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MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

A Constituent Institution of Manipal University

IV SEM B.Tech. (BME) DEGREE END-SEMESTER EXAMINATIONS, APRIL/MAY 2017.

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

Friday, 28th April 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) Draw Einthoven triangle and explain the lead system for chest leads 10
- Q2) Explain pacemaker lead types and lead related complication. 5+5
- Q3) (i) Explain LVH and RVH in ECG 4
- (ii) Write a short note on Intra-aortic balloon pump and M-mode, 2D Echocardiography. 3+3

PART-B. ANAESTHESIOLOGY (Max. Marks 40)

- Q1) Define venturis principle with a neat labelled diagram? What are its application in anaesthesia? 10
- Q2) What are the different principles used for end tidal carbon dioxide monitoring? Explain with diagram 10
- Q3) What are the indications advantages and disadvantages of central venous pressure monitoring? 10
- Q4) Write a note on flow meters 10

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

- Q1) Enumerate the different methods of post laryngectomy speech rehabilitation. Write a note on any one method of speech rehabilitation. 5+5
- Q2) (i) What is LASER and principle of LASER? 4+3+3
(ii) Give the uses of CO_2 LASER in ENT.
(iii) What are the precautions to be taken while using LASER?
- Q3) (i) Write a note on transformer mechanism of middle ear. 5+5
(ii) Draw a neat labeled diagram of organ of corti.