

B.Sc. 5th Semester (Honours) Examination, 2020-21

PHYSIOLOGY

Course ID: 52517

Course Code: SH/PHY/504/DSE-2(T)

Course Title: Microbiology and Immunology

Time: 1 Hour 15 Minutes

Full Marks: 25

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any five questions of the following:

1×5=5

- (a) Differentiate between Gram positive and Gram negative bacteria.
- (b) What is interferon?
- (c) What is bactericidal agent? Give example.
- (d) State two functions of plasmid.
- (e) What are psychrophilic bacteria? Give examples.
- (f) What is haptan?
- (g) Define antibiotics.
- (h) Mention any two differences between affinity and avidity.

2. Answer any two questions from the following:

5×2=10

- (a) What is complement system? Briefly describe the classical pathway of complement system. 1+4=5
- (b) What is fermentation? Explain briefly about the lactic acid fermentation. 1+4=5
- (c) What do you mean by hypersensitivity reaction? Briefly discuss about different types of hypersensitivity reaction. 1+4=5
- (d) Write the immunological basis of pregnancy test. 5

3. Answer any one question from the following:

10×1=10

- (a) Define bacterial growth. Describe different phases of bacterial growth curve. Discuss the role of oxygen on bacterial growth. 2+6+2=10
- (b) What are antigen-antibody reactions? Briefly describe different types of antigen-antibody reaction. Add a note on inflammation. 2+6+2=10