

Question Bank

Class :- F.Y. B.Sc.

Sem :- I

Subject:- Botany

Paper:- I Microbial Diversity

1. Which of the following has a complex symmetry?

- a) **T4 phage**
- b) Adenovirus
- c) Influenza virus
- d) All of the above

2. The viral envelope is made up of _____.

- a) Proteins
- b) Glycoproteins
- c) Lipids and Proteins
- d) **All of the above**

3. Which of the following is a helical virus?

- (a) **TMV**
- (b) T4 phage
- (c) Poxvirus
- (d) Herpes virus

4. Which of the following statements are true about the viruses?

- a) Free-living
- b) **Obligate parasites**
- c) Both (a) and (b)
- d) None of the above

5. A fully formed infectious viral particle is called _____.

- a) **Virion**

- b) Viriod
- c) Capsid
- d) Virusoid

6. The genetic constituent of viruses is _____.

- a) RNA
- b) DNA
- c) ss DNA
- d) DNA or RNA**

7. Which of the following statements are true about the tobacco mosaic virus (TMV)?

- (a) RNA virus**
- (b) DNA virus
- (c) Bacteriophage
- (d) ss DNA or ds DNA

18. The shape of the TMV is _____.

- a) Rod-shaped**
- b) Oval shaped
- c) Cuboidal shaped
- d) Spherical shaped

9. Viruses that attack bacteria are called _____.

- a) Virophage
- b) Lysophage
- c) Bacteriophage**
- d) None of the above

10. Yellow vein mosaic is disease in

- a. Lady's finger**
- b. Tamato

- c. Chilly
- d. Cotton

11. Who discovered Rickettsia?

a. Charles Nicole

- b. Meyer
- c. Stanley
- d. None of the above

12. Rickettsia were first described in the year

a. 1919

- b. 1909
- c. 1929.
- d. 1934

13. Blue-green algae belong to which group?

a. Protista

b. Prokaryotes

- c. Fungi
- d. Bryophytes

14. Prions and viroid's are

- a. unicellular
- b. multicellular
- c. acellular**
- d. bicellular

15. Prokaryotic animals lie in kingdom

a. Monera

- b. Protista
- c. Fungi

d. Plantae

16. The viruses are considered as non-living organisms because of

a. crystalline nature

b. presence of chitin

c. absence of chloroplasts

d. absence of polysaccharides

17. Who gave The five-kingdom in 1969..

a. Carolus Linnaeus.

b. Ernst Mayer.

c. R.H. Whittaker.

d. None.

18. A virus is made up of _____.

a) Protein coat and nucleic acid

b) Protein coat and mitochondria

c) Nucleic acid and cell membrane

d) Nucleic acid, cell wall and cell membrane

19. The protein coat of viruses that enclose the genetic material is called _____

a) Virion

b) Capsid

c) Peplomers

(d) Capsomers

20. Which of the following statements are true about a virion?

(a) Lytic phage

(b) Lysogenic phage

(c) The viral capsid

d) An infectious and fully formed viral particle

21. A cluster of polar flagella is called

a. lophotrichous

b. amphitrichous

c. monotrichous

d. petritrichous

22. The cocci which mostly occur in single or pairs are

a. streptococci

b. diplococci

c. tetrads

d. none of these

23. The bacteria discovered by.....

a. Louis Pasteur

b. Odum

c. A.V. Leeuwenhoek

d. Linnaeus

24. Which of the following is true about cell wall of gram-positive bacteria?

a. It consists of multiple layers

b. It is thicker than that associated with gram-negative bacteria

c. It contains teichoic acids

d. All of these

25. The structure responsible for motility of bacteria is

a. pili

b. flagella

c. sheath

d. capsules

26. Cyanobacteria have..

a. A gram-positive cell wall

b. A gram-negative cell wall

c. Neither (a) nor (b)

d. No cell wall

27. Stain used in Gram Staining is ...

a. Crystal violet

b. Cotton blue

c. Light green

d. Anilline blue

28. A form canker in citrus is caused by?

a) polytrichum

b) Xanthomonas citri.

c) X. axonopodis pv. aurantifolia.

d) X. axonopodis pv. citrumelo.

29. The disease called “Black arm” affects

A) Wheat

B) Sugarcane

C) Cotton

D) Rice

30. Causal organism of Black arm of Cotton is ...

a. Xanthomonas malvacearum

b. Psudomonas

c. Xanthomonas citri

d. None

31. The bacteria are called aerobic when they possess ..

- a. Nitrogen
- b. Carbon dioxide
- c. Oxygen**
- d. Halogen

32. Which one of the following is a colonial alga?

- a) Ulothrix
- b) Spirogyra
- c) Volvox**
- d) Chlorella

33. Mannitol is a reserved food found in

- a) Gracillaria
- b) Porphyra
- c) Chara
- d) Fucus**

34. Laminarin is an energy storage material characteristic of

- a. chlorophyta
- b. chrysophyta
- c. phaeophyta**
- d. pyrrophyta

35. Starch is an energy storage material characteristic of

- a. chlorophyta
- b. chrysophyta
- c. phaeophyta
- d. rhodophyta**

36. The _____ is the vegetative body of algae.

- a. mycelium
- b. plasmodium
- c. pseudoplasmodium

d. thallus

37. Agar-Agar is derived from

a. fungi

b. algae

- c. bryophytes
- d. gymnosperms

38. Asexual reproduction in Spirogyra

- a. takes place by zoospore formation
- b. has not been recorded
- c. takes place by hypnospore formation

d. takes place by aplanospore formation

39. Pyrenoids are found in which of the following organs of Spirogyra:

- a. nucleus
- b. cytoplasm
- c. chloroplast**
- d. cell wall

40. The blue-green algae belong to

- a. eukaryota
- b. prokaryota**
- c. myxomycetes
- d. none of these

41. Fucoxanthin is found in

- a. **brown algae**
- b. green algae
- c. red algae
- d. blue-green algae

42. The algae which help in the fixation of nitrogen belongs to class

- a. rhodophyceae
- b. **cyanophyceae**
- c. chlorophyceae
- d. phaeophyceae

43. The food reserve in blue green algae is

- a. **cyanophycean starch**
- b. globulin
- c. fats and oils
- d. cellulose

44. Which of the following algae produces Palmella stage ?

- a. chlamydomonas
- b. cystopus
- c. **oedogonium**
- d. scytonema

45. Sexual fusion in Spirogyra is

- a. isogamous
- b. oogamous
- c. morphologically anisogamous
- d. **physiologically anisogamous**

46. Which of the following produces non-motile gametes ?

a. cladophora

b. ulothrix

c. spirogyra

d. anabaena

47. Plants which are not differentiated roots, stems and leaves are grouped under

a. thallophytes

b. gymnosperms

c. pteridophytes

d. spermatophyte

48. Heterocysts are found in

a. nostoc

b. cystopus

c. ulothrix

d. aspergillus

49. Red colour of the red algae is due to

a. γ -phycoyanin

b. xanthophyll

c. carotene

d. γ -phycoerythrin

50. Pond Silk' is the common name for

a. spirogyra

b. chlamydomonas

c. anabaena

d. nostoc

51. Mycelium of Rhizopus is

(a) Aseptate and multinucleate

(b) Septate and multinucleate

(c) Aseptate and uninucleate

(d) Septate and coenocytes

52. Asexual reproduction in Rhizopus is by the formation of_____.

(a) Chlamydo spores

(b) Aplanospores

(c) Sporangiospores

(d) All of the above

53. Fungi are organism.

a. Autotrophic

b. Chlorophyllous

c. Heterotrophic

d. Vascular

54. The central part of gill is called:

(a) tiama

(b) hymenium

(c) Paraphyses

(d) buttons

55. In which of the following plants, a vacuolated, sterile columella is present?

(a) in sporangium of rhizopus

(b) cleiostothecium of penicillium

(c) basidium of agaricus

(d) yeast ascus

56. The umbrella shaped structure of the basidiocarp of Agaricus is known as

- (a) stipe
- (b) gill
- (c) hymenium
- (d) pileus**

57. Mycorrhiza exhibits the phenomenon of

- (a) parasitism
- (b) symbiosis**
- (c) antagonism
- (d) endemism.

58. Most of the lichens consist of

- (a) green algae and ascomycetes**
- (b) brown algae and higher plant
- (c) blue green algae and basidiomycetes
- (d) red algae and ascomycetes.

59. Columella is a specialized structure found in the sporangium of

- (a) Spirogyra
- (b) Ulothrix
- (c) Rhizopus**
- (d) none of these.

60. Black rust of wheat is caused by

- (a) Puccinia**
- (b) Ustilago
- (c) Albugo
- (d) Phytophthora.

61. Fusion of two dissimilar gametes is known as

a. Isogamy

b. Oogamy

c. Anisogamy

d. Syngamy

62. Spirogyra thallus is type of

a. Motile colonial form

b. Filamentous form

c. Parenchymatous form

d. Heterotrichous form

63. Sexual reproduction is absent in

(a) Volvox

(b) Nostoc

(c) Aspergillus

(d) Ulothrix

64. This fungi division includes 'Club fungi'

(a) Zygomycota

(b) Deuteromycota

(c) Basidiomycota

(d) Ascomycota

55. The fungi which derive their food directly from dead organic matter are known as

(a) Predators

(b) Decomposers

(c) Mutualists

(d) Parasitic fungi

66. What does 'Perfect stage' of a fungus indicate?

- (a) indicates that it can reproduce asexually
- (b) indicates that it is perfectly healthy
- (c) indicates that it is able to form perfect sexual spores

(d) All of the above

67. Absorptive heterotrophic mode of nutrition is present in_____.

(a) Pteridophytes

(b) Bryophytes

(c) Fungi

(d) Algae

68. Asexual reproduction in Rhizopus is by the formation of_____.

(a) Zygosporangia

(b) Motile zoospores

(c) Sporangiospores

(d) Zoogametes

69. Which of the following class does Rhizopus belong to?

(a) Ascomycetes

(b) Chytridiomycetes

(c) Deuteromycetes

(d) Zygomycetes

70. Sexual reproduction in Rhizopus takes place by fusion of_____.

(a) Two sporangia

(b) Two gametangia

(c) Two gametes

(d) Two hyphae