

III. Short answers (Answer seven out of nine questions) 5x7=35

- 1) Explain the physiology of skeletal muscle contraction and relaxation. 5
- 2) What is somatic and reproductive cell division? Discuss in detail. (2+3)
- 3) What do you mean by transduction? Discuss about signal transduction pathways. (2+3)
- 4) Write down the characteristics of different synovial joints with examples. 5
- 5) What is the composition of lymph? How lymph is formed. 2+3=5
- 6) What is autonomic nervous system? Discuss the function and effects of autonomic nervous system. (2+3)
- 7) What is the process of sensation? Discuss about sensory receptors? (2+3)
- 8) Differentiate between the various layers of epidermis. 5
- 9) Discuss the physiology of Gustation in detail. 5

UG Odd Semester (CBCS) Examination, March 2023

PHARMACEUTICAL SCIENCES

(1st Semester)

Course No: BP 101T

(Human Anatomy and Physiology I-Theory)

Full Marks: 75

Time: 3 Hours

The figures in the margin indicate full marks for the questions

I(A). Multiple choice questions

1x 10=10

1. Chromosome duplication occurs in which phase
 - a) G₁
 - b) G₂
 - c) S
 - d) Prophase
2. Which of the following layer contain stem cells
 - a) Stratum corneum
 - b) Stratum basale
 - c) Stratum spinosum
 - d) Stratum granulosum
3. Aerobic respiration is performed by
 - a) Peroxisomes
 - b) Ribosomes
 - c) Mitochondria
 - d) Golgi bodies

(Turn Over)

4. The term suicidal bags is used for
 - a) Lysosomes
 - b) Peroxisomes
 - c) Mitochondria
 - d) Ribosomes
5. Ribosomal subunits are synthesized in
 - a) Nucleolus
 - b) Nucleoplasm
 - c) Cytoplasm
 - d) Ribosomes
6. The function of protein sorting, lipid sorting and secretion is performed by
 - a) Rough ER
 - b) Smooth ER
 - c) Golgi apparatus
 - d) Peroxisomes
7. What are tendons and ligaments composed of ?
 - a) Dense connective tissue
 - b) Liquid connective tissue
 - c) Muscular tissue
 - d) Epithelial tissue
8. Preganglionic neurons lie within
 - a) Parasympathetic nervous system
 - b) CNS
 - c) Peripheral nervous system
 - d) Sympathetic nervous system
9. The eye lens is
 - a) Concave
 - b) Convex

- c) Biconcave
 - d) Biconvex
10. Which of the following tissues lines urinary bladder
 - a) Pseudostratified columnar epithelium
 - b) Stratified columnar epithelium
 - c) Transitional epithelium
 - d) Non ciliated simple columnar epithelium

I(B). Objective type (Answer the following in brief)

2x5=10

- 1) What are the types of transport process?
- 2) Write any two microscopic differences between skeletal and cardiac muscle.
- 3) Write any two articulations in the axial skeleton.
- 4) Name various disorders of ear.
- 5) Differentiate between epiphysis and diaphysis (any two points).

II. Long answers (Answer two out of three questions)

10x2=20

- 1) Classify axial skeleton. Explain the location and anatomical structure of ethmoid and maxilla. 4+6=10
- 2) What are the factors affecting stroke volume? Explain the regulation of blood pressure by chemoreceptors. 4+6=10
- 3) Differentiate between neutrophil and monocytes. Write down the various stages of erythropoiesis and role of maturation factors. 4+6=10

(Turn Over)