

Question Paper

Exam Date & Time: 14-Jun-2023 (02:15 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST BDS DEGREE EXAMINATION - JUNE 2023
SUBJECT: GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY

Marks: 60

Duration: 165 mins.

SECTION 'A' - GENERAL HUMAN PHYSIOLOGY

All questions are compulsory.

Write brief, clear and legible answers.

Illustrate your answers with diagrams and flow charts wherever appropriate

- 1A) Name the hormones secreted by the posterior pituitary gland. Explain the actions of any **ONE** in detail. (2+3 = 5 marks)
- 1B) With the help of the neat diagram describe corticospinal tract. List any **TWO** differences between upper motor neuron lesion and lower motor neuron lesion (3+2 = 5 marks)
- 2A) Discuss the role of baroreceptors in the regulation of arterial blood pressure (4)
- 2B) What is timed vital capacity. Add a note on its clinical significance (2+2 = 4 marks)
- 2C) Explain the stages of spermatogenesis. Write any **TWO** factors regulating it. (2+2 = 4 marks)
- 2D) With the help of flow chart, explain the steps in neuromuscular transmission in skeletal muscle (4)
- 2E) Describe the cause and correction for the following refractory errors
i) Myopia ii) Hypermetropia (2+2 = 4 marks)

SECTION 'B' - BIOCHEMISTRY

Answer all the questions.

- 3A) Explain urea cycle and name any **TWO** inborn errors associated indicating enzyme defect (3+2 = 5 marks)
- 3B) Describe the biochemical functions and deficiency manifestations of vitamin D (3+2 = 5 marks)
- 4A) Write the complete reactions catalyzed by key enzymes of gluconeogenesis (3)
- 4B) Classify lipoproteins and give their functions (3)
- 4C) With the help of a neat diagram explain absorption of iron in the GIT (3)
- 4D) Explain phase II reactions of detoxification (3)
- 5A) List out any **FOUR** differences between DNA and RNA (2)
- 5B) Name the components and **ONE** inhibitor of complex III of electron transport chain (2)
- 5C) What are causes and compensatory mechanism of respiratory acidosis (2)
- 5D) Enumerate any **FOUR** functions of dietary fibres (2)

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