Reg. No.										

MANIPAL INSTITUTE OF TECHNOLOGY
(A Constituent Institute of – Manipal University)
Manipal – 576 104

III SEMESTER B.Tech. (BME) DEGREE END SEM. EXAMINATIONS, NOV/ DEC- 2015.

SUBJECT: ANATOMY AND PHYSIOLOGY(BME 207)
(REVISED CREDIT SYSTEM)
Saturday, 5th December 2015, 9 am to 12 noon

TIME: 3 HOURS **MAX. MARKS: 100**

Instructions to Candidates:

1. **Answer any FIVE questions from part A and FIVE questions from part B. Use separate answer books.**
2. **Draw labeled diagram wherever necessary**

PART-A ANATOMY (Max.Marks: 50)

1a) Name the different types of epithelium with one example for each. **5**

1b) Name the different types of bones with one example for each. **5**

2a) Describe the anatomy of the left lung. **5**

2b) Explain CSF (Cerebrospinal fluid) **5**

3) Describe the anatomy of, **4+6**
(i) Pancreas. (ii) Liver.

4) Describe the cerebrum under following headings. **3+7**
(i) External features. (ii) Sulsi, gyri and functional areas on superolateral surface.

5a) Enumerate any four endocrine glands of the body. Add a note on pituitary gland. **5**

5b) Write a note on spinal cord. **5**

6) Enumerate the parts of the female reproductive system. Describe the anatomy of the uterus. **2+8**

PART-B PHYSIOLOGY (Max. Marks: 50)

1a)	What is the normal resting membrane potential? How is it maintained constant.	**1+6**
1b)	What is a sarcomere and what is its function.	**1+2**
2a)	Explain briefly chemical regulation of respiration.	**7**
2b)	Draw a neat labeled diagram of respiratory membrane and list factors that's influence gaseous exchange across the membrane.	**3**
3a)	Describe the mechanism involved in colour vision. Add a note on 'Dark adaptation".	**4+3**
3b)	Describe Myopia and its correction.	**3**
4a)	Trace the pain pathway for lower limb upto its termination.	**7**
4b)	Write briefly on referred pain.	**3**
5a)	Draw a labelled diagram of a nephron. Give the functions of each part of it.	**3+4**
5b)	Define GFR. Give the normal volume. Name the factors influencing it.	**3**
6a)	Define cardiac output and give its normal value. Mention any two conditions where cardiac output is increased.	**2+5**
6b)	Mention any three properties of cardiac muscle. Explain any one.	**3**