



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: III UG
Major: Zoology

Time: 2 Hours
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
Answer the following

6×1=6

- 1 The formation of red blood cells is known as
a) erythropoiesis b) leukopoiesis c) thrombopoiesis d) megakaryopoiesis CO1K1
- 2 The respiratory quotient represents the
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 CO1K1
- 3 A balanced diet is eating
(a) only one type of food (b) only sweet foods
(c) a variety of foods in the right amounts (d) only fruits and vegetables CO2K2
- 4 Which of the following is the functional unit of the kidney?
(a) Glomerulus (b) Nephron (c) Renal corpuscle (d) Bowman's capsule CO2K2
- 5 The myelin sheath is derived from the
(a) Microglia (b) Neuroglial cells (c) Schwann cells (d) Nerve cells CO3K1
- 6 Which of the following is NOT a function of glial cells?
(a) Providing structural support to neurons.
(b) Conducting nerve impulses.
(c) Regulating the extracellular environment.
(d) Participating in brain development. CO3K1

Part – B
Answer should not exceed 400 words

3×6=18

7. a Give an account on the mechanism of breathing
(or)
b. Outline the steps involved in cardiac cycle CO1K2
8. a. Comment on the role of gastrointestinal hormones in digestion
(or)
b. Interpret the role of rennin and aldosterone in excretion CO1K1
9. a. Explain the levels of organization of a nervous system
(or)
b. With a neat labelled sketch explain the structure of a neuron CO2K3

Part - C
Answer should not exceed 800 words

3×12=36

10. a Illustrate the different ways in which carbondioxide is transported in the human body
(or)
b. Describe the cellular components of blood, including their structure and functions. CO1K1
11. a. Elaborate the process of urine formation and regulation
(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
(or)
b. Elucidate the types and functions of neuron CO3K2