



Sessional II (Even) Semester Examination, May 2025

Roll no.

Name of the Course and semester: **B.Pharm (II semester)**

Name of the Paper: **Human Anatomy and Physiology-II**

Paper Code: **BP-201T**

Time: **1.5-hour**

Maximum Marks: **30**

Note:

- (i) This question paper contains three sections.
- (ii) All the questions are compulsory.

Section-A

Q1. Multiple Choice Questions – Attempt all questions

(10 X 1 = 10 Marks)

- a) Which of the following muscles is primarily responsible for inspiration during quiet breathing? CO-3
 - i. Internal intercostals
 - ii. Rectus abdominis
 - iii. Diaphragm
 - iv. External oblique
- b) What is the main function of the loop of Henle? CO-3
 - i. Filtration of blood
 - ii. Reabsorption of water and salts
 - iii. Secretion of drugs
 - iv. Urine storage
- c) What is the correct sequence of air passage from the nose to the alveoli? CO-3
 - i. Nasal cavity → Pharynx → Larynx → Trachea → Bronchi → Alveoli
 - ii. Nasal cavity → Trachea → Pharynx → Bronchi → Larynx → Alveoli
 - iii. Nasal cavity → Larynx → Pharynx → Bronchi → Trachea → Alveoli
 - iv. Nasal cavity → Alveoli → Bronchi → Trachea → Larynx → Pharynx
- d) What is the role of surfactant in the alveoli? CO-3
 - i. Enhances oxygen diffusion
 - ii. Prevents alveolar collapse
 - iii. Increases blood flow
 - iv. Stimulates ciliary movement
- e) Which of the following cells in the alveoli are responsible for the production of pulmonary surfactant? CO-3
 - i) Type I pneumocytes
 - ii) Type II pneumocytes
 - iii) Alveolar macrophages

- iv) Goblet cells
- f) Which part of the brain regulates the rhythm of breathing? CO-4
 - i. Hypothalamus
 - ii. Cerebellum
 - iii. Medulla oblongata
 - iv. Thalamus
- g) Which of the following glands is both endocrine and exocrine in nature? CO-4
 - i. Pituitary gland
 - ii. Adrenal gland
 - iii. Pancreas
 - iv. Thyroid gland
- h) Which of the following hormones is responsible for increasing blood calcium levels? CO-4
 - i. Calcitonin
 - ii. Thyroxine
 - iii. Parathyroid hormone (PTH)
 - iv. Insulin
- i) Which of the following pairs is correctly matched? CO-4
 - i. Adrenal cortex – Epinephrine
 - ii. Thyroid gland – Insulin
 - iii. Pancreas – Glucagon
 - iv. Anterior pituitary – Oxytocin
- j) What is the function of luteinizing hormone (LH) in females? CO-4
 - i. Stimulates milk production
 - ii. Stimulates ovulation
 - iii. Stimulates follicle development
 - iv. Maintains pregnancy

Section B

Q. 2 Short Questions: Attempt any two questions (2X 5 = 10 Marks)

- a) Classify the Hormones with example. Elaborate on the mechanism of action of water-soluble hormone. CO-4
- b) Explain the role of Renin Angiotensin system in kidney. CO-3
- c) Enlist various organs of respiratory system and write the mechanism of respirations. CO-3

Section C

Q. 3 Long questions: Attempt any one question (1X10= 10 Marks)

- a) Write the hormones secreted by thyroid and adrenal gland and explain their function. CO-4
- b) Explain the physiology of urine formation. CO-3