

4. Describe in detail applied aspects of microorganisms in antibiotics and vaccine production.

OR

Describe in detail bioleaching of ores. 12

5. Differentiate between :—

- (a) Homopolysaccharides and heteropolysaccharides. 4
- (b) Simple and conjugated lipids. 4
- (c) Saturated and unsaturated fatty acids. 4

OR

Explain :—

- (d) Monosaccharides. 4
- (e) Derived Lipids. 4
- (f) Aromatic amino acids. 4

6. Describe in detail different methods of presentation of statistical data.

AR – 525

Second Semester B. Sc. (Part – I) Examination

2S – MICROBIOLOGY

(Microbiology, Biochemistry, Biostatistics and Computers)

P. Pages : 5

Time : Three Hours]

[Max. Marks : 80

- Note :** (1) All questions are compulsory.
(2) Draw neat and labelled diagrams wherever necessary.

1. (A) Fill in the blanks.

- (i) _____ is the process of extraction of metals from its ores by living organisms.
- (ii) _____ is the condition where microorganisms are not killed but its growth is prevented.
- (iii) Simple lipids are made up of alcohol and _____.
- (iv) The long form of ROM is _____. 2

- (B) Choose the correct alternative.

- (i) Tetracycline is _____
- (a) Antiseptic (b) Disinfectant
- (c) Sanitizer (d) Antibiotics

AR – 525

4

AR – 525

P.T.O.

(ii) T-4 bacteriophage have ——— symmetry.

- (a) Helical (b) Binal
(c) Polyhedral (d) Icosahedral

(iii) ——— are the examples of purine bases.

- (a) Cytosine and Thymine (b) Adenine and cytosine
(c) Adenine and Guanine (d) Adenine and Thymine

(iv) The measures of central tendency are ———.

- (a) Mean (b) Mode and Mean
(c) Median, and Mean (d) Mean, Mode and Median

2

(C) Answer in **One** sentence each
Define.

- (i) Prophage
(ii) Osmosis
(iii) Nucleoside
(iv) Mode

4

2. Explain following :—

- (a) Structure of T-4 bacteriophage. 4
(b) Viral cultivation in embryonated egg. 4
(c) Detection of viral growth in cell culture. 4

OR

- (d) Differentiate between lytic and lysogenic cycle. 4
(e) Structure of icosahedral viruses. 4
(f) Lysogenic cycle. 4

3. Explain :—

- (a) Gaseous sterilization. 4
(b) Moist heat sterilization. 4
(c) Sterilization by radiations. 4

OR

- (d) Chemotherapeutic agents. 4
(e) Dry heat sterilization. 4
(f) Pasteurization. 4

OR

Describe in detail different measures of central tendency. 12

7. (a) Discuss in brief input devices of computer. 4

(b) Describe in brief primary memory of Computer. 4

(c) Describe in brief internet. 4

OR

(d) Discuss in brief output devices of computer. 4

(e) Differentiate between RAM and ROM. 4

(f) Discuss in brief secondary memory of computer. 4



