

Question Paper

Exam Date & Time: 28-Jun-2022 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER BOT / B.Sc. PFT / BPT/ B.Sc. OPTOM. / B.Sc. CVT /B.Sc. RT /B.Sc. MIT /B.Sc. RRT&DT / B.Sc. EMT / B.Sc. AOTT / B.Sc. MLT / B.Sc. NMT / B.Sc. CND DEGREE EXAMINATION - JUNE 2022
SUBJECT: BIC1201 - BIOCHEMISTRY
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Write the reactions of gluconeogenesis from pyruvate mentioning the site and subcellular site. (10)
- 2A) Define micro and macro minerals. Mention the sources and THREE functions each of calcium and phosphorus. (5)
- 2B) Define biologic value of proteins. List the protein sources of high and low biologic values. Define limiting amino acids with suitable examples. (5)
- 3A) Explain the procedure and interpretation of oral glucose tolerance test. Add a note on significance of HbA1c estimation. (5)
- 3B) Explain the structure of starch and glycogen with schematic representation and list the difference between them. (5)
- 3C) Mention the site and subcellular site of lipolysis and describe the reactions. Name the regulatory enzyme. (5)
- 3D) Illustrate the complexes of ETC with their components and order of arrangement and mention the mobile electron carriers. (5)
- 4A) Write ONE reaction in the collagen biosynthesis which requires vitamin C and mention its significance. (2)
- 4B) Name the enzyme defect and tissue affected in Type I and Type V glycogen storage disorders. (2)
- 4C) Mention the TWO physiologically important compounds each derived from glycine and tyrosine. (2)
- 4D) What is the normal level of serum albumin? Name TWO conditions in which it is altered. (2)
- 4E) List TWO differences between DNA & RNA. (2)

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