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**MANIPAL INSTITUTE OF TECHNOLOGY**  
(A constituent unit of MAHE, Manipal 576104)

**III SEMESTER B.Tech. (BME) DEGREE END SEM. EXAMINATIONS, NOV/DEC 2018.**

**SUBJECT: ANATOMY AND PHYSIOLOGY(BME 2105)**

**Thursday, 29<sup>th</sup> November 2018, 9 AM to 12 NOON**

**TIME: 3 HOURS**

**MAX. MARKS: 50**

**Instructions to Candidates:**

- 1. Answer all questions from PART A and PART B. Use separate answer books for PART A and PART B.**
- 2. Draw labeled diagram wherever necessary**

**PART-A ANATOMY (Max.Marks: 25)**

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|----|--|-----|
| 1) | Enumerate all the cranial nerves.                          | 5   |
| 2) | (i) Enumerate the parts of the female reproductive system. | 2+3 |
|    | (ii) Name the parts of the uterus.                         |     |
| 3) | Write a note on the following.                             | 3+2 |
|    | (i) Spinal cord                      (ii) Testis           |     |
| 4) | Describe the external features of the following            | 2+3 |
|    | (i) Heart                      (ii) Right lung.            |     |
| 5) | List the difference between thin and thick skin            | 5   |

**PART-B PHYSIOLOGY (Max. Marks: 25)**

- 1) Classify WBC (leukocytes) under Leishmans stain and mention the functions of each. **5**
- 2) Draw neat labelled diagram of monophasic action potential. Mention the ionic causes. **5**
- 3) Discuss the forms in which Oxygen is transported in human body. **5**
- 4) (i) Define cardiac output. What is the normal value? Mention determinants of cardiac output. **3+2**  
(ii) What are the receptors of hearing (audition)? Draw the neat diagram of the same
- 5) (i) Mention lobes of cerebral cortex. Mention one function of each. **3+2**  
(ii) Name two ascending tracts of spinal cord.