D 90242-D (Pages : 3) Name.....

Reg. No.....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2020

(CUCBCSS—UG)

Microbiology

MBG 5B 08—IMMUNOLOGY

(2018 Admissions)

Time : Three Hours Maximum : 80 Marks

Draw diagrams wherever necessary.

Section A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. The human blood group antigens were discovered by :

   (Edward Jenner, Elie Metchnikoff, Louis Pasteur, Karl Landsteiner)

2. The fluid part separated from anticoagulant treated blood is called ————————.

3. Name the immunocompetent cell producing and secreting antibodies.

4. The type of immunity developed by vaccination is :

   (Artifically acquired active immunity, Naturally acquired active immunity, Artificially acquired passive immunity, Naturally acquired passive immunity)

5. The class of MHC presenting antigens to Tc cells is ————————.

6. The human immunoglobulin highly efficient in complement fixation is :

   (IgD, IgA, IgM, IgE)

7. The highest dilution of the sample giving visible antigen : antibody interaction is called ————————.

8. The autoimmune disease affecting neuromuscular junctions is :

   (Grave's disease, Myasthenia gravis, Pernicious anaemia, DiGeorge syndrome)

9. Name one oncogenic DNA virus.

10. The cells involved in type I hypersensitivity reaction is :

    (Neutrophils, Mast cells, Dendritic cells, NK cells)

11. The graft rejection due to the presence of preformed alloantibodies in host body is called ————————.

12. The selective agent in HAT media is :

    (Antibiotic, Hypoxanthine, Aminopterine, Thymidine)

(12 × 1 = 12 marks)

Section B

Answer at least **eight** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 24.

13. What is the contribution of Edward Jenner in Immunology ?
14. What are primary lymphoid organs ?
15. Discuss the physiological barriers of innate immunity.
16. What are adjuvants ?
17. What are allotypes ?
18. What is passive agglutination ?
19. Define Atopy.
20. What is arthus reaction ?
21. What is pernicious anaemia ?
22. Define Metastasis.

(8 × 3 = 24 marks)

Section C

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

23. Secondary lymphoid organs.
24. Structure of IgG.

25. Processing and presentation of exogenous antigens.

26. Immunodiffusion tests.

27. Delayed type hypersensitivity reactions.

28. Complement activation pathways.

29. Mechanisms of autoimmunity.

30. Immunotherapy to tumours.

(5 × 6 = 30 marks)

Section D

Answer at least **one** *question.*
Each question carries 14 *marks.*

Write essays on :

31. Write a note on cells involved in immune mechanisms.

32. Describe the structure and functions of human immunoglobulin isotypes.

33. Write a note on mechanism and types of immediate hypersensitivity reactions.

(1 × 14 = 14 marks)