

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2024
(Fifth Semester)

Branch – ZOOLOGY

PHYSIOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Identify the organ where the digestion of protein begins?
(i) Mouth (ii) Stomach
(iii) Small intestine (iv) Large intestine
- 2 Name the metal present in hemoglobin.
(i) Copper (ii) Zinc
(iii) Iron (iv) Magnesium
- 3 What is the structural and functional unit of kidney?
(i) Glomerulus (ii) Nephron
(iii) Nephridium (iv) Loop of Henle
- 4 Find the colored part of the eye that regulates the amount of light entering the eye.
(i) Cornea (ii) Iris
(iii) Fovea (iv) Macula
- 5 Which gland is responsible for the secretion of Melatonin?
(i) Pituitary gland (ii) Parathyroid gland
(iii) Prostate gland (iv) Pineal gland

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. Narrate the four main anatomical divisions of stomach.
OR
b. Describe the transamination reaction.
- 7 a. Outline the cardiac cycle.
OR
b. Summarise the structure and functions of WBC.
- 8 a. Compare ammonotelism and ureotelism.
OR
b. Analyze the steps involved in urine formation.
- 9 a. Distinguish between skeletal muscle and cardiac muscle.
OR
b. Explain the parts of inner ear and their role in hearing.

Cont...

- 10 a. Sketch the structure of reflex action and mechanism.
OR
b. State the hormones secreted by posterior lobe of pituitary gland with its functions.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 11 a. Examine the digestion of carbohydrates.
OR
b. Summarise the steps involved in beta-oxidation of fatty acids.
- 12 a. Elucidate the transportation of air in the lungs and explain CO_2 transportation.
OR
b. Highlight the process of blood clotting.
- 13 a. Enumerate the structure of kidney and mention their role.
OR
b. Classify the osmoregulation in animals.
- 14 a. Explain the contraction of skeletal muscle.
OR
b. Infer the mechanism of hearing.
- 15 a. Describe in detail about the sex-related hormones.
OR
b. Discuss the concept of the biological clock.

Z-Z-Z

END