

Question Paper

Exam Date & Time: 01-Aug-2024 (02:15 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST BDS DEGREE EXAMINATION - JULY/AUGUST 2024

SUBJECT: GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY

Marks: 60

Duration: 165 mins.

SECTION A -GENERAL HUMAN PHYSIOLOGY

Answer all the questions.

Write brief, clear and legible answers.

Illustrate your answers with diagrams and flow charts wherever appropriate

- 1A) Give the normal serum calcium level. Name the hormones that regulate serum calcium level.
Explain the action of any ONE in detail (½+1½+3 = 5)
- 1B) Draw and explain oxygen dissociation curve. Mention the TWO factors that shift the curve to the right and ONE factor to left (2+2+1 = 5)
- 2) **Write short notes on:**
- 2A) Explain the cause and symptoms of Erthyroblastosis foetalis (2+2= 4)
- 2B) Give the nerve supply to the urinary bladder and explain micturition reflex (4)
- 2C) Enumerate the functions of each lobe of cerebellum. List any Two clinical features of cerebellar lesion. (2+2 = 4)
- 2D) Describe the functions of middle ear (4)
- 2E) Define deglutition. Name the stages of deglutition. Explain the second stage of deglutition (1+1+2 = 4)

SECTION B- BIOCHEMISTRY

Answer all the questions.

- 3A) Explain factors affecting enzyme activity with suitable graphs (5)
- 3B) Write in detail the site, subcellular site and steps of beta oxidation of palmitic acid. (5)
- 4A) Explain the features of DNA structure with a neat labelled diagram (3)
- 4B) Define BMR and explain the FOUR factors affecting it (3)
- 4C) Write ONE biochemical reaction where niacin is used as coenzyme. Write a note on its deficiency manifestation (3)
- 4D) Explain the mechanism of action of steroid hormones with the help of a diagram. (3)
- 5A) Describe the missense effect caused by mutation in HbS (2)
- 5B) Define high-energy compounds and list TWO examples. (2)
- 5C) Explain the action of hormone sensitive lipase (2)
- 5D) Classify monosaccharides based on the functional group and write ONE example for each class (2)

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