

B.Sc. (Part-I) Semester-II Examination

2S : MICROBIOLOGY

(Microbiology, Biochemistry, Biostatistics and Computers)

Time : Three Hours]

[Maximum Marks : 80

N.B. :- (1) All questions are compulsory.

(2) Draw well labelled diagrams wherever necessary.

1. (A) Fill in the blanks :

- (i) Capsid is chemically made up of _____.
- (ii) Agent killing a germ is known as _____.
- (iii) Simple lipids are chemically made up of alcohol and _____.
- (iv) Purine bases of RNA are _____ and Guanine.

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(B) Choose the correct alternative :

- (i) Glycosidic bond is present in _____.
 - (a) Protein
 - (b) Lipid
 - (c) Carbohydrate
 - (d) Vitamin
- (ii) Interferons interfere with _____.
 - (a) Bacteria
 - (b) Fungi
 - (c) Protozoa
 - (d) Virus
- (iii) _____ is the chemical agent applied directly to body surfaces and wounds for destroying pathogens.
 - (a) Disinfectant
 - (b) Antiseptic
 - (c) Sanitizer
 - (d) Moisturizer
- (iv) Bacteriophages contain _____.
 - (a) DNA
 - (b) RNA
 - (c) Both DNA and RNA
 - (d) None of these

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(C) Answer in one sentence each :

- (i) Antibiotic
- (ii) Bacteriophage
- (iii) Sanitizer
- (iv) Software. 4

2. Explain :

- (a) Events of lytic cycle 4
- (b) Icosahedral viruses 4
- (c) T-4 phage. 4

OR

- (d) Lysogenic cycle 4
- (e) Virus cultivation in chick embryo 4
- (f) Helical symmetry. 4

3. Explain the role of following in microbial control :

- (a) Dry heat 4
- (b) Halogens 4
- (c) Penicillin. 4

OR

- (d) Heavy metals 4
- (e) Moist heat 4
- (f) Radiations. 4

4. Describe in detail biofertilizers. 12

OR

Describe in detail bioleaching. 12

5. Explain :
- (a) Monosaccharides 4
 - (b) Aromatic amino acids 4
 - (c) Pyrimidine bases. 4

OR

- (d) DNA structure 4
 - (e) Polysaccharides 4
 - (f) Tertiary structure of proteins. 4
6. Describe in detail graphical presentation of data. 12

OR

Describe in detail measures of central tendency. 12

7. Differentiate between :
- (a) Hardware and software 4
 - (b) Input and output devices 4
 - (c) RAM and ROM. 4

OR

Explain :

- (d) Primary memory 4
- (e) CPU 4
- (f) Microsoft PowerPoint. 4

