Reg. No.										

MANIPAL INSTITUTE OF TECHNOLOGY

(A constituent unit of MAHE, Manipal 576104)

V SEMESTER B.Tech. (BME) DEGREE MAKE-UP EXAMINATIONS, DEC/JAN 2018-19

SUBJECT: BASIC CLINICAL SCIENCES II (BME 3101)
(REVISED CREDIT SYSTEM)
Friday, 21st December, 2018 : 2.00 PM to 5.00 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 neat labeled diagram wherever necessary.**

PART- A. OPHTHALMOLOGY (Max. Marks 40)

1) Write short notes on (i) Contact lens (ii) Slit lamp bio-microscope — 5+5

2) Enumerate ***two*** instruments used for the diagnosis of retinal detachment. Describe any one of them in detail. — 4+6

3) Define perimetry. List ***two*** types of perimeters. Discuss one type in detail. — 3+3+4

4) What is LASER? List ***three*** uses of Laser in Ophthalmology. Enumerate any ***three*** principles of laser tissue interaction and name one LASER of each. — 1+3+6

PART- B. ORTHOPAEDICS (Max. Marks 30)

1) Classify fractures. Discuss general principles of management of fractures. — 10

2) Discuss arthroscopy circuit. Discuss indications, advantages and complications of arthroscopy. — 10

3) Discuss the limb length measurement in upper and lower limbs. Discuss the range of movements in hip joint. Discuss the general causes for restriction of joint movements. — 10

PART-C. SPEECH AND HEARING (Max. Marks 30)

1)	Explain the basic principle of hearing aid and discuss the role of DSP in it.	10
2)	Explain the role of biomedical engineers in the field of speech and hearing.	10
3)	Explain the working principle of Auditory brainstem response (ABR/BERA) with neat diagram.	10