

INDIRA UNIVERSITY, PUNE

SCHOOL OF PHARMACY- BPHARM

Term End Examination (2025 Pattern) April- May – 2026- Semester – II

Course Name: Biochemistry
Course Code: BP203T

Max. Marks: 75
Time: 3:00 Hrs.

Instructions

- All Questions are Compulsory. Write two sections on separate answersheets.
 - Neat diagram must be drawn wherever necessary.
 - Figures to the right indicate full marks.
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Section: I

Q.1 Solve any FIVE from the following

15 Marks

- Write significance of ATP and cyclic AMP
- Explain oxidation of pyruvate to acetyl CoA.
- Define carbohydrate classify it with suitable example.
- Discuss energetic involved in TCA cycle.
- Define Gluconeogenesis with its significance.
- Define Transamination and Deamination with suitable Examples
- Write a short note on Co-factors.

Q.2 Solve any TWO from the following

20 Marks

- Describe glycogen metabolism in detail, add note on glycogen storage diseases.
- Explain Beta oxidation of odd and even number fatty acid in detail.
- Explain semi conservative model of DNA. Add a note on DNA replication.
- Discuss enzyme classification based on the IUB system and explain the factors affecting enzyme inhibitor.

Section: II

Q.3 Solve any EIGHT from the following

40 Marks

- a. Describe Phenylketonuria and alkaptonuria.
- b. Explain the Inhibitors of ETC
- c. Write a short note on atherosclerosis
- d. Explain in detail conversion of cholesterol into bile acid and steroid hormone.
- e. Describe structure of DNA. Write a note on genetic code.
- f. Discuss synthesis of Dopamine.
- g. Elaborate on disorders in purine metabolism.
- h. Explain metabolic disorders of phenylalanine and tyrosine.
- i. Explain HMP shunts.
- j. Define enzymes and add notes on enzyme inhibitors with examples.
