

(FOR THE CANDIDATES ADMITTED

21UZY611

DURING THE ACADEMIC YEAR 20

ONLY)

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : MONTH AND YEAR

B.Sc.ZOOLOGY

MAXIMUM MARKS: 70

SEMESTER: VI

TIME : 3 HOURS

PART - III

21UZY611 – ANIMAL PHYSIOLOGY & ENDOCRINOLOGY

SECTION - A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

(K1)

1. In which form is carbon dioxide primarily transported in the blood?

a) Dissolved in plasma b) Bound to hemoglobin

As bicarbonate ions d) As free gas molecules

c)

2. Which of the following organs in fish plays a crucial role in osmoregulation by regulating the uptake and excretion of ions?

a) Gills b) Liver c) Heart d) Stomach

3. Where does reabsorption of essential substances like glucose and amino acids occur in the nephron?

a) Proximal convoluted tubule

b) Loop of Henle

c)

Distal convoluted tubule

d) Collecting duct

4. Which of the following hormones is primarily responsible for regulating calcium levels in the blood?

a) Insulin b) Thyroxine c) Parathyroid hormone d) Adrenaline

5. What is the primary cause of goiter?

a) Vitamin deficiency b) Iodine deficiency c) Iron deficiency d) Protein deficiency

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

(K2)

6. Define respiration.

7. Write about pacemakers.

8. Define neuro muscular junction.

9. Brief endocrine glands.

10. What is infertility?

SECTION – B

(5 X 4 = 20 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) Compare and contrast aerobic and anaerobic respiration.

(OR)

b) How are gastrointestinal movements and secretions regulated by both neural and endocrine mechanisms?

(CONT....2)

12. a) Explain the differences between myogenic and neurogenic hearts.
(OR)
b) Explore the function of phonoreceptors in the ear. How do these receptors contribute to the perception of sound?
13. a) Discuss the significance of calcium ions in the regulation of muscle contraction.
(OR)
b) Define reflex action and describe the components of a reflex arc.
14. a) List the scope of endocrinology.
(OR)
b) Elaborate the Hormonal Interactions - Feedback Control Mechanisms.
15. a) Give notes on steroid hormone.
(OR)
b) Evaluate the role of peptide hormone in human physiology.

SECTION - C**(4 X 10 = 40 MARKS)****ANSWER ANY FOUR OUT OF SIX QUESTIONS (K4 (Or) K5)****(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS (FROM Qn. No : 17 to 21))**

16. Write the mechanisms involved in the transport of oxygen and carbon dioxide in the human circulatory system. How are these gases exchanged at the respiratory surfaces?
17. Describe the key organs involved in the digestive system and their functions.
18. Discuss the composition of lymph and compare it to that of blood. What are the functions of lymph in the human body?
19. Detail the process of urine formation in humans, highlighting the structural organization of Nephron.
20. Illustrate the structure and function of Pituitary gland.
21. Substantiate the role of Pancreas in the control Blood sugar level. Add a note on Diabetes Mellitus.
