

[2½ Hours]

[Total Marks: 75]

- N.B:**
1. Attempt all questions.
  2. Each question carries 15 marks.

**Q. 1) Do as directed** (attempt any fifteen)

15

1. Define Biogenesis
2. Give one significance of biodiversity
3. Give one example of pteridophyta
4. Name any two fruiting bodies formed in fungi during reproduction
5. Give one example of phylum Echinodermata
6. Explain the term Burst size
7. Define: Coliphages
8. What do you mean by Latent period?
9. Give an example of dsDNA virus.
10. State the function of the delayed early genes in phage replication.
11. Give the use of carborundum in virology?

**Fill in the blanks**

12. Liverfluke belongs to the Phylum \_\_\_\_\_.
13. \_\_\_\_\_ are the prokaryotes which appear to have diverged from true bacteria very early in evolution.
14. Prokaryotic cells have a specialized materials with them called as \_\_\_\_\_.
15. Organism which lack mitosis division and use binary fission method for cell division are known as \_\_\_\_\_.
16. The \_\_\_\_\_ complex may play a role in the heat resistance of endospore.
17. Light reaction of photosynthesis is takes place in the \_\_\_\_\_ of the chloroplast.
18. Volutin granules are reserve source for \_\_\_\_\_.
19. Ribosomes are NOT associated with \_\_\_\_\_.
20. \_\_\_\_\_ provide buoyancy to the cell.

**Q. 2)**

- A) Write a note on Millers Experiment  
B) Describe salient features of Angiosperms

8  
7

OR

- C) Describe general characteristics of Eubacteria  
D) Discuss the salient features of phylum protozoa

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**Q.3)**

- A) Describe the structure of flagellum  
B) Write the structure and functions of rER

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OR

- C) Differentiate between Cilia and Flagella  
D) Describe the structure of Golgi apparatus

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**Q.4)**

- A) Elaborate on classification & types of Bacteria based on morphology.  
B) Explain the mode of reproduction in bacteria.

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OR

- C) Discuss the morphology of Plant and Animal Viruses.  
D) Discuss adsorption and penetration events during phage infection.

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**Q.5) Write short notes (any three)**

15

- A) Economic importance of fungi  
B) Ecological diversity  
C) Microfilament  
D) Endocytosis  
E) Structure of phage

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