



23127061

QP CODE: 23127061

Reg No :

Name :

**B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE
EXAMINATIONS, OCTOBER 2023**

Third Semester

**COMPLEMENTARY COURSE - ZY3CMT03 - ZOOLOGY - PHYSIOLOGY AND
IMMUNOLOGY**

(Common to B.Sc Biological Techniques and Specimen Preparation Model III, B.Sc Botany and Biotechnology Model III Double Main, B.Sc Botany Model I, B.Sc Botany Model II Environmental Monitoring And Management, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Horticulture and Nursery Management, B.Sc Botany Model II Plant Biotechnology, B.Sc Family & Community Science Model I, B.Sc Food Science & Quality Control Model III, B.Sc Food Technology & Quality Assurance)

2017 Admission Onwards

A3BE7BCE

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What is meant by heterotrophy?
2. Name any two fat soluble Vitamins.
3. Name the disease caused by the deficiency of Vitamin B3.
4. Differentiate hypoxia from asphyxia.
5. Mention the waves of Electrocardiogram and what does it implies?
6. What is the unit of excretory system?
7. What is meant by cholinergic neurons?
8. What is sleep?
9. Name the proteins present in the thick filament.
10. Name the immunoglobulin that crosses placenta.
11. Expand ELISA.
12. What is hypersensitivity?

(10×1=10)





Part B

Answer any **six** questions.

Each question carries **5** marks.

13. a) Explain the mechanism of the transport of oxygen in blood. (2 marks)
b) What is oxygen dissociation curve of Haemoglobin. (1 mark)
c) Explain Bohr effect and state its significance. (2 marks)
14. Explain the intrinsic and extrinsic pathway in the activation of prothrombin, which leads to the formation of blood clot to prevent blood loss.
15. Explain the mechanism of urine concentration.
16. Describe the mechanisms by which hormones regulate the reabsorption of water and salt during the urine formation.
17. Briefly explain the role of second messenger in hormonal action.
18. Draw a neatly labeled diagram of Immunoglobulin and state its function.
19. Write a note on the clinical applications of antigen-antibody reactions.
20. Discuss the role of B and T cells in immunity and how do they interact in mediating an immune response?
21. Define immunodeficiency and give an account of AIDS.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

22. Analyze the composition of blood and state the functions.
23. Explain the structure of a muscle fibre and correlate the physiological events that occur during the muscle contraction.
24. What is hypothalamo-hypophyseal portal system? Mention its function. Give an account of the hormones of the hypophysis and briefly explain their roles.
25. Elaborate on types of immunity and add note on the mechanism in each case.

(2×10=20)

