

Code No: 182AN

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech I Year II Semester Examinations, September - 2023

HUMAN ANATOMY AND PHYSIOLOGY - I

(Pharmaceutical Engineering)

Time: 3 Hours

Max. Marks: 60

Note: This question paper contains two parts A and B.i) **Part - A** for 10 marks, ii) **Part - B** for 50 marks.

- Part-A is a compulsory question which consists of ten sub-questions from all units carrying equal marks.
- Part-B consists of **ten questions** (numbered from 2 to 11) **carrying 10 marks each**. From each unit, there are two questions and the student should answer one of them. Hence, the student should answer five questions from Part-B.

PART- A**(10 Marks)**

- List the basic chemical constituents of living body. [1]
- What is the function of Golgi complex? [1]
- What is an Ion channel? [1]
- What is transported across Cell membrane? [1]
- List the names of Cranial nerves. [1]
- List the names of Spinal nerves. [1]
- Define hormone. [1]
- How hormone secretion is regulated? [1]
- Name parts of ear maintaining equilibrium and hearing. [1]
- Name photo receptors of eye. [1]

PART-B**(50 Marks)**

- Explain Cell membrane components.
 - Explain bimolecular lipid layer. [5+5]
- OR**
- Discuss Mitosis cell division.
 - Explain the structure and functions of Membrane proteins. [5+5]
- Explain microscopic structure of Smooth muscle.
 - Explain Connective tissue. [5+5]
- OR**
- Describe Voltage gated channels.
 - Discuss Active transport. [5+5]
- Explain the functional areas of cerebral cortex.
 - Explain the structure and functions of hypothalamus. [5+5]
- OR**
- Discuss Neurohumoral transmission in Parasympathetic nervous system.
 - Explain the structure and functions of cerebellum. [5+5]

