

Question Paper

Exam Date & Time: 08-Jul-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Instructions: Answer ALL questions.

Medicinal Biochemistry [PBT 1.3T-S3]

Marks: 70

Duration: 180 mins.

Section A

Answer all the questions.

Long Answer Questions (3 x 10 marks = 30 marks)

- 1) Explain the citric acid cycle and discuss its energetics. (10)
- 2) Write the steps involved in the synthesis of urea. Write short notes on the energetics, regulation, and disorders associated with it. (10)
- 3) Discuss the clearance tests used to assess kidney function. (10)

Section B

Answer all the questions.

Short Answer Questions (6 x 5 marks = 30 marks)

- 4) Schematically represent the electron transport chain (ETC) and explain its function. (5)
- 5) What are isoenzymes? Explain their role in the diagnosis of diseases. (5)
- 6) What is ketogenesis? Write the reactions involved in the synthesis of true ketones. (5)
- 7) Explain the principle involved in the estimation of total cholesterol and HDL cholesterol. (5)
- 8) Write a note on base-excision DNA repair. (5)
- 9) Describe the mechanism of transcription in eukaryotes. (5)

Section C

Answer all the questions.

Give Reasons for the Following (5 x 2 marks = 10 marks)

- 10) Lysosome is regarded as the digestive tract of the cell. (2)
- 11) Fisher's template theory fails to explain the effect of allosteric modulators. (2)
- 12) Cause of acute intermittent porphyria and porphyria cutanea tarda. (2)
- 13) Causes of neonatal physiologic jaundice. (2)
- 14) Hemolyzed samples are not suitable for the estimation of sodium and potassium. (2)

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