Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with A++ Grade by NAAC. Recognised by UGC under Section 12B
Coimbatore - 641 043, Tamil Nadu, India
Continuous Internal Assessment - I August, 2025
Semester V

Class: IIII UG **Time: 2 Hours**
Major: Zoology **Marks: 60**

23BZODE3 – MAMMALIAN PHYSIOLOGY

Course Outcomes:

CO1 Realize the mechanism and regulation of breathing and the process of circulation
CO2 Examine how mammalian body gets nutrition
CO3 Study the process of digestion and excretion
CO4 Elucidate the organization of nervous system and process of nerve conduction
CO5 Explicate the process of vision and hearing

Part – A **6×1=6**
Answer the following

1 The formation of red blood cells is known as CO1K1
a) erythropoiesis b) leukopoiesis c) thrombopoiesis d) megakaryopoiesis

2 The respiratory quotient represents the CO1K1
a) Volume of oxygen consumed to the volume of carbon dioxide produced
b) Volume of carbon dioxide produced to the volume of oxygen consumed
c) Volume of oxygen produced to the volume of carbon dioxide consumed
d) Volume of carbon dioxide consumed to the volume of oxygen produced

3 A balanced diet is eating CO2K2
(a) only one type of food (b) only sweet foods
(c) a variety of foods in the right amounts (d) only fruits and vegetables

4 Which of the following is the functional unit of the kidney? CO2K2
(a) Glomerulus (b) Nephron (c) Renal corpuscle (d) Bowman's capsule

5 The myelin sheath is derived from the CO3K1
(a) Microglia (b) Neuroglial cells (c) Schwann cells (d) Nerve cells

6 Which of the following is NOT a function of glial cells? CO3K1
(a) Providing structural support to neurons.
(b) Conducting nerve impulses.
(c) Regulating the extracellular environment.
(d) Participating in brain development.

Part – B **3×6=18**
Answer should not exceed 400 words

7. a Give an account on the mechanism of breathing CO1K2
(or)
b. Outline the steps involved in cardiac cycle CO1K1

8. a. Comment on the role of gastrointestinal hormones in digestion CO2K3
(or)
b. Interpret the role of rennin and aldosterone in excretion CO2K4

9. a. Explain the levels of organization of a nervous system CO3K2
(or)
b. With a neat labelled sketch explain the structure of a neuron CO3K2

Part - C **3×12=36**
Answer should not exceed 800 words

10. a Illustrate the different ways in which carbondioxide is transported in the human body CO1K1
(or)
b. Describe the cellular components of blood, including their structure and functions. CO1K1

11. a. Elaborate the process of urine formation and regulation CO2K1
(or)
b. Discuss the process of digestion and absorption of carbohydrates CO2K1

12. a Explain in detail the types of glial cells and their functions CO3K2
(or)
b. Elucidate the types and functions of neuron CO3K2