

Question Paper

Exam Date & Time: 01-Dec-2022 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.TECH END SEMESTER EXAMINATIONS, NOV/DEC 2022

BASIC CLINICAL SCIENCE - I [BME 3151]

Marks: 50

Duration: 180 mins.

Answer all the questions.

Instructions to Candidates:

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

- 1) List the ECG findings in Left bundle branch block. (3)
 - A)
 - B) Discuss the absolute contraindications of treadmill test. (3)
 - C) Elaborate the parts of conduction system of the heart. (4)
- 2) Why is multidisciplinary approach essential for cancer management? (3)
 - A)
 - B) Which tumours are best suited for treatment with brachytherapy? (3)
 - C) Explain intracavitary brachytherapy for cancer of the cervix (4)
- 3) Why is multidisciplinary approach essential for cancer management? (3)
 - A)
 - B) Why tungsten is selected as the target in x ray producing machines? (3)
 - C) Define Films. Enumerate the layers of Film with diagram. Explain sensitivity speck. (4)
- 4) Describe X-ray tube construction with schematic diagram. (5)
 - A)
 - B) Name all the factors affecting Radiographic quality and describe any one of the factors. (3)
 - C) Explain different stages of normal healing of bone. (2)
- 5) Enumerate different materials that can be used for making internal orthopaedic implants. (3)
 - A)
 - B) Classify the types of joints and dislocations in the body with examples of each. (3)

- C) Write a note on engineering consideration in the design of orthopaedic appliances for prosthesis of the joints. (4)

-----End-----