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# MANIPAL INSTITUTE OF TECHNOLOGY

## MANIPAL

A Constituent Institution of Manipal University

**V SEMESTER B.Tech. (BME) DEGREE MAKE-UP EXAMINATIONS, DEC/JAN 2016-17**

**SUBJECT: BASIC CLINICAL SCIENCES II (BME 3101)**  
**(REVISED CREDIT SYSTEM)**

**Tuesday, 27<sup>th</sup> December, 2016 : 2.00 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 labeled diagram wherever necessary.

**PART- A. OPHTHALMOLOGY (Max. Marks 40)**

- 1) Discuss Slit lamp bio-microscope with note on any 5 accessories. **5+5**
- 2) Write briefly on the uses of **Contact lens**. Discuss electrophysiological tests. **5+5**
- 3) Discuss Optical Coherence tomography and 4 conditions where it is used in ophthalmology **6+4**
- 4) Discuss the process of **Fundus Fluorescein Angiography** and mention 4 diseases of the eye where it is used. **6+4**

**PART- B. ORTHOPAEDICS (Max. Marks 30)**

- 1) Classify fractures. Describe the implants used in management of fractures. **10**
- 2) Describe the common tractions and muscle strengthening exercises. **10**
- 3) Write short answers on : **5+5**  
(i) Bone cement      (ii) Arthroscopy

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

- 1) Define hearing aid. Explain the working principle of digital hearing aid. **10**
- 2) Define cochlear implant. Explain the working principle of cochlear implant. **10**
- 3) Define EPD's. Explain different types of EPD's and its purpose. **10**