

VCD 25/11/19

Q.P. Code: USBT : 103

2 ½ Hours

Total Marks: 75

## Basic Life Science I

1. Attempt **all** questions.
2. **All questions** carry **equal** marks.
3. Draw **neat labelled diagrams** wherever necessary.
4. Use of **log tables** and **non-programmable calculator** is **allowed**.
5. For **Q 2, Q 3 and Q 4** attempt A and B **OR** C and D.

### Q 1 Do as directed (Any fifteen)

15

1. Liverfluke belongs to the phylum \_\_\_\_\_.
2. Give one example of fungi.
3. Give one significance of biodiversity.
4. Define: Organ grade of organisation.
5. Any one character of Gymnosperms
6. Define Biogenesis.
7. Name any one Algae.
8. Who proposed the Fluid Mosaic Model for structure of plasma membrane?
9. What is the thickness of peptidoglycan layer in Gram positive and Gram negative bacterial cell wall?
10. State True or False. "Eukaryotic cells lack well defined nuclear membrane bound nucleus in cytoplasm".
11. Bacterial flagella is made up of \_\_\_\_\_ protein.
12. Give any two examples of bacterial inclusion bodies.
13. Sedimentation rate of eukaryotic ribosomes is \_\_\_\_\_.
14. State True or False. "Nucleus is powerhouse of a cell."
15. Give one example of a virus with icosahedral symmetry.
16. \_\_\_\_\_ coined the term bacteriophage.
17. State the role of carborundum for the cultivation of plant viruses.
18. Bacilli are \_\_\_\_\_ shaped bacteria.
19. Name any one Eumycota.
20. Explain chemotropic mode of nutrition with respect to bacteria.

- Q. 2 A Explain general characters of Invertebrates. 08  
Q. 2 B Write economic importance of fungi. 07

OR

- Q. 2 C Explain genetic diversity and give its significance. 08  
Q. 2 D General characteristic of Eubacteria. 07

- Q. 3 A Compare and contrast prokaryotic and eukaryotic cell 08  
Q. 3 B Give an account of structure and function of flagella. 07

OR

- Q. 3 C Discuss briefly the phagocytosis process with a neat and labelled diagram. 08  
Q. 3 D Describe in detail structure and function of chloroplast. 07

- Q. 4 A Give an account of classification and types based on morphology of bacteria. 08

- Q. 4 B Elaborate on classification of animal viruses on the basis of their transcription process. 07

OR

- Q. 4 C Describe in detail any two methods for cultivation of animal viruses. 08  
Q. 4 D Diagrammatically explain viral multiplication cycle. 07

- Q. 5 Write Short notes on **any three** of the following 15

- Ecological diversity.
- General characters of phylum Platyhelminthes.
- Structure of plasma membrane.
- Bacterial endospore.
- Bacterial nutritional requirements.