

(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

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



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**

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 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

