



QP CODE: 21101975



Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) EXAMINATION, AUGUST 2021**

**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

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Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

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

1. Name two diseases caused by the deficiency of protein.
2. Name the disease caused by the deficiency of Vitamin B1.
3. Define the partial pressure of a gas.
4. Define the term Asphyxia.
5. Distinguish between hypotension and hypertension.
6. Name the two types of nephrons.
7. What is tubular secretion?
8. What is action potential?
9. What are brain waves?
10. Define antigen.
11. Name the hypothesis which explains the mechanism of precipitation.
12. What is a retrovirus?

(10×1=10)





### Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Explain different types of nutrition.
14. a) What are leucocytes ? 1 mark  
b) Name the different types of leucocytes. 2 marks  
c) State their functions in the body. 2 marks
15. Describe the mechanisms by which hormones regulate the reabsorption of water and salt during the urine formation.
16. Analyze the reason for the pain in your muscle on the succeeding days, when you take part in a short marathon or a game involving physical exertion, without any practice.
17. What is hypothalamo-hypophysial portal system? Mention its function.
18. Draw a neatly labeled diagram of Immunoglobulin and state its function.
19. Describe Immunoglobulin G and its function ?
20. Distinguish between different types of lymphocytes.
21. Define a Vaccine. Name the type of immunity developed by vaccination. Give an account of 2 vaccines used in humans.

(6×5=30)

### Part C

Answer any **two** questions.

Each question carries **10** marks.

22. Describe the mechanism of blood clotting and add a note on haemophilia.
23. Write an essay on different types of muscles. Add a note on contractile proteins and the way they interact to achieve muscle contraction.
24. Explain the mechanism of hormonal action.
25. Describe Antigen - Antibody reactions and add brief notes on WIDAL, VDRL and ELISA tests.

(2×10=20)

