Reg. No .....

24U642

## **B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2024**

#### **SEMESTER 6 - ZOOLOGY**

COURSE : 19U6CRZOO11 - MICROBIOLOGY AND IMMUNOLOGY

(For Regular 2021 Admission and Supplementary 2020/2019 Admissions)

Time : Three Hours

Max. Marks: 60

# PART A

# Answer All (1 mark each)

- 1. What is primary response?
- 2. Define immunology.
- 3. What is a hapten?
- 4. How did Robert Koch prove germ theory?
- 5. Comment on the contributions of Bergey as a microbiologist.
- 6. Who developed immunization against small pox using cow pox virus?
- 7. Define pandemic disease.
- 8. What is viral envelope made up of?

# PART B Answer any 6 (2 marks each)

- 9. Differentiate primary and secondary infections.
- 10. Briefly explain MALT.
- 11. List out the environmental factors affecting bacterial growth.
- 12. Comment on AIDS.
- 13. How do chemicals inactivate microbes?
- 14. What are the symptoms of typhoid?
- 15. What are the advantages and disadvantages of liquid media?
- 16. Comment on opportunistic pathogens taking fungi as an example.

 $(2 \times 6 = 12)$ 

 $(1 \times 8 = 8)$ 

## PART C

### Answer any 4 (4 marks each)

- 17. Briefly explain different types of culture media based on texture.
- 18. Briefly explain the basic structure of immunoglobulin.
- 19. Briefly explain secondary lymphoid organs taking lymph nodes and spleen as examples.
- 20. Brief on the pathogen, symptoms and prophylaxis of dermatophytosis.
- 21. Comment on animal and bacterial viruses.
- 22. Briefly explain the physical methods of sterilization.

 $(4 \times 4 = 16)$ 

# PART D Answer any 2 (12 marks each)

- 23. What is hypersensitivity? Explain in detail each type.
- 24. With the help of a digram explain the bacterial anatomy.
- 25. Explain different types of immune disorders.
- 26. Explain the different types of culture media and culture techniques used in microbiology labs. (12 x 2 = 24)