

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Describe the structure and functions of any one of the primary lymphoid organ.

Or

- (b) Explain in detail about the structure and functions of spleen.

17. (a) Describe the biological properties of classes of Immunoglobulin.

Or

- (b) Explain the different types of antigen-antibody reaction.

18. (a) Describe the mechanism of cell mediated immunity.

Or

- (b) Write short notes on Macrophages and Stem cells.

19. (a) With sketch describe the structure of T₄-bacteriophage.

Or

- (b) Write an essay on Bacterial culture media.

20. (a) Explain the causative organism, pathogenesis, symptoms and control measures of Tuberculosis.

Or

- (b) Critically evaluate the methods adopted in food preservation.

Reg. No. :

Code No. : 11630 E Sub. Code : JMZO 62

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2019.

Sixth Semester

Zoology – Main

IMMUNOLOGY AND MICROBIOLOGY

(For those who joined in July 2016 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The German scientist awarded the Nobel Prize for his research in Tuberculosis was
(a) Jubs Bordet (b) Robert Koch
(c) Louis Pester (d) Metchini Koff
2. Burse of Fabricias, the primary lymphoid organ is found in
(a) Mammals (b) Fishes
(c) Birds (d) Amphibians
3. Immunoglobulin is a
(a) Polysaccharides sugar
(b) Glycoproten
(c) Lipid
(d) Protein



4. Immunoglobulin that cross placenta is
 - (a) Ig A (b) Ig M
 - (c) Ig D (d) Ig E
5. B-lymphocytes matured in
 - (a) Bone marrow (b) Spleen
 - (c) Liver (d) Pancrease
6. During secondary immune response the Immunoglobulin that produce in layer amount is
 - (a) Ig M (b) Ig E
 - (c) Ig D (d) Ig G
7. The father of Microbiology is
 - (a) Antony Von Leeuwenhock
 - (b) Louis Pester
 - (c) Edward Jenner
 - (d) Alexander Fleming
8. Broth is nothing but
 - (a) M.S. Medium
 - (b) Differential medium
 - (c) Liquid culture medium
 - (d) Enriched medium
9. Poliomyelitis effects the system of
 - (a) Respiratory (b) Reproductive
 - (c) Muscle (d) Nervous
10. The volume of Nitrogen present in the atmosphere is
 - (a) 0.03% (b) 19%
 - (c) 21% (d) 79%

Page 2 Code No. 11630 E

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) What are the scope of Immunology?
Or
(b) Differentiate innate and acquired immunity.
12. (a) Explain the structure and function of IgA.
Or
(b) Enlist and explain the salient features of antigen antibody reactions.
13. (a) Compare and Contrast the features of lymphocyte T and B
Or
(b) Write short note on Tumour immunology.
14. (a) What are the scope of microbiology?
Or
(b) Describe the bacterial growth with the help of bacterial growth curve.
15. (a) Briefly explain about the commercial production steps involved in penicillin production.
Or
(b) Analyse the role of soil microbes in nitrogen fixation.

Page 3 Code No. 11630 E

