

## CHAPTER 2 BIOLOGICAL CLASSIFICATION

### Multiple choice questions

1. All eukaryotic unicellular organisms belong to
  - a. Monera
  - b. Plantae
  - c. Protista
  - d. Fungi
2. Contagium vivum fluidum was proposed by
  - a. D.J.Ivanowsky
  - b. M.W.Beijerinck
  - c. Stanley
  - d. Robert Hooke
3. Difference between virus and viroid is
  - a. Absence of protein coat in viroid but present in virus.
  - b. Presence of low molecular weight RNA in virus but absent in viroid.
  - c. Both (i) and (ii)
  - d. None of the above.
4. Mycobiont and phycobiont are found in
  - a. Mycorrhiza
  - b. Root
  - c. Lichens
  - d. Fern
5. Specialised cells, called heterocysts are present in some
  - a. Dinoflagellates
  - b. Cyanobacteria
  - c. Archaeobacteria
  - d. Chrysophytes
6. Three domain classification has
  - a. Six kingdoms
  - b. Four kingdoms
  - c. Five kingdoms
  - d. Three kingdoms
7. Which of the following is a characteristic feature of Chrysophytes?
  - a. They are all parasites on animals.
  - b. They have a protein-rich layer, called pellicle.
  - c. Their cell wall is indestructible as it is impregnated with silica.
  - d. They are called Euglenoids.
8. The group of fungi which is responsible for the disease in plants, called rusts and smuts belong to the class
  - a. Phycomycetes
  - b. Ascomycetes
  - c. Basidiomycetes
  - d. Deuteromycetes
9. The protist. Which releases toxins that kill fishes and other marine animals, is
  - a. Euglena
  - b. Paramoecium
  - c. Entamoeba

d. Gonyaulax

10. Identify the incorrect statement from the following

- a. Methanogens and Archaeobacteria which live in marshy area and produce methane gas.
- b. Nostoc is a filamentous blue-green alga that can fix atmospheric nitrogen.
- c. Chemosynthetic autotrophic bacteria can synthesize cellulose and starch from glucose
- d. Mycoplasma lack a cell wall and survive without oxygen.

Answer the following: (2 marks )

- 1. Euglena is both an autotroph and a heterotroph. Justify.
- 2. Give any four important characteristics of mycoplasma.
- 3. Write the characteristic features of Euglenoids.
- 4. Differentiate between (i) Ascomycetes and Basidiomycetes (ii) Chrysophytes and Dinoflagellates
- 5. A virus is considered as a living organism and an obligate parasite when inside a host cell. But virus is not classified with bacteria or Fungi. What are the characters of virus that are similar to non-living objects?
- 6. Why are Deuteromycetes commonly known as imperfect fungi? Mention two characteristics of mycelium of such fungi.
- 7. Find out what do the terms “algal bloom” & “red tides” signify?

**Answer the following: (3 marks )**

- 1. Describe the three common steps in the sexual reproduction of fungi.
- 2. Mention 6 characteristic features of dinoflagellates.
- 3. In which group are the following found: Conidia, Zygosporangium and Ascospore.
- 4. Write a brief note on actinomycetes.
- 5. What is diatomaceous earth? Mention any two economic uses of it.
- 6. What are chemoautotrophic bacteria? How they obtain energy?

**Answer the following: (5 marks )**

- 1. Make a comparative account of the five kingdoms on the following characters (i) Cell wall (ii) Body organization.
- 2. Explain the structure of bacteriophage with the help of a labelled diagram..