

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086**  
**(For candidates admitted during the academic year 2019-2020 and thereafter)**

**B.Sc. DEGREE EXAMINATION-NOVEMBER 2023**  
**BRANCH VIA – ADVANCED ZOOLOGY AND BIOTECHNOLOGY**  
**THIRD SEMESTER**

**COURSE : MAJOR CORE**  
**PAPER : ANIMAL PHYSIOLOGY**  
**SUBJECT CODE : 19ZL/MC/AP34**  
**TIME : 3 HOURS** **MAX.MARKS:100**

**SECTION-A**

**ANSWER ALL QUESTIONS** **(10x3=30)**

1. Differentiate between mixotrophic and heterotrophic nutrition. Give examples.
2. Enumerate the indications for Artificial Respiration.
3. Mention the location and significance of the Pacemaker.
4. Give the definition and types of angioplasty.
5. List any three examples of magnetoreception in animals.
6. Comment on blood doping in sports.
7. Name the pigments found in the following chromatophores:  
a. Melanophore b. Xanthophore c. Guanophore
8. What are the functions of Bioluminescence?
9. What is Ectopic Pregnancy?
10. State any three risk factors for Alzheimer's disease.

**SECTION-B**

**ANSWER ANY FIVE QUESTIONS** **(5x6=30)**

11. Evaluate the types of feeding mechanisms in animals.
12. How is temperature regulated in Mammals?
13. Assess the role of kidney in osmoregulation.
14. Describe the endocrine glands of Arthropods.
15. List the pregnancy hormones and mention their functions.
16. Differentiate open and closed types of circulatory system.
17. Highlight the significance of sensory receptors. Add a note on electroreceptors and nociceptors.

**SECTION-C**

**ANSWER ANY TWO QUESTIONS** **(2x20=40)**

18. Explain the mechanism of respiration through gills, skin and lungs.
19. Give a detailed account on the classification of animals based on nitrogenous products excreted.
20. Describe the conduction and transmission of a nerve impulse across a neuromuscular synapse.
21. Elaborate on the causes, symptoms and treatment of the following:
  - a. Polycystic ovarian disorder (10 marks)
  - b. Atherosclerosis (10 marks)

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