



QP CODE: 24026958



24026958

Reg No :

Name :

**B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE
EXAMINATIONS, OCTOBER 2024**

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

35BF9CFD

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 due to the deficiency of Vitamin C.
4. Differentiate aerobic and anaerobic respiration.
5. Define the term Asphyxia.
6. What is a nephron ?
7. Name two important components of urine.
8. What is Nodes of Ranvier?
9. What is muscle fatigue?
10. What are phagocytes?





11. What is the use of WIDAL test?
12. Distinguish between HIV & AIDS.

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Explain the intrinsic and extrinsic path way in the activation of prothrombin, which leads to the formation of blood clot to prevent blood loss.
14. Explain the following terms:
 - a). Anticoagulant with an example. (2 marks)
 - b). Hemophilia (1 mark)
 - c). Arteriosclerosis (1 mark)
 - d). thrombosis. (1 mark)
15. a) Give an account of hormonal control of renal function. (3 marks)
b) State the structure and function of Juxta Glomerular Apparatus. (2 marks)
16. Differentiate between the different types of Muscle.
17. Briefly describe the hormones of adenohypophysis.
18. Define Immunoglobulin and give an account of the different types.
19. Describe Immunoglobulin G and its function.
20. a). State in your own words how the antibodies produced by the cells of the immune system differ from the monoclonal antibodies prepared by the hybridoma technology. (2 marks)
b). Give a brief account of the hybridoma technology for the production of monoclonal antibodies. (3 marks)
21. What is a vaccine? How does it function in the immune system? Explain the mechanism with the help of Polio vaccine.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain in detail the composition of the liquid connective tissue. Mention the function of each component.





23. Using the help of a neatly labeled diagram of Nephron, explain the mechanism of urine formation. State the role of hormones in regulation of water and minerals in the nephron.
24. Classify hormones and give a detailed account of the various hormones of the endocrine glands stating its function.
25. Describe Anitgen - Antibody reactions and add brief notes on WIDAL, VDRL and ELISA tests.

(2×10=20)

