



'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 5th Semester Examination, 2021

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) Define haptan.
 - (b) What is HLA complex?
 - (c) What is recombinant vaccine?
 - (d) Which part of the bacteria actually gets stained?
 - (e) What is autoimmune disease?
 - (f) What is phagocytosis?
 - (g) Name the vaccine that prevent tuberculosis.
 - (h) Which immunoglobulin can pass through placenta?
 - (i) What is epitope?
 - (j) What is conjugation?

GROUP-B

Answer any *three* questions from the following

5×3 = 15

2. Write a short note on passive immunity. 5
3. Briefly describe morphological classification of bacteria. 5
4. (a) What do you understand by natural killer cells? 2
(b) What do you mean by attenuated vaccine? 2
(c) What is agretope? 1
5. Give an account at pathogenic and nonpathogenic bacteria. 5
6. How does gram positive bacteria differ from gram negative bacteria? 5

GROUP-C

Answer any *two* questions from the following

10×2 = 20

7. (a) Discuss any four physical factors required for bacterial growth. 4
(b) Describe the LPS layer of gram negative bacterial structure. 3
(c) What do you mean by pasteurization? 2
(d) Why bacterial spores are heat resistant? 1
8. (a) What are 1° and 2° responses? 2
(b) What are adjuvant cells? 2
(c) What is complement system? Discuss its role in the body defence system. 1+5
9. Classify sterilization process. Describe the principle, mechanism and uses of autoclave. 2+8
- 10.(a) Define immunogen. State any four requirements of a molecule for being an immunogen. 1+4
(b) State the importance of variable region of an antibody molecule. 1
(c) Distinguish between affinity and avidity. 2
(d) Define toxoid. 2

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