

Question Paper

Exam Date & Time: 08-Dec-2022 (02:30 PM - 05:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.TECH END SEMESTER EXAMINATIONS, DEC 2022

ANATOMY AND PHYSIOLOGY [BME 2152]

Marks: 50

Duration: 180 mins.

Answer all the questions.

Instructions to Candidates:

1. Answer ALL questions.
2. Missing data may be suitably assumed.
3. Draw neat and relevant diagrams wherever necessary.

- 1) Classify the joints. (3)

A)
B) Name the arteries supplying the heart, and write a note on clinical implications of arteries supplying heart. (3)

C) Name the paranasal air sinuses. Mention their functions and clinical implications. (4)
- 2) Mention the parts of digestive system. (3)

A)
B) Describe the stomach. (3)

C) Mention the components of urinary system. Briefly describe the kidney. (4)
- 3) Mention the parts of female reproductive system. (2)

A)
B) Briefly describe the functional areas of cerebrum. Add a note on their clinical implication. (3)

C) (i) Mention the causes for different waves of a normal electrocardiogram (ECG). And list any THREE clinical uses of ECG. (5)

(ii) Mention TWO differences between pulmonary circulation and systemic circulation.
- 4) Define electromyogram (EMG). List the clinical uses of EMG. (3)

A)
B) Describe the regulation of respiration by central chemoreceptors. (3)

C) (i) Define resting membrane potential (RMP) and mention the normal value of RMP in a nerve cell. (4)

(ii) Mention any TWO functions of red blood cells.
- 5) Draw labelled diagram of a nephron and mention the functions of different parts of the nephron. (3)

- A)
- B) In the form of a line diagram, describe the cause and correction of myopia. (3)
- C) (i) Classify sensory receptors depending on the type of stimulus. (4)
- (ii) Mention TWO clinical uses of electroencephalogram (EEG).

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