MODEL QUESTION PAPER

BOTANY – Paper II

Time : 3 Hours Max Marks : 60

Section – A

(Very short Answer type) 10x2=20 Marks

i) Answer all questions..
ii) Each question carries 2 marks.

1. Why Spirogyra filament is slimy to touch?
2. Who discovered 'transducation' and in which bacterium?
3. Differentiate between 'mass selection' and 'Pure line selection'
4. Mention the two functions of carotenoids.
5. Give any two differences between 'Gram Positive' and 'Gram negative' bacteria.
6. Distinguish between passive and active ion absorptions.
7. Define simple enzyme and conjugated enzyme.
8. what happens when gibberellins are sprayed on dwarf maize plant ?
9. Microscope observation of an infected leaf shows unicellular conidiophores with sickle shaped conidia. Identify the disease and name the pathogen that causes it.
10. Among two adjacent cells 'A' and 'B', 'A' has osmotic potential of – 0.5 Mpa and pressure potential of 0.3 Mpa and 'B' has osmotic potential of –0.8 mpa and pressure potential of 0.5 mpa. Give the direction of relative movement of water.

Section – B

(Short Answer Type) 6 x 4 = 24 marks

i) Answer any SIX of the following Questions.
ii) Each Question carries 4 marks.

11. Explain the asexual reproduction by sporangiospores in Rhizopus with labelled diagrams.
12. Explain the mechanism of opening and closing of stomata giving diagrammatic representation.
13. Differentiate between the archegonia of Funaria and Pteris with the help of labelled diagrams.
14. Write about multiplication of T-even phages with labelled diagrams
15. Give the differences between aerobic and anaerobic respiration.
16. Explain the symptoms of blast of rice giving labelled diagrams.
17. Enumerate the applications of plant tissue culture.
18. Why C_4 Plants are more efficient in photosynthesis that C_3 Plants ? Give the biochemical reactions than take place in mesophyil cells of C_4 Plants.

Section – C

(Eassy Type Question) 2 x 8 = 16 Marks

i) Answer any TWO of the following Questions.
ii) All Questions carry 8 marks each.

19. Describe the internal structures of Pinnule of cycas with the help of a labelled diagram.

20. Elucidate the steps involved in recombinant D.N.A technology with lebelled diagrams.

21. Explain the various steps in the systhesis of polypeptide chain during translation giving labelled diagrams.

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