

I. Choose the correct answer :

(5x5=5)

1. The plant body of algae is called as _____
a) Stem b) Thallus c) Leaf d) Root
2. _____ shows both living and non – living characteristics
a) Bacteria b) Fungi c) Virus d) Protozoa
3. The treatment for potato blight disease is using _____
a) Fertilizers b) Bactericides c) Fungicides d) Insecticides
4. _____ is an example for colonial form of algae.
a) Oscillatoria b) Volvox c) Nostoc d) Chlorella
5. Soil erosion is prevented by _____ plants.
a) Algae b) Fungi c) Pteridophyte d) Bryophyte

II. Fill in the blanks:

(5x1=5)

6. The book “Genera Plantarum” was written by _____
7. Agar Agar is obtained from _____ algae.
8. Yeast grows in all kinds of media containing _____
9. _____ are the infectious protein particles.
10. _____ is a bryophyte which is used in horticulture.

III. Match the following:

(5x1=5)

- | | | |
|------------------------------|---|------------|
| 11. Nitrogen fixing bacteria | - | Prion |
| 12. Tuberculosis | - | Rhizobium |
| 13. Kuru | - | False feet |
| 14. Edward Jenner | - | Bacteria |
| 15. Pseudopodia | - | Vaccine |

IV. True or False:

(5x1=5)

16. Chicken pox is a communicable disease.
17. Female Anopheles mosquito is the carrier of dengue virus.

18. Pinus is a closed seeded plant

19. The dominant phase of Pteridophyte is diploid (2n)

20. *Lactobacillus acidophilus* convert sugar and carbohydrates into lactic acid.

V. Assertion and Reason :

(2x1=2)

21. Assertion (A) : Malaria is caused by protozoa

Reason (R) : The disease is transmitted by mosquito.

- a) Both A and R are true, R explains A.
- b) Both A and R are true, R does not explain A.
- c) A is true, R is false.
- d) Both A and R are false.

22. Assertion (A) : Algae are heterotrophic

Reason (R) : They don't have chlorophyll

- a) Both A and R are true, R explains A
- b) Both A and R are true, R does not explain A.
- c) A is true, R is false.
- d) Both A and R are false.

VI. Very short answers:

(10x1=10)

23. Write the name of any two nitrogen fixing bacteria.

24. Which diseases can be prevented by Vaccination?

25. Who discovered Penicillin?

26. Write the names of any two protozoan.

27. Write any one economic importance of fungi.

28. Seeds of gymnosperm plants are naked. Why?

29. Define thallus.

30. Name the bacteria used in the production of vinegar.

31.a) In chlamydomonas _____ vacuoles are seen at the base of each flagellum.

b) Name the color of eyespot in chlamydomonas.

32. Name any two types of Bio-fertilizers.

VII. 33. Find out the correct pairs: (3x1=3)

Which of the following pairs are correct?

a) i, ii b) iii, iv c) i, ii, iii d) i, ii, iv

(i) *Phyllanthus amarus* - Euphorbiaceae

(ii) *Solanum trilobatum* - Solanaceae

(iii) *Acalypha indica* - Mabraceae

(iv) *Aegle marmelos* - Rutaceae

34. Which of the sequences are correct?

(i) In Bryophytes – Gametophytes – sex organs -Gamete fusion – Zygote – Spore mother cell – Spore – Thallus

(ii) In Angiosperms - Pollination - Fertilization - Zygote -New Plant

(iii) In Gymnosperms – Male cone and female cone – microspore and megaspore – Zygote – new sporophyte plant.

(iv) In Pteridophytes – Pollination by wind – Fertilization in the presence of water – Zygote – Prothallus – new plant.

a) i, ii, iii b) i, ii c) iii, iv d) ii, iv

35. Which of the characters are not suitable to angiosperm?

(i) Reticulate /Parallel venation, closed seeded plants, sieve tubes are present in phloem.

(ii) Seeds are open, ovary is not present, gametes are produced in cones.

(iii) Tracheids are the conducting cells, companion cells are not present in phloem.

(iv) Trimerous or tetramerous, closed seed, seed with seed coat, bears fruit.

a) i, ii b) ii, iii c) iii, iv d) i, iv

VIII. Picture based questions: (2x2¹/₂=5)

Draw a neat labelled sketch of the following,

36. Bacteria

37. Chlamydomonas

IX. Answer any eight of the following short answers: (8x2¹/₂=20)

(Question number 45 is compulsory)

38. What are antibiotics?

39. Why microorganisms are essential for agriculture?

40. What are pathogens?

41. Write the four types of bacteria based on their shape.

42. Write short notes about natural system of classification.

43. Write the differences between algae and fungi.

44. Write any three economic importance of algae.

45. Write the five types of bacteria based on the arrangement of flagella.

46. How disease causing microorganisms enter into human beings?

47. Write any three characters of Pteridophytes

48. What is mean by Binomial Nomenclature ? Give Examples.

X. Answer any three in detail : (3x5=15)

49. How microorganisms are useful in the field of medicine?

50. Write a short note on common human diseases caused by microorganisms

51. Write any five differences between monocot and dicot plants.

52. Draw the outline of Bentham and Hookers system classification.

53. Write a short note on bacteria and its structures.

(No need to Draw)