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MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

A Constituent Institution of Manipal University

IV SEMESTER B.Tech. (BME) DEGREE MAKE-UP EXAMINATIONS, JUNE 2017.

SUBJECT: BASIC CLINICAL SCIENCES-I (BME 2204)
(REVISED CREDIT SYSTEM)

Wednesday, 21st June 2017, 2 to 5 pm

TIME: 3 HOURS

MAX. MARKS: 100

Instructions to Candidates:

- 1. Answer All questions of PART-A, PART-B and PART-C**
- 2. Use separate answer books for PART-A, Part-B and PART-C**
- 3. Draw labeled diagram wherever necessary**

PART-A CARDIOLOGY (Max. Marks 30)

- Q1) Write a note on basic pulse generator circuits and electrical aspects of cardiac pacemakers 10
- Q2) Write a note on 5+5
(i) Atrial enlargement (ii) Doppler Echocardiography
- Q3) (i) Explain Indication, Test protocol, of tread mill stress test. 5+5
(ii) Explain coronary stents and balloon types in detail.

PART-B. ANAESTHESIOLOGY (Max. Marks 40)

- Q1) Define Boyles law and Charles law. Mention its application in anaesthesia. 10
- Q2) What is Beer Lamberts law? Write a note on pulseoximetry? 10
- Q3) Define saturated vapour pressure and boiling point? Briefly outline the working principle of tec 6 vaporisers. 10
- Q4) What is static electricity? How do you prevent the acculuation of static electricity in the operating room? 10

PART-C. ENT. (Max. Marks 30)

- Q1) Describe the principle, types and uses of Endoscopes in ENT. 3+3+4
- Q2) (i) Enumerate the powered instruments used in ENT. 4+3+3
(ii) What is Cryosurgery? Describe its advantages and applications in ENT.
- Q3) Enumerate the parts of the larynx. Write a note on physiology of larynx. 5+5