



'সমানো মন্ত্র: সমিতি: সমানী'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 5th Semester Examination, 2022

DSE-P2-PHYSIOLOGY

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

GROUP-A

1. Answer any **five** questions from the following: 1×5 = 5
- (a) What is an antibiotic?
 - (b) Who invented Gram stain?
 - (c) State the role of interleukin-I.
 - (d) What is paratope?
 - (e) Which antibody can pass placenta?
 - (f) Name two bacteria with capsule.
 - (g) What is chemotaxis?
 - (h) What is diapedesis?
 - (i) What is adjuvant?
 - (j) An immunoglobulin is a:
 - (i) Carbohydrate (ii) Fatty acid (iii) Glycoprotein (iv) Protein

GROUP-B

Answer any **three** questions from the following

5×3 = 15

2. Explain the different phase of bacterial growth with graphical representation. 5
3. (a) What is prion? 1
(b) Briefly describe the lysogenic cycle of bacteriophage. 4
4. Write a note on Hypersensitivity. 5
5. (a) What do you understand by Natural Killer Cells? 2
(b) What do you mean by attenuated vaccine? 2
(c) Which antibody present in breast milk? 1

6. Write a note on chemokines. 5
7. Discuss the immunological test for pregnancy. 5

GROUP-C

Answer any two questions from the following

10×2 = 20

8. (a) Define pasteurization and sterilization. 4
(b) State the function of plasmids. 2
(c) What is disinfection? 2
(d) Name the various methods of disinfection. 2
9. (a) Describe the structure of an IgG antibody. 6
(b) Write any two differences between MHC class-I and MHC class-II molecules. 2
(c) Name any two cytokines produced by TH₁ cells. 1
(d) What do you understand by allergens? 1
10. Describe antigen-presenting cell and their role in immune system. 10
11. Write notes on:
(i) AIDS 7
(ii) Autoimmune disease. 3

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