

Code No: 182AN

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech I Year II Semester Examinations, January/February - 2024

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)**

- Write the composition of cell membrane. [1]
- Write the role of Golgi apparatus. [1]
- Write the role of epithelial tissues. [1]
- Define Homeostasis. [1]
- Write the names of various parts of CNS. [1]
- Write the role of autonomic nervous system. [1]
- Write the role of thyroid gland. [1]
- Write the role of pancreas. [1]
- Write the role of retina. [1]
- Write the names of bones present in middle ear. [1]

PART - B**(50 Marks)**

- Describe the structure of cell with neat and labelled diagram.
- Explain the cell cycle process with neat and labelled diagram. [5+5]

OR

- Write the composition of DNA along with its functions.
- Write in detail about basic chemical constituents of living body. [5+5]

- Differentiate various types of epithelial tissues with neat and labelled diagrams with their functions.

- Describe about muscular tissues with neat and labelled diagrams with their functions. [5+5]

OR

- Explain the various processes involved in transport of molecules across the cell membrane.

- Explain in detail about ion channels with neat and labelled diagram along with their functions. [5+5]

- 6.a) Write the functions and different parts of brain and spinal cord.
b) Explain the specialized functions of the brain along with suitable examples. [5+5]

OR

- 7.a) Differentiate the various parts of autonomic nervous system along with their functions.
b) Explain the process of neuro humoral transmission in the nervous system. [5+5]

- 8.a) Write the Anatomy and Physiology of anterior pituitary gland.
b) Write the Anatomy and Physiology of parathyroid gland. [5+5]

OR

- 9.a) Explain the control of hormone secretion with suitable examples.
b) Write the Anatomy and Physiology of posterior pituitary gland. [5+5]

- 10.a) Write the anatomy of eye with neat and clean diagram.
b) Write the physiology of eye. [5+5]

OR

- 11.a) Write the anatomy of skin.
b) Explain about taste buds with neat and clean diagram. [5+5]

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