

CHAPTER 4

Biological Classification

Introduction

- Five kingdom system of classification suggested by R.H. Whittaker is not based on (2014)
 - Complexity of body organisation
 - Presence or absence of a well defined nucleus
 - Mode of reproduction
 - Mode of nutrition

Kingdom Monera

- Which of the following is a correct statement? (2022)
 - Mycoplasma have DNA, Ribosome and cell wall
 - Cyanobacteria are a group of autotrophic organisms classified under Kingdom Monera
 - Bacteria are exclusively heterotrophic organisms
 - Slime moulds are saprophytic organisms classified under Kingdom Monera.
- Which of the following is incorrect about Cyanobacteria? (2020-Covid)
 - They lack heterocysts
 - They often form blooms in polluted water bodies
 - They have chlorophyll 'a' similar to green plants
 - They are photoautotrophs
- Oxygen is not produced during photosynthesis by (2018)
 - Nostoc*
 - Green sulphur bacteria
 - Cycas*
 - Chara*
- Which of the following are found in extreme saline conditions? (2017-Delhi)
 - Archaeobacteria
 - Eubacteria
 - Cyanobacteria
 - Mycobacteria
- Which among the following are the smallest living cells, known without a definite cell wall, pathogenic to plants as well as animals and can survive without oxygen? (2017-Delhi)
 - Bacillus*
 - Pseudomonas*
 - Mycoplasma
 - Nostoc*
- Methanogens belong to: (2016 - II)
 - Dinoflagellates
 - Slime moulds
 - Eubacteria
 - Archaeobacteria
- Which one of the following statements is wrong? (2016 - I)
 - Cyanobacteria* are also called blue-green algae
 - Golden algae are also called desmids
 - Eubacteria are also called false bacteria
 - Phycomycetes are also called algal fungi
- The primitive prokaryotes responsible for the production of biogas from the dung of ruminant animals, include the: (2016 - I)
 - Halophiles
 - Thermoacidophiles
 - Methanogens
 - Eubacteria
- True nucleus is absent in: (2015)
 - Vaucheria*
 - Volvox*
 - Anabaena*
 - Mucor*
- The gut of cow and buffalo possess: (2015)
 - Methanogens
 - Cyanobacteria*
 - Fucus*
 - Chlorella*
- Cell wall is absent in: (2015 Re)
 - Funaria*
 - Mycoplasma
 - Nostoc*
 - Aspergillus*
- Archaeobacteria differ from Eubacteria in: (2014)
 - Mode of reproduction
 - Cell membrane structure
 - Mode of nutrition
 - Cell shape

Kingdom Protista

- Select the wrong statement (2018)
 - Cell wall is present in members of Fungi and Plantae
 - Mushrooms belong to Basidiomycetes
 - Pseudopodia are locomotory and feeding structures in Sporozoans
 - Mitochondria are the powerhouse of the cell in all kingdoms except Monera
- Which of the following organisms are known as chief producers in the oceans? (2018)
 - Dinoflagellates
 - Diatoms
 - Cyanobacteria
 - Euglenoids

16. Ciliates differ from all other protozoans in (2018)
- Using flagella for locomotion
 - Having a contractile vacuole for removing excess water
 - Using pseudopodia for capturing prey
 - Having two types of nuclei
17. Select the wrong statement: (2016 - II)
- Diatoms are chief producers in the oceans
 - Diatoms are microscopic and float passively in water
 - The walls of diatoms are easily destructible
 - 'Diatomaceous earth' is formed by the cell wall of diatoms.
18. Chrysophytes, Euglenoids, Dinoflagellates and Slime moulds are included in the kingdom: (2016 - I)
- Animalia
 - Monera
 - Protista
 - Fungi
19. In which group of organisms the cell walls form two thin overlapping shells which fit together? (2015 Re)
- Euglenoids
 - Dinoflagellates
 - Slime moulds
 - Chrysophytes

Kingdom Fungi

20. Which of the following statements is correct? (2021)
- Fusion of protoplasts between two motile or non-motile gametes is called plasmogamy.
 - Organisms that depend on living plants are called saprophytes.
 - Some of the organisms can fix atmospheric nitrogen in specialized cells called sheath cells.
 - Fusion of two cells is called Karyogamy.
21. Which of the following statements is **incorrect**? [OS] (2019)
- Morels and truffles are edible delicacies.
 - Claviceps* is a source of many alkaloids and LSD.
 - Conidia are produced exogenously and ascospores endogenously.
 - Yeasts have filamentous bodies with long thread-like hyphae.
22. After karyogamy followed by meiosis, spores are produced exogenously in (2018)
- Neurospora*
 - Alternaria*
 - Agaricus*
 - Saccharomyces*
23. Which one of the following is wrong for fungi? (2016 - II)
- They are heterotrophic
 - They are both unicellular and multicellular
 - They are eukaryotic
 - All fungi possess a purely cellulosic cell wall
24. One of the major components of cell wall of most fungi is: (2016 - I)
- Chitin
 - Peptidoglycan
 - Cellulose
 - Hemicellulose

25. Which one of the following matches is correct? (2015)

a.	<i>Mucor</i>	Reproduction by Conjugation	Ascomycetes
b.	<i>Agaricus</i>	Parasitic fungus	Basidiomycetes
c.	<i>Phytophthora</i>	Aseptate mycelium	Basidiomycetes
d.	<i>Alternaria</i>	Sexual reproduction absent	Deuteromycetes

26. Choose the wrong statements: (2015 Re)
- Neurospora* is used in the study of biochemical genetics
 - Morels and truffles are poisonous mushrooms
 - Yeast is unicellular and useful in fermentation
 - Penicillium* is multicellular and produces antibiotics
27. The imperfect fungi which are decomposer of litter and help in mineral cycling belong to: (2015 Re)
- Basidiomycetes
 - Phycomycetes
 - Ascomycetes
 - Deuteromycetes
28. Which one of the following fungi contains hallucinogens? [OS] (2014)
- Ustilago sp.*
 - Morchella esculenta*
 - Amanita muscaria*
 - Neurospora sp.*

Kingdom Animalia

29. Pick up the wrong statement: (2015 Re)
- Protista has photosynthetic and heterotrophic modes of nutrition
 - Some fungi are edible
 - Nuclear membrane is present in Monera
 - Cell wall is absent in Animalia
30. Which one of the following living organisms completely lacks a cell wall? (2014)
- Blue-green algae
 - Cyanobacteria
 - Sea-fan (*Gorgonia*)
 - Saccharomyces*

Viruses, Viroids, Prions & Lichens

31. Which of the following is correct about viroids? (2020)
- They have free RNA without protein coat.
 - They have DNA with protein coat.
 - They have free DNA without protein coat.
 - They have RNA with protein coat.
32. Which of the following statement is incorrect? (2019)
- Viroids lack a protein coat.
 - Viruses are obligate parasites.
 - Infective constituent in viruses is the protein coat.
 - Prions consist of abnormally folded proteins.
33. Viroids differ from viruses in having: (2017-Delhi)
- DNA molecules with protein coat
 - DNA molecules without protein coat
 - RNA molecules with protein coat
 - RNA molecules without protein coat

(2014)

34. Which of the following statements is wrong for viroids? (2016 - I)
- They lack a protein coat
 - They are smaller than viruses
 - They causes infections
 - Their RNA is of high molecular weight
35. Which of the following are most suitable indicators of SO₂ pollution in the environment? [OS] (2015 Re)
- Conifers
 - Algae
 - Fungi
 - Lichens
36. Select the wrong statements: (2015 Re)
- W.M. Stanley showed that viruses could be crystallised
 - The term '*Contagium vivum fluidum*' was coined by M.W. Beijerinck
 - Mosaic disease in tobacco and AIDS in human being are caused by viruses
 - The viroids were discovered by D.J. Ivanowsky
37. Viruses have: (2014)
- Both DNA and RNA
 - DNA enclosed in a protein coat
 - Prokaryotic nucleus
 - Single chromosome
38. A location with luxuriant growth of lichens on the trees indicates that the: (2014)
- Location is not polluted
 - Trees are very healthy
 - Trees are heavily infested
 - Location is highly polluted
39. Which of the following shows coiled RNA strand and capsomeres? (2014)
- Retrovirus
 - Polio virus
 - Tobacco mosaic virus
 - Measles virus

Answer Key

[illegible]