

SUN TUITION CENTER- 9629216361

**Botany Important 5 marks**

12th Standard

Biology

- 1) Write short note on Pollen kitt.
- 2) Distinguish tenuinucellate and crassinucellate ovules.
- 3) 'Pollination in Gymnosperms is different from Angiosperms' – Give reasons.
- 4) Write short note on Heterostyly.
- 5) Enumerate the characteristic features of Entomophilous flowers
- 6) Discuss the steps involved in Microsporogenesis.
- 7) With a suitable diagram explain the structure of an ovule.
- 8) Give a concise account on steps involved in fertilization of an angiosperm plant.
- 9) What is endosperm. Explain the types.
- 10) Differentiate the structure of Dicot and Monocot seed.
- 11) Give a detailed account on parthenocarpy. Add a note on its significance.
- 12) Give a comparative account on Anther wall layers
- 13) Explain the development process of male gametophyte.
- 14) Explain any five types of angiospermic ovules.
- 15) Describe the development of monosporic embryo sac.
- 16) Enumerate the characters of anemophilous flowers
- 17) Describe the structure of a dicot seed.
- 18) Describe dominant epistasis with an example.
- 19) Explain polygenic inheritance with an example.
- 20) Differentiate continuous variation with discontinuous variation.
- 21) Explain with an example how single genes affect multiple traits and alleles the phenotype of an organism.
- 22) Bring out the inheritance of chloroplast gene with an example.
- 23) Explain Dihybrid cross in pea plant.
- 24) How does the wrinkled gene make Mendel's peas wrinkled? Find out the molecular explanation.
- 25) Describe incomplete dominance exhibited by *Mirabilis jalapa*.
- 26) How is *Nicotiana* exhibit self-incompatibility. Explain its mechanism.
- 27) How sex is determined in monoecious plants. write their genes involved in it.
- 28) What is gene mapping? Write its uses
- 29) Draw the diagram of different types of aneuploidy.
- 30) Mention the name of man-made cereal. How it is formed?
- 31) Why crossing over is important?
- 32) Draw a Howchart depicting the various types of ploidy.
- 33) Explain hyperploidy with its types.
- 34) List out the significance of ploidy.
- 35) Explain the Translocation type of chromosomal aberration.
- 36) Compare the various types of Blotting techniques

- 37) Write the advantages of herbicide tolerant crops
- 38) Write the advantages and disadvantages of Bt cotton.
- 39) What is bioremediation? give some examples of bioremediation.
- 40) Write the benefits and risk of Genetically Modified Foods.
- 41) Describe the steps involved in recombinant DNA technology.
- 42) Explain in detail about various types of direct gene transfer method.
- 43) Describe the procedure of Blue- White colony selection methods.
- 44) Write a note on Replica plating technique.
- 45) How Agarose Gel Electrophoresis is performed?
- 46) Explain the procedure of Southern Blotting Technique. Southern Blotting Techniques - DNA
- 47) Give an account on Cryopreservation.
- 48) What do you know about Germplasm conservation. Describe it.
- 49) Write the protocol for artificial seed preparation.
- 50) Explain the steps involved in protoplast culture.
- 51) Point out the applications of plant tissue culture.
- 52) Discuss the protocol for micropropagation of banana.
- 53) Enumerate the advantages of Artificial seeds.
- 54) Prepare a protocol for virus free meristem tip culture.
- 55) How is anemochory differ from zoochory?
- 56) What is co evolution?
- 57) Explain Raunkiaer classification in the world's vegetation based on the temperature
- 58) List out the effects of fire to plants.
- 59) What is soil profile? Explain the characters of different soil horizons.
- 60) Give an account of various types of parasitism with examples.
- 61) Explain different types of hydrophytes with examples.
- 62) Enumerate the anatomical adaptations of xerophytes.
- 63) List out any five morphological adaptations of halophytes.
- 64) What are the advantages of seed dispersal?
- 65) Describe dispersal of fruit and seeds by animals.
- 66) Explain various edaphic factors that affect vegetation.
- 67) What does competition refers to? Classify and describe it.
- 68) Point out any five morphological adaptations of epiphytes.
- 69) Generally in summer the forest are affected by natural fire. Over a period of time it recovers itself by the process of successions .Find out the types of succession and explain.
- 70) Draw a pyramid from following details and explain in brief.  
Quantities of organisms are given-Hawks-50, plants-1000.rabbit and mouse-250 +250, pythons and lizard- 100 + 50 respectively.
- 71) Various stages of succession are given bellow. From that rearrange them accordingly. Find out the type of succession and explain in detail.  
Reed-swamp stage, phytoplankton stage, shrub stage, submerged plant stage, forest stage, submerged free floating stage, marsh meadow stage.
- 72) Describe the various stages of decomposition process.
- 73) Give a detailed account of Biotic and abiotic components of a pond ecosystem.

- 74) What are the strategies of eco system management?
- 75) List the characteristics of ecological succession.
- 76) Differentiate Primary succession and Secondary succession.
- 77) Write in detail about Autogenic succession and Allogenic succession.
- 78) What are the significance of plant succession?
- 79) Suggest a solution to water crisis and explain its advantages.
- 80) Explain afforestation with case studies.
- 81) What are the effects of deforestation and benefits of agroforestry?
- 82) List out the major effects of Ozone Depletion.
- 83) What are the objectives of Afforestation programme?
- 84) How Eichhornia crassiper spoils the Indian ecosystem?
- 85) Write a comparative note on Carbon Foot Print (CFP).
- 86) Write in detail about Remote sensing and its uses.
- 87) Write a note on heterosis.
- 88) List out the new breeding techniques involved in developing new traits in plant breeding.
- 89) Give a comparative account on Seaweed liquid fertilizer.
- 90) Explain the steps involved in hybridization.
- 91) Give an account on the role of Jasminum in perfuming.
- 92) Give an account of active principle and medicinal values of any two plants you have studied.
- 93) Write the economic importance of rice.
- 94) Which TSM is widely practiced and culturally accepted in Tamil Nadu? - explain.
- 95) What are psychoactive drugs? Add a note Marijuana and Opium
- 96) What are the King and Queen of spices? Explain about them and their uses.
- 97) How will you prepare an organic pesticide for your home garden with the vegetables available from your kitchen?
- 98) Write the botanical name, origin, cultivational area and uses of Black gram.  
Botanical name : Vigna mungo
- 99) Give a detailed account on anyone fibre yielding plant.
- 100) Draw a table mentioning binominals, family name, useful part and their medical uses of any five local medicinal plants
- 101) Explain the stepwise preparation of Bio-pest repellent from the leaves of Azadirachta indica

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10<sup>th</sup> ALL SUBJECT

QUESTION BANK ARE AVAILABLE

TAMIL AND ENGLISH MEDIUM

12<sup>th</sup> tamil, english, maths, physics & chemistry

question bank are available

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