

(6 pages)

Reg. No. : \_\_\_\_\_

Code No. : 30572 E Sub. Code : CMZO 52

B.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2023.

Fifth Semester

Zoology - Core

MICROBIOLOGY AND IMMUNOLOGY

(For those who joined in July 2021 - 2022)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Match the following with the Monera kingdom.  
(a) Eukaryotes  
(b) Prokaryotes  
(c) Animals  
(d) Plants

6. Identify the causative agent of Moldy bread.  
(a) agaricus (b) yeast  
(c) rhizopus (d) bacillus sp.
7. Select the primary lymphoid organ from the following.  
(a) Thymus  
(b) Bursa of fabricius  
(c) bone marrow  
(d) All of these
8. Choose the antiviral glycoprotein molecules from the following.  
(a) interferons (b) hapatens  
(c) ptyalin (d) insulin
9. Name the factor which causes hyper sensitivity.  
(a) allergens (b) pollutants  
(c) reagents (d) alkaptans

Page 3 Code No. : 30572 E

2. Tell the name of the virus which infect the animal cells.  
(a) Phytophage  
(b) Zoophage  
(c) Bacteriophage  
(d) Plasmid
3. Match the following with the Broth medium.  
(a) liquid (b) solid  
(c) semisolid (d) none
4. Name the device which used for the continuous culture.  
(a) Secchi disc  
(b) Chemostat  
(c) pH meter  
(d) Turbidometer
5. Tell the causative agent of green rot in egg.  
(a) Yeast  
(b) Pseudomonas  
(c) Lactobacillus  
(d) Spirulina

Page 2 Code No. : 30572 E

10. Choose the autoimmune disease from the following  
(a) thrombocytopenia  
(b) goiter  
(c) osteomalacia  
(d) rickets

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Differentiate prokaryotic and eukaryotic cell.  
Or  
(b) Discuss the scope of microbiology.
12. (a) Write a note on bacterial staining.  
Or  
(b) Explain the sterilization of glasswares.
13. (a) Explain the spoilage of milk.  
Or  
(b) Write the causative agent and symptoms of Typhoid.

Page 4 Code No. : 30572 E

[P.T.O.]

14. (a) Discuss the properties of Cytokines

Or

(b) Summarize the following :

(i) Adjuvants

(ii) Paratope

15. (a) Explain the following :

(i) Whole vaccines

(ii) DNA Vaccine.

Or

(b) Summarize the immunization and its types.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words

16. (a) Illustrate the Whittaker's classification of microbes.

Or

(b) Describe the structure of E coli bacteria.

Page 5 Code No. : 30572 E

17. (a) Explain the various phases of bacterial growth curve.

Or

(b) Discuss the role of biofermenters in mass culture.

18. (a) Write the causative agent and symptoms and treatment of rabies.

Or

(b) Write the causative agent, symptoms and control measures of AIDS.

19. (a) Discuss spleen as the secondary lymphoid organ.

Or

(b) Describe the structure and functions of Ig G.

20. (a) Write an essay on Major histocompatibility complex and its functions

Or

(b) Interpret the type III hypersensitivity.

Page 6 Code No. : 30572 E