

Question Paper

Exam Date & Time: 08-Apr-2024 (02:15 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION
FIRST BDS DEGREE EXAMINATION - APRIL 2024
SUBJECT: GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY
(CASUAL BATCH)

Marks: 60

Duration: 165 mins.

SECTION- A GENERAL HUMAN PHYSIOLOGY

Answer ALL questions.

Write brief, clear and legible answers.

Illustrate your answers with diagrams and flow charts wherever appropriate.

- 1A) Mention the respiratory centers in pons and medulla and explain their role in the regulation of Respiration (2+3 = 5)
- 1B) List the phases of deglutition and explain the second phase in detail (1+4 = 5)
- 2A) Describe the stages of erythropoiesis and mention any TWO factors essential for erythropoiesis (3+1= 4)
- 2B) Draw a neat labeled diagram of an ECG from limb lead II. Mention the causes for different waves (2½+1½ = 4)
- 2C) With the help of a flow chart, describe the events of neuromuscular transmission in the skeletal Muscle (4)
- 2D) Draw a neat labeled diagram of lateral spinothalamic pathway. Mention the sensations carried by the same (3+1 = 4)
- 2E) List any FOUR actions of insulin. Explain any ONE of them. (2+2 = 4)

SECTION - B BIOCHEMISTRY

Answer all the questions.

- 3A) Write in detail the reactions involved in gluconeogenesis from pyruvate. (5)
- 3B) Explain the FIVE features of genetic code. (5)
- 4A) Explain non-competitive enzyme inhibition with the help of a graph. Mention ONE example. (3)
- 4B) Define and classify alkalosis. Give TWO causes for each class. (3)
- 4C) Write the sequence of carriers in the electron transport chain and write the basis for their arrangement. (3)
- 4D) List SIX differences between kwashiorkor and marasmus. (3)
- 5A) Name TWO disaccharidases and write their action in the intestine. (2)
- 5B) What is steatorrhea? Mention TWO important causes for this condition. (2)
- 5C) Classify amino acids based on nutritional requirement and give ONE example for each class. (2)
- 5D) Explain the role of vitamin K in blood coagulation. (2)

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