



## QUARTERLY EXAMINATION - 2023

**XI - STD**

**BOTANY**

Marks : 70

TIME: 3.00 Hrs

Part - A

15 x 1 = 15

Choose the correct Answer.

- Select the mismatch pair
  - Musa - Unicostate
  - Lablab - Trifoliolate
  - Acalypha - Leaf mosaic
  - Allamanda - Ternate phyllotaxy
- Endosperm in gymnosperm is formed
  - At the time of fertilization
  - Before fertilization
  - After fertilization
  - Along with the development of embryo
- In meiosis crossing over is initiated at
  - Diplotene
  - Pachytene
  - Leptotene
  - Zygotene
- Which of the following is polycarpic plant?
  - Mangifera
  - Bambusa
  - Musa
  - Agave
- Sequences of which of the following is used to know the phylogeny.
  - mRNA
  - rRNA
  - tRNA
  - Hn RNA
- Vexillary aestivation is characteristic of the family
  - Fabaceae
  - Asteraceae
  - Solanaceae
  - Brassicaceae
- Many cells function properly and divide mitotically even though they do not have.
  - Plasma membrane
  - cytoskeleton
  - mitochondria
  - Plastids
- Which of following represents gametophytic generation in pteridophytes?
  - Prothallus
  - Thallus
  - Cone
  - Rhizophore
- The pairing of homologous chromosomes on meiosis is known as
  - Bivalent
  - Synapsis
  - Disjunction
  - Synergids
- The taxonomy which involves the similarities and dissimilarities among the immune system of different taxa is termed as
  - Chemotaxonomy
  - Molecular systematics
  - Serotaxonomy
  - Numerical taxonomy
- Identify the Archaeobacterium
  - Acetobacter
  - Erwinia
  - Treponema
  - Methanobacterium
- Which of the following is a flowering plant with nodules containing filamentous nitrogen fixing micro - organisms?
  - Crotalaria juncea
  - Cycas revoluta
  - Cicer arietinum
  - Casuarina equisetifolia
- Identify the incorrect statement about the Gram-positive bacteria
  - Teichoic acid absent
  - High percentage of peptidoglycan is found in cell wall
  - Cell wall is single layered
  - Lipopolysaccharide is present in cell wall
- The most basic amino acid is
  - Arginine
  - Histidine
  - Glycine
  - Glutamine
- In an inflorescence where flowers are borne laterally in an acropetal succession the position of the youngest floral bud shall be
  - Proximal
  - Distal
  - Intercalary
  - Anywhere

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Part - B  
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Answer any SIX of the following Question. Number 24 is Compulsory. 6 x 2 = 12

- 16. Distinguish between nitrogenous base and a base found in inorganic chemistry.
- 17. Where will you place the plants which contain two cotyledons with cup shaped thalamus?
- 18. Write any two significance of mitosis.
- 19. What is plectostele? give example
- 20. Differentiate between aggregate fruit with multiple fruit.
- 21. Bring out the significance of Transmission Electron Microscope.
- 22. Write notes on Primary functions of the Stem
- 23. What is Nucule?
- 24. What is Archaeobacteria?

Answer any SIX of the following Question, Number 33 is Compulsory. 6 x 3 = 18

- 25. Write the distinguishing features of monera
- 26. Do you think shape of chloroplast is unique for algae. Justify your answer?
- 27. Give the short notes on Polytene chromosomes
- 28. Find out the floral formula for a bisexual flower with bract, regular pentamerous, distinct calyx and corolla, superior ovary without bracteole.
- 29. What is uses of Herbarium
- 30. Bring out the significance of cell wall.
- 31. Write any three significance of meiosis.
- 32. List out the Properties of Enzyme
- 33. Draw and label the parts of regions of root.

Answer all the questions.

- 34. Add a note on merits and demeri of five kingdom classification [or] system of different taxa is termed as
- 35. Differentiate Gymnosperms and Angiosperms [or] What is Root Modification? Describe Taproot modification.
- 36. Explain the Phylotaxy
- 37. Explain the type of Placentation [or] Discuss the outline of Bentham and Hooker's classification of plants.
- 38. Give the floral characters of Clitoria ternatea. [or] Identify the incorrect statement about the Gram-positive bacteria
- 39. Differentiate between mitosis and meiosis
- 40. Difference between plant and animal cell. [or] Explain the structure of DNA.
- 41. In an inflorescence where flowers are borne laterally in an acropetal succession the position of the youngest floral bud shall be
- 42. The most basic amino acid is
- 43. Identify the Archaeobacterium
- 44. Which of the following is a flowering plant with nodules containing filamentous nitrogen fixing micro organisms?
- 45. The taxonmy which involves the similarities and dissimilarities among the immune system of different taxa is termed as
- 46. The pairing of homologous chromosomes on meiosis is known as
- 47. Many cells function properly and divide mitotically even though they do not have a nucleus
- 48. Which of following represents gametophytic generation in pteridophytes?
- 49. The taxonmy which involves the similarities and dissimilarities among the immune system of different taxa is termed as
- 50. The taxonmy which involves the similarities and dissimilarities among the immune system of different taxa is termed as

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