

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

**CLASS: BPHARM  
BRANCH: PHARMACY**

**SEMESTER: I  
SESSION: MO25**

**SUBJECT: BP101THUMAN ANATOMY AND PHYSIOLOGY I**

**TIME: 3.00 Hours**

**FULL MARK: 75**

**INSTRUCTIONS:**

1. The missing data, if any, may be assumed suitably.
2. Before attempting the question paper, be sure that you have got the correct question paper.
3. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
4. This question paper consists of (03) three parts. Read the part wise instructions before attempting the questions.

**PART-I**

**Objective types questions (Instruction: Answer all questions)**

Q1. (10 x 2 = 20 Marks)

- A. Write different stages of interphase in cell cycle.
- B. Define the functions of Ribosomes and Golgi bodies.
- C. Define Sarcomere.
- D. Differentiate True ribs and False ribs.
- E. Define Erythrocytosis and Erythrocytopenia.
- F. Write the names and percentage of different types of Leucocytes.
- G. Write the names and shape of Ear ossicles.
- H. Define different peaks in ECG.
- I. Differentiate Artries and Veins.
- J. Define Heart sounds.

**PART-II**

**Short Answers**

**(Instruction: Answer seven out of nine questions)**

(7 x 5 = 35 Marks)

- Q2. Define cell signalling. Explain the types of intercellular signalling pathways.
- Q3. Define joints and explain different types of joints with examples.
- Q4. Describe the structure of skeletal muscle. Explain the mechanism of muscle contraction.
- Q5. Illustrate the mechanism of blood coagulation in detail.
- Q6. Describe different components of lymphatic system along with their functions
- Q7. Describe the anatomy and physiology of Eye.
- Q8. Define the classification of nervous system. Explain cranial nerves in detail.
- Q9. Describe the structure and functions of heart.
- Q10. Write brief notes on Cell junctions and Cardiac Cycle.

**PART-III**

**Long Answers**

**(Instruction: Answer two out of three questions)**

(2 x 10 = 20 marks)

- Q11. Describe the structure and functions of Muscular tissue and Nervous tissue.
- Q12. Describe the structure and functions of the bones present in Pectoral girdle and forelimb.
- Q13. Illustrate various components of conduction system of the Heart. Describe different types of circulations in the body.