

Seat No:.....

90/A-25

No of printed pages: 2

SARDAR PATEL UNIVERSITY
B.Sc Examination Semester- III November 2019
Microbiology: US03CMIC02
Fundamental Microbiology II

Date : 26/11/2019

Day: Tuesday

Note: # All the question are compulsory.
Figure on the right indicate marks.

Time: 02 TO 05 PM
Total Marks: 70

Q.1 Select the right answer.

[10]

1. A group of similar species is called

[a] Genus [b] genes [c] family [d] kingdom

2. The basic taxonomic group[Taxon] is the.....

[a] species [b] genus [c] strain [d] complex

3 Microorganism require organic compound as carbon source are known as.....

[a] Lithotrophs [b] Heterotrophs [c] neutral [d] none of these

4. Blood agar is the example of amedium

[a] assay [b] differential [c] broth [d] None of these

5. Microbiology laboratories maintain a large collection of strain known as.....

[a] Stock culture collection [b] microprobe [c] micro mechanism [d] None of these

6is method for maintenance and preservation of pure culture.

[a] Freeze-drying [b] Persistence [c] Manipulation[d] none of these

7 is method for quantitative measurement of growth

[a] Direct microscopic count [b] turbidostate [c] synchronous [d] Non of these

8 The organism which are able to grow in presence of oxygen are called.....

[a] Aerobic. [b] Anaerobic [c] Osmophile [d] barophile

9. The word bacteriophage is given by.....

[a] Robert koch [b] Pasteur [c] Twort-d' Herelle [d] none of these

10 During transcription, bacteriophage tail fiber is coded by

[a] Early genes [b] Delayed early genes [c] late genes [d] None of these

Q.2 Give short answers to following question[Any ten]

[20]

[1] What is taxonomy ?

[2] Define [a] strain [b] classification

[3] Explain Haeckel's classification system.

[4] Discuss role of yeast extract in bacteriological media.

[5] Define [a] Phototrophs [b] Autotrophs

[6] Write on brief on obligate parasite.

[7] Give four example of method for preservation

[8] What is synchronous culture ?

[9] What is growth rate ?

[10] Draw labeled diagram of typical bacteriophage.

[11] Define prophage.

[12] What is the role of repressor protein in lysogeny.

- Q.3. [a] Write note on Whittaker's five kingdom concept. [05]
[b] Write note on Bergey's Manual of systematic Bacteriology [05]
OR
- Q.3. Explain the following [a] DNA homology experiment. [05]
[b] Nomenclature of bacteria. [05]
- Q.4. [a] Write notes on cultivation anaerobic bacteria [05]
[b] Write note on classification of bacteria on the basis of temperature requirement. [05]
OR
- Q.4. Discuss various nutritional types of bacteria in detail. [10]
- Q.5. Define Growth. Discuss in detail normal growth curve of bacteria [10]
OR
- Q.5. Define pure culture. Discuss in detail different methods of isolation of pure culture [10]
- Q.6 Define virulent phage. Explain in detail lytic cycle of phage T2 [10]
OR
- Q.6 Write notes on: [a] Morphology & structure of Bacteriophages [05]
[b] Cultivation of animal viruses. [05]