



RAVI MATHS TUITION CENTRE , WHATSAPP - 8056206308

Time : 60 Mins

2 BIOLOGICAL CLASSIFICATION 1

Marks : 240

1. Which one of the following statements is wrong?
 - a) Phycomycetes are also called algai fungi
 - b) Cyanobacteria are also called blue-green algae
 - c) Golden algae are also called desmids
 - d) Eubacteria are also called false bacteria
2. Which of the following statements is incorrect?
 - a) Claviceps is a source of many alkaloids and LSD.
 - b) Conidia are produced exogenously and ascospores endogenously
 - c) Yeasts have filamentous bodies with long thread-like hyphae.
 - d) Morels and truffles are edible delicacies.
3. Red tides in warm coastal water develop due to the abundance of
 - a) dinoflagellates
 - b) euglenoids
 - c) diatoms and desmids
 - d) slime moulds.
4. **Assertion:** Two kingdom classification was insufficient
Reason: Majority of organisms did not fall into either of the categories in two kingdom classification.
 - a) If both assertion and reason are true and reason is the correct explanation of assertion.
 - b) If both assertion and reason are true but reason is not the correct explanation of assertion.
 - c) If assertion is true but reason is false.
 - d) If both assertion and reason are false.
5. Refer to the given figure and select the incorrect option regarding it.



- a) It belongs to Class Basidiomycetes.

b) It is a non-edible, poisonous mushroom.

c) It possesses an umbrellalike basidiocarp.

d) The basidiospores in it, are exogenously produced on the basidium.
6. Which of the following statements regarding Kingdom Animalia is incorrect?
 - a) It includes heterotrophic, unicellular eukaryotic organisms.
 - b) The members of this kingdom lack cell walls.
 - c) The mode of nutrition is holozoic.
 - d) The sexual reproduction in its members is by copulation of male and female.
7. Some members are saprophytes or parasites whereas a large number of members are decomposers of litter and help in nutrient cycling in case of
 - a) Phycomycetes
 - b) Deuteromycetes
 - c) Ascomycetes
 - d) Basidiomycetes
8. Thermococcus, Methanococcus and Methanobacterium exemplify.

- a) Bacteria that contain a cytoskeleton and ribosomes
 b)
 Archaeabacteria that lack any histones resembling those found in eukaryotes but whose DNA is negatively supercoiled.
 c) Archaeabacteria that contain protein homologous to eukaryotic core histones.
 d)
 Bacteria whose DNA is relaxed or positively supercoiled but which have a cytoskeleton as well as mitochondria.

9. Which one of the following set of items in the option (a-d) are correctly categorized with one exception in it?

a)

| Items | Category | Exception |
|---------------|-------------|-----------|
| UAA, UAG, UGA | Stop codons | UAG |

b)

| Items | Category | Exception |
|-------------------------|-----------------------|-----------|
| Kangaroo, Koala, Wombat | Australian marsupials | Wombat |

c)

| Items | Category | Exception |
|----------------------------------|-----------|-----------|
| Plasmodium, Cuscuta, Trypanosoma | Protozoan | Cuscuta |

d)

| Items | Category | Exception |
|--------------------------------|-------------------|------------|
| Typhoid, pneumonia, diphtheria | Bacteria diseases | diphtheria |

10. Lichens are a well known combination of an alga and a fungus where fungus has _____.

- a) A saprophytic relationship with the alga. b) An epiphytic relationship with the alga.
 c) A parasitic relationship with the alga. d) A symbiotic relationship with the alga.

11. In Penicillium, the asexual reproduction takes place by

- a) ascospores b) aplanospores c) sporangiospores d) conidiospores.

12. Influenza virus has _____.

- a) DNA b) RNA c) Both (a) and (b) d) Only proteins and no nucleic acids

13. Which of the following options incorrectly distinguishes the Kingdoms Monera and Protista?

a)

| Monera | Protista |
|----------------------------------|-----------------------------------|
| Includes unicellular prokaryotes | Includes multicellular eukaryotes |

b)

| Monera | Protista |
|---|--|
| Membrane bound cell organelles are absent | Membrane bound cell organelles are present |

c)

| Monera | Protista |
|---|---|
| Cell wall when present, made up of peptidoglycans | Cell wall, if present, contains cellulose |

d)

| Monera | Protista |
|---|---|
| Flagella, when present, comprise of protein flagellin | Flagella and cilia when present, made up of protein tubulin |

14. Read the given statements that describe certain infectious particle.

- (i) It was discovered by T.O. Diener and was found to be smaller than viruses.
 (ii) It causes potato spindle tuber disease.
 (iii) It is a free RNA particle which lacks the protein coat.
 (iv) It has low molecular weight RNA as genetic material.

Which of the following is referred to here?

- a) Virus b) Viroid c) Virion d) Bacteriophage

15. An association between roots of higher plants and fungi is called

- a) lichen b) fern c) mycorrhiza d) BGA

16. A slide under microscope shows following features:

- (i) Unicellularity
- (ii) Well defined nucleus
- (iii) Biflagellate-one flagellum lying longitudinally and the other transversely

What would you identify it as?

- a) Protozoan
- b) Bacterium
- c) Euglenoid
- d) Dinoflagellate

17. Bacteria are grouped under four categories according to their shape. Study the given figures and select the correct option regarding this.



a)

| A | B | C | D |
|-------|---------|----------|--------|
| Cocci | Bacilli | Spirilla | Vibrio |

b)

| A | B | C | D |
|----------|---------|--------|-------|
| Spirilla | Bacilli | Vibrio | Cocci |

c)

| A | B | C | D |
|---------|----------|--------|-------|
| Bacilli | Spirilla | Vibrio | Cocci |

d)

| A | B | C | D |
|---------|----------|-------|--------|
| Bacilli | Spirilla | Cocci | Vibrio |

18. The most abundant prokaryotes helpful to humans in making curd from milk and in production of antibiotics are the ones categorised as:

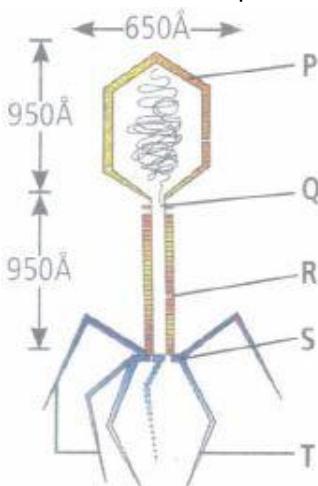
- a) Cyanobacteria
- b) Archaeabacteria
- c) Chemosynthetic autotrophs
- d) Heterotrophic bacteria

19. **Assertion:** Sporozoans may have silica shells on their surface.

Reason: Shells of sporozoans help in protection from acidic environment of the host.

- a) If both assertion and reason are true and reason is the correct explanation of assertion.
- b) If both assertion and reason are true but reason is not the correct explanation of assertion.
- c) If assertion is true but reason is false.
- d) If both assertion and reason are false.

20. Given is an electron microscopic structure of a T_2 bacteriophage. Identify the labelled parts P, Q, R, S and T and select the correct option.



a)

| P | Q | R | S | T |
|------|--------|--------|-------------|------------|
| Head | Collar | Sheath | Basal plate | Tail fibre |

b)

| P | Q | R | S | T |
|------|--------|--------|------|------------|
| Head | Collar | Capsid | Tail | Tail fibre |

c)

| P | Q | R | S | T |
|--------|--------|-------------|------|------------|
| Capsid | Sheath | Basal plate | Tail | Tail fibre |

d)

| P | Q | R | S | T |
|------|--------|--------|-----------|------------|
| Head | Collar | Sheath | Capsomere | Tail fibre |

21. Viruses are non-cellular organisms but replicate themselves once they infect the host cell. To which of the following kingdom do viruses belong to?
 a) Monera b) Protista c) Fungi d) None of these
22. Cyanobacteria are classified under which of the following kingdoms?
 a) Monera b) Protista c) Algae d) Plantae
23. Single-celled eukaryotes are included in
 a) Monera b) Protista c) Fungi d) Archaea
24. Which of the following organisms possesses characteristics of both a plant and an animal?
 a) Bacteria b) Mycoplasma c) Euglena d) Paramecium
25. How many organisms in the list given below are autotrophs?
 Lactobacillus, Nostoc, Chara, Nitrosomonas, Nitrobacter, Streptomyces, Sacharomyces, Trypanosoma, Porphyrs, Wolfia
 a) Four b) Five c) Six d) Three
26. Which statement is correct for bacterial transduction?
 a) Transfer of some genes from one bacteria to another bacteria through virus.
 b) Transfer of genes from one bacteria to another bacteria by conjugation.
 c) Bacteria obtains its DNA directly. d) Bacteria obtains its DNA from other external source.
27. Which of the following statements is wrong for viroids?
 a) They lack a protein coat. b) They are smaller than viruses. c) They cause infections.
 d) Their RNA is of high molecular weight
28. Match column I with column II and select the correct option from the given codes.
- | Column I | Column II |
|------------------------------|----------------------|
| A. Chief producers in oceans | (i) Euglenoids |
| B. Red tides | (ii) Diatoms |
| C. Mixotrophic nutrition | (iii) Slime moulds |
| D. Plasmodium | (iv) Dinoflagellates |
- a) A-(ii), B-(iv), C-(i), D-(iii) b) A-(ii), B-(iv), C-(iii), D-(i) c) A-(ii), 8-(iii), C-(i), D-(iv)
 d) A-(i), 8-(iv), C-(iii), D-(ii)
29. Archaeabacteria differs from eubacteria in :
 a) Cell Membrane structure b) Mode of nutrition c) Cell shape d) Mode of reproduction
30. African sleeping sickness is due to _____.
 a) Plasmodium vivax transmitted by tse-tse fly b) Trypanosoma lewisi transmitted by bed bug
 c) Trypanosoma gambiense transmitted by Glossina palpalis d) Entamoeba gingivalis spread by house fly
31. Which one of the following is an incorrect statement regarding mycoplasma?
 a) They lack a cell wall b) They are the smallest living cells. c) They cannot survive without oxygen.
 d) They are pathogenic in plants and animals.
32. Select the correct combination of the statements (a - d) regarding the characteristics of certain organisms.
 (1) Methanogens are Archaeabacteria which produce methane in marshy areas
 (2) Nostoc is filamentous blue-green alga which fixes atmospheric nitrogen.
 (3) Chemosynthetic autotrophic bacteria synthesize
 (4) Mycoplasma lack a cell wall and can survive without oxygen.
 a) (3) b) (1), (2), (3) c) (2), (3), (4) d) (1), (2), (4)
33. Decomposers are organisms that _____.
 a) Elaborate chemical substances, causing death of tissues
 b) Operate in living body and simplifying organic substances of cells step by step

- c) Attack and kill plants as well as animals
 d) Operate in relay terms, simplifying step by step the organic constituents of dead body
34. Escherichia coli is used extensively in biological research as it is _____.
 a) Easily cultured b) Easily available c) Easy to handle d) Easily multiplied in host
35. In Whittaker's five kingdom system of classification, eukaryotes are distributed among
 a) two kingdoms b) three kingdoms c) four kingdoms d) all the five kingdoms
36. Which one of the following statements about viruses is correct?
 a) Viruses possess their own metabolic system b) Viruses contain either DNA or RNA
 c) Viruses are facultative parasites d) Viruses are readily killed by antibiotics
37. Chrysophytes are
 a) planktons b) nektons c) benthic organisms d) rooted submerged.
38. Genetic information in Paramecium is contained in _____.
 a) Micronucleus b) Macronucleus c) Both (a) and (b) d) Mitochondria
39. Malignant tertian malarial is caused by _____.
 a) Plasmodium falciparum b) P.vivax c) P. ovale d) P. malariae
40. Virus envelope is known as :
 a) Capsid b) Virion c) Nucleoprotein d) Core
41. Diatomaceous earth is used for all except
 a) polishing b) filtration of oils and syrups c) making sound and fire proof rooms d) biogas production.
42. Term used for the closed ascocarp is
 a) apothecium b) amphithecum c) endothecium d) cleistothecium.
43. Choose the wrong statements
 a) Neurospora is used in the study of biochemical genetics.
 b) Morels and truffles are poisonous mushrooms. c) Yeast is unicellular and useful in fermentation.
 d) Penicillium is multicellular and produces antibiotics.
44. Which of the following structures is not found in a prokaryotic cell?
 a) Ribosome b) Mesosome c) Plasma membrane d) Nuclear envelope
45. Malaria fever coincides with liberation of _____.
 a) Cryptomerozoites b) Metacryptomerozoites c) Merozoites d) Trophozoites
46. Which of the following is not a viral disease of plants?
 a) Red rot of sugarcane b) Tobacco mosaic disease c) Leaf curl of tomato d) Tristeza disease of citrus
47. _____ is a unicellular fungus
 a) Yeast b) Rust c) Smut d) Bread mould
48. Which one of the following microorganisms is used for production of citric acid in industries?
 a) Penicillium citrinum b) Aspergillus niger c) Rhizopus nigricans d) Lactobacillus bulgaricus
49. Which of the following statements is not correct regarding the Class Ascomycetes?
 a) Conidia are the asexual spores produced endogenously on conidiophores.
 b) Ascospores are the sexual spores produced endogenously in asci.
 c) Aspergillus, Neurospora and Claviceps are Ascomycetes fungi.
 d) Mycelium is generally branched and septate in Ascomycetes.
50. Match column I with column II and select the correct option from the given codes.

| Column I | Column II |
|-----------------|---------------------------|
| A. Plant virus | (i) Kuru disease |
| B. Animal virus | (ii) Potato spindle tuber |

| | |
|------------|---------------------|
| C. Viroids | (iii) Polio |
| D. Prions | (iv) Tobacco mosaic |

- a) A-(iv), B-(iii), C-(ii), D-(i) b) A-(iv), B-(iii), C-(ii), D-(i) c) A-(iii), B-(iv), C-(i), D-(ii)
 d) A-(ii), B-(iii), C-(iv), D-(i)
51. Plasmodium, the malarial parasite, belongs to class _____ .
 a) Sarcodina b) Ciliata c) Sporozoa d) Dinophyceae
52. Which of the following are most suitable indicators of SO_2 pollution in the environment?
 a) Conifers b) Algae c) Fungi d) Lichens
53. Reserve food material in photosynthetic protistan having silicified cell wall is
 a) Paramylum b) Laminarin c) Chrysolaminarin d) Starch
54. **Assertion:** Euglena is called as plant animal.
Reason: Pellicle of Euglena is made up of cellulose and not protein.
 a) If both assertion and reason are true and reason is the correct explanation of assertion.
 b) If both assertion and reason are true but reason is not the correct explanation of assertion.
 c) If assertion is true but reason is false. d) If both assertion and reason are false.
55. Which of the following components provides sticky character to the bacterial cell?
 a) Nuclear membrane b) Plasma membrane c) Glycocalyx d) Cell wall
56. In five kingdom system, the main basis of classification is _____.
 a) Structure of nucleus b) Mode of nutrition c) Structure of cell wall d) Asexual reproduction
57. Read the following statements and select the option arbovirus. which identifies the incorrect ones.
 (i) Potato spindle tuber disease and **Chrysanthemum** stunt disease are caused by viroids.
 (ii) T_4 bacteriophage exhibits lytic cycle.
 (iii) Retroviruses have two copies of ssRNA.
 (iv) Interferons which prevent viral multiplication are glycolipid particles.
 a) (ii) and (iii) b) (i) and (iv) c) (iii) only d) (iv) only
58. What is true about Trypanosoma?
 a) Polymorphic b) Monogenetic c) Facultative parasite d) Non-pathogenic
59. In an experiment common Tobacco Mosaic Virus (TMV) and its mutant strain 'HR' were used to prepare hybrid particles with 'HR' nucleic acid and 'TMV' protein coat. These hybrids were mixed with antibodies against 'HR' strains. If this mixture is applied to plant materials, it will result in
 a) loss of infectivity of virus particles due to inactivation of nucleic acids
 b) loss of infectivity due to inactivation of protein coat c) intact infectivity because only coat is neutralised
 d) unchanged infectivity because neither nucleic acid nor protein coat is neutralised.
60. Which one is an incorrectly matched pair?
 a) Phycomycetes - Mucor, *Albugo* b) Ascomycetes - *Penicillium*, *Aspergillus*
 c) Basidiomycetes - *Puccinia*, *Agaricus* d) Deuteromycetes - *Ustilago*, *Colletotrichum*