spectrum of quinoline.
- Write the synthesis of Biotin

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

2. (a) Explain the chemical degradation methods for the identification of the position of the label in a labelled compound.
(b) Write the biosynthesis of β -amyrin.

OR

- Write the methods for the determination of the biosynthesis mechanism.
- Write the differences between biosynthesis and laboratory synthesis.

3. (a) Write a note on the structure determination of morphine.
(b) Write a note on the structure determination of abietic acid.

OR

- Discuss the stereochemistry of reserpine and abietic acid.
- Write a note on the structure determination of atropine.

4. (a) Explain the INEPT spectra of Menthol.
(b) Explain the NOESY of Buxaquamarine.

OR

- Explain the structure determination of flavone using various spectral methods.
- Explain the HETEROCOSY of Strictanol.

5. (a) Explain Nicolaou's synthesis of Taxol.
(b) Write the synthesis of L-hexoses using the Sharpless method.

OR

- Write the Takasago's synthesis of Menthol.
- Write Corey's synthesis of prostaglandin E₂ and F₂ α .

★★★★★

FACULTY OF SCIENCE
M. Sc. (BOTANY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
BIOFERTILIZERS AND ORGANIC FARMING
PAPER – IV (A)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 Answer ALL the questions

- a VAM Fungi.
- b Azospirillum.
- c Free living nitrogen biofertilizers.
- d Bio control agent.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Write on nitrogen fixers and outline the modes of nitrogen fixation.

OR

B Describe organic farming, organic manure and compost in detail.

3 A Explain the method of isolation and mass cultivation of *Rhizobium*.

OR

B Describe the various PGR formulations and applications studied by you.

4 A Discuss the role of BGA in reclamation of saline and alkaline soils.

OR

B Write about the different methods of cultivation of blue green algae.

5 A Write about the advantages and disadvantages of bioinoculants over chemical fertilizers.

OR

B Explain the different types of Mycorrhizae studied by you.

★★★★★

504/JULY25/IV-D(A)

FACULTY OF SCIENCE
M. Sc. (COMPUTER SCIENCE) IV SEMESTER (CBCS) EXAMINATIONS JULY 2025
MOBILE COMPUTING
PAPER - IV

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write a short note on MAC.
- b Write a short note on GSM.
- c Write a short note on mobile IP.
- d Define WAP.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Discuss in detail about Signal Propagation and Multiplexing.

OR

B Compare and Contrast FDMA and TDMA.

3 A Distinguish between Infrared Vs Radio Transmission.

OR

B Discuss in detail about HPERLAN and Bluetooth.

4 A Explain in detail about Dynamic Host Configuration Protocol.

OR

B Discuss in detail about classical TCP improvements.

5 A Discuss in detail about World Wide Web.

OR

B Write a detailed note on File Systems.

★★★★★

518/JULY25/IV-D

FACULTY OF SCIENCE
M. Sc. (MICROBIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
APPLIED MICROBIOLOGY
PAPER - IV

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a ED pathway
- b Protease
- c Phytiatry science
- d Biosensors

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Explain the detail account on TCA cycle and its integration.

OR

B Give a detail account on exploitation of metabolic pathways in fermentation technology.

3 A Write a detailed account on production of microbial bacteriocins.

OR

B Describe the rapid detection techniques for pathogenic microorganisms.

4 A Explain the plant diseases caused by fungi and bacteria.

OR

B Give a detail account on biological and chemical methods for pest management.

5 A Explain the concept of micro and nanofluidics.

OR

B Describe the drug and gene delivery systems.

★★★★★

FACULTY OF SCIENCE
M. Sc. (ZOOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ENTOMOLOGY
PAPER -IV

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

- 1 **Answer ALL the questions**
- a Internal anatomy of insects
 - b Types of tracheal system
 - c Diseases of mulberry silkworm
 - d Social organisation of termites.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Write the modifications of head structures and cephalic appendages.

OR

- B Write the insects historical background and classification up to families.

- 3 A Describe the alimentary canal and its associated glands of insect.

OR

- B Give an account on haemolymph composition, types and its functions.

- 4 A Explain the life history of honeybee and methods of bee keeping.

OR

- B Write the history, arthropod classes and their role in forensic entomology

- 5 A What is metamorphosis? Add a note on types of metamorphosis with suitable examples.

OR

- B Describe the structure of sound organs and mechanism of sound production.

★★★★★

FACULTY OF SCIENCE
M. Sc. (STATISTICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ADVANCED OPERATIONS RESEARCH
PAPER –IV (B)

Time:3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 Answer ALL the questions

- a Explain the Generalised Lagrange multiplier technique?
- b Explain General goal programming model?
- c State the different decision-making environments?
- d State the assumption in inventory models for perishable goods?

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A** Derive Kuhn – Tucker conditions for a non-linear programming problem with one inequality constraint in 'n' variables?

OR

- B** Write Beals algorithm to find the optimal solution to a quadratic programming problem?

- 3 A** State the characteristics of Dynamic programming technique? Also discuss its merits and demerits?

OR

- B** Explain how can you obtain the solution to the linear goal programming problem?

- 4 A** Explain different criterion to solve a decision problem under risk?

OR

- B** Write an algorithm to solve linear Fractional Programming Problem?

- 5 A** Explain replacement policy: i) When the equipment suddenly fails and ii) Group replacement.

OR

- B** Explain in detail about perishable inventory models without shortage?

★★★★★

FACULTY OF SCIENCE
M. Sc. (MATHEMATICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
CALCULUS OF VARIATIONS
PAPER – IV (A)

Time:3 Hrs]

[Max. Marks:80

SECTION - A (4 X 5 =20 Marks)1 **Answer ALL the questions.**

- a Write about the problem of geodesics.
- b Find extremal of $v[y(x)] = \int_0^1 (y^2 + x^2 y') dx$; $y(0) = 0, y(1) = a$.
- c Find extremal of the functional $v[y(x)] = \int_0^1 (1 + y''^2) dx$; $y(0) = 0, y'(0) = 1, y(1) = 1, y'(1) = 1$.
- d State Hamilton's Principle.

SECTION - B (4 X 15 = 60 Marks)**Answer ALL the questions.**

- 2 A Derive a necessary condition for Euler's equation.

OR

- B Find the curve passing through the points
- (x_1, y_1)
- and
- (x_2, y_2)
- which when rotated about the x-axis gives a minimum surface area.

- 3 A Find the curve connecting given points A and B which traversed by a particle sliding from A to B in the shortest time (friction and resistance of the medium are ignored).

OR

- B
- (i). Find the extremals of the functional $v[y(x)] = \int_{x_0}^{x_1} \frac{\sqrt{1+y'^2}}{y} dx$.
 - (ii). Test for extremals of the functional $v[y(x)] = \int (y^2 + 2xyy') dx$; $y(x_0) = y_0, y(x_1) = y_1$.

- 4 A Find the differential equations of the lines of propagation of light in an optically nonhomogeneous medium in which the speed of light is
- $v(x, y, z)$
- .

OR

- B
- Show that the functional $\int_0^{\frac{\pi}{2}} \left\{ 2xy + \left(\frac{dx}{dt} \right)^2 + \left(\frac{dy}{dt} \right)^2 \right\} dt$; such that $x(0) = 0, x\left(\frac{\pi}{2}\right) = -1,$
 $y(0) = 0, y\left(\frac{\pi}{2}\right) = 1$ is stationary for $x = -\sin t, y = \sin t$.

- 5 A Derive the equation of vibrations of a rectilinear bar. Direct the axis of abscissas along the axis of the bar in the equilibrium position, A deviation from the equilibrium position
- $u(x, t)$
- will be a function of x and of the time t, the kinetic energy of a bar of length l is
- $T = \frac{1}{2} \int_0^l \rho u_t'^2 dx$
- .

OR

- B Draw a second spring and mass hanging from the first. If the masses are
- m_1, m_2
- and the spring constants are
- c_1, c_2
- , the energy is

$$H = K + P = \frac{1}{2m_1} p_1^2 + \frac{1}{2m_2} p_2^2 + \frac{1}{2} c_1 u_1^2 + \frac{1}{2} c_2 (u_2 - u_1)^2.$$

Then find the four Hamilton's equations $\frac{dH}{dp_i} = \frac{du_i}{dt}, \frac{dH}{du_i} = -\frac{dp_i}{dt}$ and the matrix equation $Mu'' + Ku = 0$.

★★★★★

FACULTY OF ARTS
M.A (Urdu) IV Semester Examination (CBCS)

Elective Paper - IV (A) چوتھا پرچہ اختیاری

(Khawateen Ka Adab) خواتین کا ادب

[Time : 3 Hours]

Answer ALL the questions

Max Marks : 80

Section - A

- نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے پانچ نشانات ہیں۔ ہر سوال کا جواب پندرہ سطروں میں تحریر کیا جائے۔ (4 x 5 = 20)
1. تعلیم نسواں کے سلسلے میں مولوی محبت حسین کی کوششوں کا ذکر کیجیے۔
 2. صغرا ہمایوں مرزا کی فکشن نگاری پر مختصر نوٹ لکھیے۔
 3. پرایا گھر کے مرکزی خیال کی وضاحت کیجیے۔
 4. رشید جہاں کے بارے میں اپنی معلومات قلم بند کیجیے۔

Section - B

- نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے پندرہ نشانات مختص ہیں۔ ہر سوال کا جواب چار صفحات سے زیادہ نہ ہو۔ (4 x 15 = 60)
5. (A) منو کے فلسفے کے حوالے سے قدیم ہندوستان میں خواتین کی سماجی حیثیت پر روشنی ڈالیے۔
(B) ہندوستان میں اصلاح نسواں کی ابتدائی کوششوں کا ذکر کیجیے۔
 6. (A) آزادی سے قبل اردو فکشن کے فروغ میں خاتون ناول نگاروں کی خدمات کا جائزہ لیجیے۔
(B) امتیاز اور چندا کی شاعری کا تنقیدی جائزہ لیجیے۔
 7. (A) خاتون فکشن نگاروں میں عصمت چغتائی کے مقام کا تعین کیجیے۔
(B) ”اگلے جنم موہے بٹیا نہ کچھ“ کے پلاٹ پر روشنی ڈالیے۔
 8. (A) مغرب کی انسانی تحریکوں پر جامع نوٹ تحریر کیجیے۔
(B) خواتین کی شاعری میں احتجاجی رویوں پر اظہار خیال کیجیے۔

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015/JULY25/IV-D(A)

FACULTY OF ARTS
M.A (TELUGU) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025

ప్రాంతీయ సాహిత్య అధ్యయనం తెలంగాణ తెలుగు సాహిత్యం

పేపర్ - IV (A)

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (4 X 5 = 20 మార్కులు)

1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి

- ఎ తెలంగాణ గ్రంథాలయాలు
- బి గోసబుద్ధారెడ్డి
- సి కొమర్రాజు వెంకట లక్ష్మణరావు
- డి సాహు

సెక్షన్ - బి (4 X 15 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

2 ఎ తెలంగాణలోని సాహితీ సంస్థలను పరిచయం చేయండి.

లేదా

బి తెలంగాణలో జాతీయోద్యమం, ఆంధ్రోద్యమాలు కొనసాగినన రీతిని విశ్లేషించండి

3 ఎ బమ్మెర పోతన భక్తిఉద్యమానికి చేసిన దోహదం చర్చించండి

లేదా

బి తెలంగాణ ప్రాచీన కవులు పంపకవి, శేషప్పకవిని పరిచయం చేయండి

4 ఎ తెలంగాణలో ఆధునిక కవులు ఒద్దిరాజు సోదరుల సాహిత్యాన్ని విశ్లేషించండి

లేదా

బి కాళోజీ , సినారె ల కవితా రచనా రీతులను పరిచయం చేయండి

5 ఎ తెలంగాణలో మాండలికాల కొరకు తెలుగు అకాడమీ చేసిన పనులను సమీక్షించండి

లేదా

బి తెలంగాణ పోరాట నాటకాలను పరిచయం చేయండి

★★★★★

015/JULY25/IV-D(B)

FACULTY OF ARTS
M.A (TELUGU) IV SEMESTER (CBCS-NEW) EXAMINATIONS, JULY 2025

తెలుగులో పరిశోధన

పేపర్ - IV (B)

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (4 X 5 = 20 మార్కులు)

1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి

- ఎ పరిశోధన నిర్వచనాలు లక్ష్యాలు
- బి పరిశోధనాంశ నిర్ణయం మార్గాలు
- సి సంగనభట్ల నరసయ్య
- డి ఆంధ్ర విశ్వవిద్యాలయం పరిశోధన

సెక్షన్ - బి (4 X 15 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

2 ఎ పరిశోధన లక్షణాలు లక్ష్యాలను వ్రాయండి.

లేదా

బి పరిశోధన గ్రంథ ప్రణాళిక రచనా పద్ధతిని వివరించండి

3 ఎ పరిశోధన గ్రంథ స్వరూపాన్ని తెల్పి ఉల్లేఖాల ప్రాధాన్యాన్ని వివరించండి

బి పరిశోధన లో సిద్ధాంత గ్రంథ రచనా శైలిని వివరించండి

4 ఎ శాసన పరిశోధకుడిగా బియన్ శాస్త్రి ప్రత్యేకతను వివరించండి

లేదా

బి తాళపత్ర పరిశోధనలో కపిలవాయి లింగమూర్తి, రంగాచార్యలమార్గాన్ని పరిచయం చేయండి

5 ఎ ఉస్మానియా విశ్వవిద్యాలయంలో జరిగిన తెలుగు పరిశోధనను సమీక్షించండి

లేదా

బి కాకతీయ విశ్వవిద్యాలయం తెలుగు పరిశోధనలను పరిచయం చేయండి

★★★★★

FACULTY OF ARTS
M.A. (ENGLISH) IV SEMESTER (CBCS-NEW) EXAMINATIONS JULY 2025
AMERICAN LITERATURE
PAPER- IV (A)

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION-A (4 X 5 = 20 Marks)

1 Answer ALL the following questions

- A Write a short note on American Dream?
- B What is the central idea of the poem *The Road Not Taken*?
- C What is the significance of the scaffold scenes in the novel?
- D What does the symbol of seeds represent in *Death of a Salesman*?

SECTION – B (4 X 15 = 60 Marks)

Answer ALL the following questions

- 2 A Examine the influence of Puritanism on American literature?

OR

- B How does Transcendental movement respond to the social and religious ambience of 19th-century America? Explain.

- 3 A Explore the conflict between individual choice and fate in Frost's *The Road Not Taken* and *Stopping by Woods on a Snowy Evening*?

OR

- B Discuss Stevens' portrayal of death and the human response to mortality in the poems prescribed for your study?

- 4 A Write an essay on the theme of sin and redemption in *The Scarlet Letter*?

OR

- B How does Morrison portray the complexities and sacrifices of being a mother under slavery in *Beloved*? Discuss.

- 5 A Write an essay on the *theme of illusion versus reality in Death of a Salesman*?

OR

- B Discuss the use of symbolism in Tennessee Williams *The Glass Menagerie*?

★★★★★

FACULTY OF ARTS
M.A. (ENGLISH) IV SEMESTER (CBCS-NEW) EXAMINATIONS JULY 2025
AUTO BIOGRAPHY IN INDIA
PAPER- IV (B)

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION-A (4 X 5 = 20 Marks)

1 Answer ALL the following questions

- A What role did reading play in Gandhi's moral and spiritual development in *My Experiments with Truth*?
- B
- C What kind of discrimination did Revathi face in society?
- D How does *Wings of Fire* portray Kalam's spiritual beliefs?

SECTION – B (4 X 15 = 60 Marks)

Answer ALL the following questions

- 2 A Gandhi's autobiography is not just a personal narrative but also a spiritual and philosophical document? Discuss.

OR

- B Bhagat Singh argues that belief in God is not necessary for moral behaviour in *Why I Am an Atheist*? Explain.

- 3 A Write an essay on the portrayal of Indian nationalism in *The Autobiography of an Unknown Indian*?

OR

- B How Kamala Das uses personal experiences to break the silence around women's emotional and physical needs in *My Story*? Discuss.

- 4 A Examine how Rassundari Devi 's *Amar Jiban* reflects the condition of women in 19th-century Bengal?

OR

- B Discuss how Revathi uses her life story to challenge mainstream narratives about gender and sexuality in *A Truth About Me : A Hijra Life Story*?

- 5 A Examine how *Wings of Fire* presents the theme of perseverance in the face of adversity?

OR

- B Discuss how *My Father Baliah* portrays the impact of caste discrimination on Dalits?

★★★★★

009/JULY25/IV-D(B)(O)

FACULTY OF ARTS
M.A. (ENGLISH) IV SEM (CBCS-OLD) EXAMINATIONS, JULY 2025
FOURTH WORLD LITERATURE
PAPER IV (B)

Time:3 Hrs]

[Max. Marks:80

SECTION - A (4 X 5 = 20 Marks)

1 Answer ALL the following questions

- A Write a short note on the character Kathamuthu in *The Grip of Change*?
- B What role does Mexican's play in *Ceremony*?
- C What is the main conflict in *Green Grass, Running Water*?
- D What is the central idea of *Benang*?

SECTION – B (4 X 15 = 60 Marks)

Answer ALL the following questions

- 2 A *Upara* portrays the life struggles and humiliation of a kaikadi community? Explain.

OR

- B Write an essay on the theme of patriarchy in Sivakami's *The Grip of Change*?

- 3 A Discuss the theme of identity conflict in Scott Momaday's *House Made of Dawn*?

OR

- B *Ceremony* interweaves the individual story of Tayo and the collective story of his people? Discuss.

- 4 A Comment on the narrative structure of *Campbell's Half Breed*?

OR

- B Write an essay on the main theme of *Green Grass, Running Water*?

- 5 A Bring out the thematic concerns of Oodgeroo Noonuccal's poems prescribed for your study?

OR

- B Discuss Kim Scott's *Benang* in the light of Post colonialism?

★★★★★

317/JULY25/IV-D(A)

FACULTY OF ARTS AND SOCIAL SCIENCES
M. A (SOCIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SCIENCE, TECHNOLOGY AND SOCIETY
PAPER – IV (A)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL the questions**
- Focus of Sociology of Science
 - Karl Marx on Science
 - Notion of Nanoscience
 - Facets of Network Societies

SECTION – B (4 × 15 = 60 Marks)

Answer ALL questions

- 2 A Present social consequences of technology with suitable examples.

OR

- B Analyse social context and the dynamics of technological change.

- 3 A Sketch scientific community and growth of scientific knowledge with apt illustrations.

OR

- B Give an extensive description of various methods used in science.

- 4 A Compare and contrast Kuhn's paradigm shift and Post-Kuhnian sociology of science.

OR

- B Write a comprehensive note on Ben David's institutional perspective.

- 5 A Examine the role of Information Communication and Technology (ICT) in development.

OR

- B Delineate features of online communities and social interactions within them.

★★★★★

317/JULY25/IV-D(B)

FACULTY OF ARTS AND SOCIAL SCIENCES
M.A (SOCIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SOCIAL MOVEMENTS IN INDIA
PAPER –IV(B)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL the questions**
- a Types of Social Movements
 - b Brahma Samaj
 - c New Farmers movements
 - d Chipko Movement

SECTION - B (4 X 15 = 60 Marks)
Answer ALL questions

- 2 A Define Reform Movement and give description of any two movements in India.

OR

- B Discuss the significance of women's movements in India and their impact on society.

- 3 A What is Prarthana Samaj and give details of issues addressed by Prarthana Samaj.

OR

- B Write an essay on Widow Remarriage movement and the Act in India .

- 4 A Describe the Bharatiya Kissan Sammelan main objectives .

OR

- B What is revolutionary movement ? Discuss any one movement in India?

- 5 A Elaborate the main issues that led to the Jharkand movement.

OR

- B Describe any two regional movements in India with a critical analysis.

★★★★★

317/JULY25/IV-D(C)

FACULTY OF SOCIAL SCIENCES
M.A. (SOCIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
POLITICAL SOCIOLOGY
PAPER – IV (C)

Time: 3 Hours]

[Max. Marks: 80

SECTION – A (5 x 4 = 20 Marks)

1. Answer ALL Questions

- A. Nature of Political Sociology
- B. Political System
- C. Elites and Masses
- D. Decentralization of power

SECTION – B (4 X 15 = 60 Marks)

Answer ALL Questions

2. a) What is Political Sociology ? Explain its meaning and Nature in detail.

OR

- b) Explain different approaches to study politics.

3. a) Describe concepts of power and authority and examine how do they operate in politics .

OR

- b) Define Caste and discuss its impact in voting behavior in India .

4. a) Examine the impact of class, and region on election outcomes in India .

OR

- b) Discuss about the Capitalism and Socialism their significance in India.

5. a) Critically evaluate the role of Panchayat Raj system in Indian democracy .

OR

- b) Describe the various forms of local power structures and their importance in political sociology.

★★★★★

310/JULY25/IV-D(A)(N)

**FACULTY OF SOCIAL SCIENCES
M.S.W IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
RURAL AND TRIBAL COMMUNITY DEVELOPMENT –II
PAPER – IV (A)**

Time: 3 Hours]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1. Answer ALL of the following questions

- a) Functions of SHG
- b) Concept of Watershed
- c) Functions of VSS
- d) Importance of NRM

SECTION – B (4 X 15 = 60 Marks)

Answer ALL of the following questions

2. (a) Briefly explain the history of the SHG movement and discuss the present issues faced by the SHG with suitable examples.

OR

- (b) Discuss the functions, composition and explain the objectives of Micro finance in India with suitable examples.

3. (a) Discuss the important role and the criterion for selecting watershed habitations.

OR

- (b) Illustration of the watershed management system in Telangana and discuss the significance of community-based monitoring in watershed management.

4. (a) Discuss how it helps the empowerment of women through microfinance in the present scenario.

OR

- (b) Explain India's reservation systems and state legislation's role in the empowerment of vulnerability section.

5. (a) Elucidate constitutional provisions for tribal community development and its importance in five-year plans.

OR

- (b) Discuss the constitutional provisions for a weaker section and explain the role of the professional social worker in weaker section development.

★★★★★

FACULTY OF SOCIAL SCIENCES
M.S.W IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
MEDICAL SOCIAL WORK & COMMUNITY HEALTH-II

Time: 3 Hours]

[Max. Marks: 80

SECTION –A (4 X 5 = 20 Marks)

1. Answer ALL of the following questions

- a) WHO
- b) Health Research
- c) Risk Assessment
- d) Community-based rehabilitation

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

2. (a) Why Social Work intervention in Health Care Management is needed – comment in detail on the present context of the Indian situation.

OR

- (b) Give a detailed account of the Historical Development and its practices of social work in primary health care settings.

3. (a) Explain the role of lifestyle diseases in health care and their consequences.

OR

- (b) How does the malnourishment affect the growth of a child? Elaborate with some suitable illustrations.

4. (a) Define the outbreak of epidemics, mention some of the significant outbreaks of epidemics in the Indian context also highlight measures to be taken for prevention.

OR

- (b) Write an essay on Vitamin Deficiency diseases and their impact on health.

5. (a) Explain the role of professional social workers in the process of community sensitization programs on various health issues.

OR

- (b) Explain the role of professional social workers during disaster disease management and its intervention.

★★★★★

313/JULY25/IV-D(A)

FACULTY OF ARTS AND SOCIAL SCIENCES
M.A. (ECONOMICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
LABOUR ECONOMICS
PAPER – IV (A)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Division of labour
- b Informal employment
- c Minimum wage rate
- d Collective bargaining

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A What are the characteristics and benefits of segmentation of labour markets?-Explain

OR

B Discuss the various benefits provided to the labour in organized sector.

3 A Explain the features of casualization of labour in India.

OR

B How globalization to improve the labour force opportunities in developing countries?-Examine

4 A Explain the role of Sharing of gains to increasing in labour productivity.

OR

B Explain the causes for gender wage differentials in India and its impact on production.

5 A Discuss the Growth and structure of labour unions and its merits and demerits.

OR

B Analyze the various Problems faced by child and female labour and explain measures to reduce it.

★★★★★

313/JULY25/IV-D(B)

FACULTY OF ARTS AND SOCIAL SCIENCES
M.A. (ECONOMICS) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ECONOMICS OF INSURANCE
PAPER – IV (B)

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a What is the accumulation planning?
- b Write a short note on retirement planning.
- c What do you mean by capital market?
- d What is insurance and its types?

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A What are the key factors for successful life cycle planning?-Explain

OR

B Discuss the difference between tax advantaged and non tax advantaged investments.

3 A Explain the Retirement planning strategies.

OR

B Examine the types, features and benefits of pension plans in India.

4 A Explain the Role of risk-management and insurance in economics development.

OR

B Analyze the role of Insurance institutions in Indian capital market.

5 A Discuss the role of IRDA in Indian insurance sector

OR

B What is the organizational set up of an insurance company? - Analyze

★★★★★

FACULTY OF COMMERCE
M.COM. (GEN & FA) IV SEM (CBCS-NEW & OLD) EXAMINATIONS, JULY2025
STRATEGIC FINANCIAL MANAGEMENT
PAPER – IV

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer ALL the questions

- a. What do mean by corporate strategy for growth?
- b. What is levered and unlevered beta?
- c. Describe Dilution and Accretion of Earnings
- d. What is value based management?
- e. What is Buy Back of Shares?

SECTION - B(5 X 12 = 60 Marks)

Answer ALL the questions

- 2 A What do you mean by strategic financial management? Discuss the objectives and importance of strategic financial management.

OR

- B What do you mean by Venture Capital? Describe the importance of Venture Capital

- 3 A What do you understand by debt and debt securitization? Describe the process of Debt Securitization.

OR

- B ABC Company has currently and ordinary share capital of Rs. 25,00,000 lakhs, consisting of 25,000 shares of 100 each. The management is planning to raise another Rs. 20,00,000 lakhs to finance a major programme for expansion through one of four possible financial plans.
- i. Entirely through ordinary shares.
 - ii. Rs.10 lakhs through ordinary shares and Rs.10 lakhs through long term borrowings at 80% interest per annum.
 - iii. Rs. Lakhs through ordinary shares and Rs 15 lakhs through long term borrowing at 9 percent interest per annum.
 - iv. Rs. 10 lakhs through ordinary shares and Rs.10 lakhs through preference shares with 5 percent dividend.

The company's expected earnings before interest and taxes (EBIT) will be Rs. 8 lakhs. Assuming a corporate tax rate is 50%, determine the earnings per share in each alternative and comment which alternative is the best and why?.

- 4 A What do you understand by mergers and acquisitions? Describe the merits and demerits of mergers and acquisitions

OR

- B X Ltd is intending to acquire Y Ltd. By merger and the following information is available in respect of the companies.

	X Ltd.	Y Ltd.
Number of Equity Shares	10,00,000	6,00,000
Earnings after tax Rs.	50,00,000	18,00,000
Market value per share Rs.	42	28

- (i) What is the present EPS of both the companies
- (ii) If the proposed merger takes place, what would be the new earning per share for X Ltd?
- (iii) Assume that the merger takes place exchange of equity shares and the exchange ratio is based on the current market price.

(Contd.....)

- 5 A What is Corporate Valuation? Explain the various Approaches of Corporate Valuation.

OR

- B From the following information of A ltd company balance sheet and income statement:

Particulars	2023 (Million)	2022 (Million)
Depreciation and Amortization	15	10
Current assets	150	100
Fixed assets	250	200
Accounts payable	30	30
Short term debt	40	30
Long term debt	30	20

The company's net income for the year 2023 is Rs. 100 million. Find out the free cash flow to equity of the firm

- 6 A Discuss about the Spin off, Split off and Leveraged Buyout.

OR

- B Define Financial Restructuring. Discuss various approaches for Financial Restructuring.

★★★★★

408/JULY25/IV-D(C)(N)

FACULTY OF COMMERCE
M.Com. (GEN) IV SEM (CBCS-NEW) EXAMINATIONS, JULY 2025
INURANCE FINACE AND ADMINISTRATION
(BANKING & INSURANCE SPECIAL)
PAPER-IV(C)

Time: 3 Hours]

[Max . Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer ALL the questions

- a) What is Morality table?
- b) Premium determination.
- c) Reserves and surplus.
- d) LIC.
- e) Export Credit.

SECTION - B (5 X 12 = 60 Marks)

Answer ALL the questions

- 2. a) What is the procedure to construction of morality tables for annuities?
(OR)
b) What is Law of probability? Explain factors impact on Law of probability.
- 3. a) Explain the Mode of loading for expenses, gross premium and insurance expenses.
(OR)
b) What is Actuarial valuation? Explain elementary study of actuarial valuation.
- 4. a) What are the statutory regulations of reserves in insurance companies?
(OR)
b) What is insurance surplus explain nature and scope of insurance surplus?
- 5. a) Write about present administrative setup of Provident Fund societies.
(OR)
b) Briefly explain the statutory administrative provisions of Insurance companies.
- 6. a) Briefly discuss the legislation of GIC of India Act, 1976.
(OR)
b) What is IRDA? Explain the role of IRDA in India.

★★★★★

FACULTY OF COMMERCE
M.COM (COMP APPLICATIONS) IV SEM (CBCS-NEW & OLD) EXAMINATIONS, JULY 2025
DATA ANALYSIS WITH SPSS
PAPER -IV

Time: 3 Hrs]

[Max. Marks: 60

SECTION - A (5 X 2 = 10 Marks)

1) Answer ALL the following questions

- a) What do you mean by SPSS?
- b) What is Standard Deviation?
- c) What is Hypothesis?
- d) What is Box-plot?
- e) What is multivariate analysis?

SECTION - B (5 X 10 = 50 Marks)

Answer ALL questions

2. a) Explain in detail about data view and variable view in SPSS.

OR

- b) How to creating and editing a data file explain in detail

3. a) What do you mean by constructing variables? Explain the procedure and computing variables.

OR

- b) Explain in detail about descriptive statistics.

4. a) Describe the procedure of testing hypothesis.

OR

- b) Explain the one way analysis of variance test with suitable example

- 5 a) What are non-parametric tests? Explain the procedure of chi-square test in SPSS

OR

- b) Explain the Mann-Whitney U-test with the help of an example.

6. a) What is Factor Analysis? Explain the procedure of opening dialog window and Descriptive Window.

OR

- b) Write about component transformation matrix and rotated component matrix.

★★★★★

411/JULY25/IV-D

FACULTY OF COMMERCE
M.Com. (INSURANCE & BANKING) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
INTERNATIONAL ACCOUNTING
PAPER-IV

Time: 3 Hours]

[Max . Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer ALL the following:

- a) Cross border merger
- b) Translation of balance sheet.
- c) Financial Risk.
- d) Double Taxation.
- e) Global financial statements.

SECTION - B (5 × 12 = 60 Marks)

Answer ALL questions

- 2. a) Define International Accounting. Discuss its scope and relevance in the global economy.
OR
b) Examine the role of financial innovation in the evolution of international accounting
- 3. a) Discuss the different methods and approaches used in foreign currency translation.
OR
b) The following balances are extracted from the books of a foreign branch:
Cash: \$2,000, Accounts Receivable: \$5,000, Inventory: \$10,000, Fixed Assets: \$20,000,
Exchange rates: Historical rate for Fixed Assets = 1 USD = ₹65, Closing rate for other
assets = 1 USD = ₹70. Translate the balance sheet into INR using the appropriate method.
- 4. a) What are business combinations? Discuss the motives behind them.
OR
b) Company A (parent) holds 80% of Company B (subsidiary). Company B has net assets
worth ₹5,00,000. Calculate the consolidated equity and minority interest assuming no
goodwill or adjustments.
- 5. a) What are tax havens? Evaluate their impact on global taxation policies.
OR
b) Discuss the different types of taxes affecting individuals in an international context.
- 6. a) Define international financial statement analysis. Why is it important in today's context?
OR
b) What are the techniques used in financial statement analysis? Explain with examples.

★★★★★

016/JULY25/IV-E

FACULTY OF ARTS
M.A (Urdu) IV Semester Examination (CBCS)

Elective Paper V(B) (Intra Disciplinary)

پانچواں پرچہ اختیاری (B) انٹرا ڈسپلینری
(Urdu Zaban-o-Adab Ki Tadrees) اردو زبان و ادب کی تدریس

[Time : 3 Hours]

Answer ALL the questions

Max Marks : 80

Section - A

- نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے پانچ نشانات ہیں۔ ہر سوال کا جواب پندرہ سطروں میں تحریر کیا جائے۔
- (4 x 5 = 20)
1. اردو زبان کی تدریس کی اہمیت پر روشنی ڈالے۔
 2. داستان کی تدریس کے مسائل بیان کیجیے۔
 3. قصیدے کی تدریس کے مقاصد واضح کیجیے۔
 4. غزل کی تدریس پر مختصر نوٹ لکھیے۔

Section - B

- نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے پندرہ نشانات مختص ہیں۔ ہر سوال کا جواب چار صفحات سے زیادہ نہ ہو۔
- (4 x 15 = 60)
5. (A) اردو ادب کی تدریس کی اہمیت پر روشنی ڈالے۔ یا
 - (B) اردو زبان کی تدریس کے مقاصد کی وضاحت کیجیے۔
 6. (A) ناول کی تدریس کے مسائل پر اظہار خیال کیجیے۔ یا
 - (B) ڈرامے کی تدریس کے طریقہ کار کی وضاحت کیجیے۔
 7. (A) مثنوی کی تدریس کے طریقہ کار کی وضاحت کیجیے۔ یا
 - (B) مرثیے کی تدریس میں کن نکات کی وضاحت ضروری ہے؟ لکھیے۔
 8. (A) غزل کی تدریس کے طریقہ کار کی وضاحت کیجیے۔ یا
 - (B) نظم کی تدریس کے اقدامات سبق پر روشنی ڈالے۔

.....

FACULTY OF ARTS
M.A (TELUGU) IV SEMESTER (CBCS-NEW) EXAMINATIONS, JULY 2025

జానపద విజ్ఞానం - సాహిత్యం

పేపర్ - V (A)

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (4 X 5 = 20 మార్కులు)

1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి

ఎ జానపద విజ్ఞానం పరిచయం

బి చారిత్రకవాదం

సి ఒగ్గుకథ

డి స్త్రీల పౌరాణిక పాటలు ప్రత్యేకత

సెక్షన్ - బి (4 X 15 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

2 ఎ జానపద విజ్ఞానం లోని వివిధ వాదాలను పరిచయం చేయండి

లేదా

బి జానపద విజ్ఞాన సేకరణ పరిరక్షణ పద్ధతిని వివరించండి

3 ఎ జానపద విజ్ఞానం లో పురాగాథా వాద ప్రాధాన్యాన్ని వివరించండి

లేదా

బి జానపద కథా గేయాలను వర్గీకరించి పరిచయం చేయండి

4 ఎ సామెతలోని సాంఘిక విశేషాలను వివరించండి

లేదా

బి జానపద కళాకారులను నలుగురిని పరిచయం చేయండి

5 ఎ ధర్మరాజు కథను సమీక్షించండి

లేదా

బి బతుకమ్మ పాటల ప్రత్యేకతను పరిచయం చేయండి

★★★★★

FACULTY OF ARTS
M.A (TELUGU) IV SEMESTER (CBCS OLD) EXAMINATIONS, JULY 2025

కథానిక సాహిత్య వికాసం

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (5 X 4 = 20 మార్కులు)

- 1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి
- ఎ మినీకథ లక్షణాలు
- బి తొలితరం తెలంగాణ కథలు
- సి తొలితరం రాయలసీమ కథలు
- డి బోయజంగయ్య
- ఇ బియస్. రాములు

సెక్షన్ - బి (5 X 12 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

- 2 ఎ కథానికను నిర్వచించి దాని లక్షణాలను వివరించండి
- లేదా
- బి పెద్దకథ లక్షణాలను వివరించండి
- 3 ఎ తెలంగాణ పోరాట కథలను పరిచయం చేయండి
- లేదా
- బి తెలంగాణ కథా వస్తు వైవిధ్యాన్ని పరిచయం చేయండి
- 4 ఎ రాయలసీమ కథానికల ప్రత్యేకతను వివరించండి
- లేదా
- బి కోస్తాంధ్రలో కథలు వికసించిన రీతిని వివరించండి
- 5 ఎ గొల్లరామప్ప కథావస్తువును విశ్లేషించండి
- లేదా
- బి కాలువ మల్లయ్య కరువు కథ ద్వారా ఇచ్చిన సందేశాన్ని చర్చించండి
- 6 ఎ కథా సాహిత్యవిమర్శలో ముదిగంటిసుజాత రెడ్డి చేసిన కృషిని వివరించండి
- లేదా
- బి కథా సాహిత్యవిమర్శలో రాచపాళెం చంద్రశేఖరరెడ్డి మార్గాన్ని వివరించండి

009/JULY25/IV-E(N)

FACULTY OF ARTS
M.A. (ENGLISH) IV SEM (CBCS-NEW) EXAMINATIONS JULY 2025
COMMUNICATION SKILLS
PAPER- V

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION-A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

What are the key elements of effective verbal communication?

A

What is the role of imagery in teaching poetry?

B

How does creative writing differ from academic writing?

C

Write a short note on minutes of a meeting?

D

Write a short note on Group Discussion?

E

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

2 A Critically analyze the barriers of effective verbal communication?

OR

B Discuss the different types of non-verbal communication with suitable examples?

3 A Discuss the importance of LSRW skills in effective communication and language learning?

OR

B What are the various methods and strategies used to teach vocabulary in the classroom? Explain.

4 A What are the key elements of a well-structured essay? Explain with examples.

OR

5 A Write an essay on the key characteristics of effective technical writing?

OR

B Discuss how communication and leadership contribute to effective teamwork?

6 A Write an essay on the key elements of Presentation skills?

OR

B Discuss the different types of interviews and the skills required to face them confidently?

★★★★★

009/JULY25/IV-E(O)

FACULTY OF ARTS
M.A. (ENGLISH) IV SEM (CBCS-OLD) EXAMINATIONS, JULY 2025
SOUTH ASIAN LITERATURE
PAPER - V

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 Answer ALL the following questions

- A Globalization in South Asia
- B Write a short note on the poem *Nallur*?
- C Sketch the character of Amir in *The Kite Runner*?
- D What is the central idea of Romesh Gunsekera's *A long, slow descent into hell*?

SECTION – B (4 X 15 = 60 Marks)

Answer ALL the following questions

2 A Write an essay on South Asian Diaspora?

OR

B Write in detail on Gender and Ethnicity?

3 A Attempt a critical appreciation of Kaiser Haq's poems prescribed for your study?

OR

B Critically analyse and interpret Kaiser Haq's poem *Poor Man Eating*?

4 A Comment on the narrative technique in Michael Ondaatje *Anil's Ghost*?

OR

B Elaborate on the theme of racism and ethnicity in Khaled Hosseini's *The Kite Runner*?

5 A Write an essay on the main theme of Hanif Kureishi's *Something Given: Reflections on Writing*?

OR

B Write a critical analysis of Manjushree Thapa's *The Difficulty of Being Nepali*?

★★★★★

317/JULY25/IV-E(B)

FACULTY OF SOCIAL SCIENCES
M. A (SOCIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
THEORY AND PRACTICE OF SOCIAL WORK
PAPER – V (B)

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Write Short notes on the following

- a) Social Service
- b) NGOs
- c) Social Development
- d) Tribal Community Development
- e) Social Reconstruction

SECTION – B (5 x 12 = 60 Marks)

Answer ALL questions

- 2 A) Explain the evolution of Social Welfare?

OR

B) Highlight the role of welfare activities in Development and remedial process.

- 3 A) Write an essay on the contribution of voluntary organization in development process.

OR

B) Highlight the role of voluntary organization bringing change in society.

- 4 A) Explain the emergence and development of Social Work as a Profession?

OR

B) Explain the basic principles and values of Social Work.

- 5 A) Discuss the nature and scope of Social Work Research.

OR

B) Discuss the importance of Research in Social Work practice.

- 6 A) Discuss the fields of Social Work practice.

OR

B) Highlight the role of Social workers in Urban development.

★★★★★

FACULTY OF SOCIAL SCIENCES
M. A (SOCIOLOGY) IV SEMESTER (CBCS) EXAMINATIONS, JULY 2025
CRIMINOLOGY
PAPER –V (C)

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (5 x 4 = 20 Marks)

1. Answer ALL of the following

- a) Deviance
- b) What is Perspective?
- c) Political Crimes
- d) DNA
- e) Victimology

SECTION – B (5 x 12 = 60 Marks)

Answer ALL questions

- 2 A) Explain the causes and consequences of Juvenile Delinquency?

OR

- B) Explain the types of Crime in detail?

- 3 A) Does geographical areas contribute to crime? Discuss

OR

- B) Explain the Labeling theory of crime?

- 4 A) Define Cyber Crimes and explain the measures to control it.

OR

- B) Write an essay on crime against Children.

- 5 A) Highlight the role of Forensic Science in detecting crime.

OR

- B) Write an essay on Prison Reforms in India.

- 6 A) Explain the types of punishments?

OR

- B) Highlight the role of Police and Judicial System in maintenance of Law and Order.

★★★★★

FACULTY OF COMMERCE
M.Com. (GENERAL) IV SEMESTER (CBCS OLD) EXAMINATIONS JULY 2025
FINANCIAL SERVICES MANAGEMENT
PAPER - V

Time: 3 Hours]

[Max . Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer all the following:

- a) Traditional vs. modern financial services
- b) Origin and growth of merchant banking
- c) SEBI guidelines on mutual funds
- d) Scope of venture capital financing
- e) Benefits of factoring

SECTION – B (5 × 12 = 60 Marks)

2. a) Define financial services and explain their role and importance in India.

(OR)

- b) Compare and contrast fund-based and fee-based financial services with examples.

3. a) Discuss the origin, growth, and functions of merchant banking in India.

(OR)

- b) What is credit rating? Explain its methodology, benefits, and limitations.

4. a) What are the merits and problems associated with mutual funds?

(OR)

- b) Analyze the problems and prospects of mutual funds in India.

5. a) Discuss the origin and importance of venture capital financing in India.

(OR)

- b) Describe the merits and demerits of lease financing.

6. a) Explain the modus operandi and types of factoring services.

(OR)

- b) Compare factoring and forfeiting. Which is more suitable for export financing and why?

★★★★★

FACULTY OF COMMERCE
M.COM (INSURANCE & BANKING) IV SEM (CBCS OLD) EXAMINATIONS, JULY 2025
MANAGEMENT OF LIFE AND NON-LIFE INSURANCE
PAPER - V

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer the following questions

- a) What are annuities in life insurance?
- b) What is a group gratuity scheme?
- c) What is meant by 'insurable interest' in life insurance?
- d) What is a cover note in insurance?
- e) What is a policy schedule in general insurance?

SECTION - B – (5 X 12 = 60 Marks)

Answer ALL the questions

2. a) How are insurance agents appointed, and what are the key factors considered during their appointment?

OR

- b) What are the different types of life insurance plans? Explain any four popular plans.

3. a) Define group insurance. Explain its nature and distinguish it from individual insurance policies.

OR

- b) Describe the structure and purpose of group superannuation schemes. How do they support post-retirement financial security?

4. a) Explain the principles of utmost good faith and insurable interest in life insurance. Why are they important to take insurance policy?

OR

- b) Discuss the importance of medical examination and age proof in the underwriting process of life insurance.

5. a) Explain the role and significance of the Tariff Advisory Committee (TAC). How does it influence premium rates and standardization in insurance?

OR

- b) Explain the key provisions of the Motor Vehicle Act, 1988 related to insurance. What types of coverage are available under motor vehicle insurance?

6. a) What is the purpose of the policy preamble and schedule in a general insurance policy?

OR

- b) Differentiate between assignment and nomination in general insurance. Also, explain the concepts of loans, surrender, and foreclosure.

★★★★★

410/JULY25/IV-E(O)

**FACULTY OF COMMERCE
M.COM (CA) IV SEMESTER (CBCS OLD) EXAMINATIONS JULY 2025
MANAGEMENT INFORMATION SYSTEM**

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 M)

1) Answer all the following questions

- a) What is Information System?
- b) What do you understand by Executive Support System?
- c) Define information systems planning?
- d) What is Decision Support Systems?
- e) What is Global System Development?

SECTION - B (5 X 12 = 60 M)

Answer ALL questions

2. a) Explain the components of Information Systems.

OR

- b) Explain the importance of information for managerial decision support.

3. a) Explain the Challenges and Benefits of ERP

OR

- b) What is Porter's Competitive Forces Model? How does it work? What does it explain about Competitive advantages?

4. a) Explain the strategies of information systems planning.

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OR

- b) What is a Systems Analysis and Design? Explain the Systems Development Life Cycles.

- 5 a) Describe the components of decision support systems.

OR

- b) Explain in detail about operational Information Systems to Business.

6. a) What do you mean by Information technology architecture? Why it is important?

OR

- b) What is human resource management of IT? Describe the issues in managing data.

★★★★★

009/JULY25/IV-E(N)

FACULTY OF ARTS
M.A. (ENGLISH) IV SEM (CBCS-NEW) EXAMINATIONS JULY 2025
COMMUNICATION SKILLS
PAPER- V

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION-A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A What are the key elements of effective verbal communication?
- B What is the role of imagery in teaching poetry?
- C How does creative writing differ from academic writing?
- D Write a short note on minutes of a meeting?
- E Write a short note on Group Discussion?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

2 A Critically analyze the barriers of effective verbal communication?

OR

B Discuss the different types of non-verbal communication with suitable examples?

3 A Discuss the importance of LSRW skills in effective communication and language learning?

OR

B What are the various methods and strategies used to teach vocabulary in the classroom? Explain.

4 A What are the key elements of a well-structured essay? Explain with examples.

OR

B Write an essay on key elements of paragraph writing? Illustrate with examples

5 A Write an essay on the key characteristics of effective technical writing?

OR

B Discuss how communication and leadership contribute to effective teamwork?

6 A Write an essay on the key elements of Presentation skills?

OR

B Discuss the different types of interviews and the skills required to face them confidently?

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