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MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

A Constituent Institution of Manipal University

VI SEMESTER B.Tech.(BME) DEGREE MAKE-UP EXAMINATIONS, JUNE 2018

SUBJECT: BASIC CLINICAL SCIENCES III (BME 3201)
(REVISED CREDIT SYSTEM)

Monday, 11th June 2018 : 2 to 5 pm

TIME: 3 HOURS

MAX. MARKS: 100

Instructions to Candidates:

- 1. Answer ALL questions from PART-A, PART-B and PART-C. Use separate answer books for PART-A, PART-B and PART-C.**
- 2. Draw labeled diagram wherever necessary.**

PART- A. RADIOLOGY (Max. Marks 30)

- Q1) Define radiographic quality. Enumerate factors affecting Radiographic Quality. 10
Describe any four in detail.
- Q2) What are the types of digital Radiography? Describe any one type in detail. 10
- Q3) Enumerate the equipment used in mammography. What is the target material/s and 10
focal spot size in mammography? Describe about the film screen combination used in
mammography.

PART- B. RADIOTHERAPY. (Max. Marks 40)

- Q1) Define Acute Radiation Syndrome. (ARS). What are the various types of ARS? 2+3+5
Describe in detail any one syndrome.
- Q2) What is radio-sensitivity and radio-curability? List the various modifiers of radiation 2+2+6
response.
- Q3) What is Fractionation in radiation therapy? What are the various fractionation 2+4+4
schedules? Describe in detail any one schedule of Fractionation.
- Q4) Write briefly about the in built safety features of a Remote After Loading 10
Brachytherapy unit?

PART-C. NEUROLOGY (Max. Marks 30)

- Q1) Describe resting membrane potential and action potential. 10
- Q2) Describe briefly about the structure of neuromuscular junction. Explain about transmission across a neuromuscular junction. 10
- Q3) Describe Electro encephalography. 10