

Model Paper 2014 Botany

Inter 1st Year

Time : 3 hrs]

[Max Marks : 60

SECTION – A

(10 X 2 = 20)

Answer all the questions (Very short answer type)

1. What is growth? What is the difference between the growth in living organisms and growth in non-living objects?
2. What is the principle underlining the use of cyanobacteria in agriculture fields for crop improvement?
3. Mention the ploidy of the following?
 - (a) Leaf cell of a moss
 - (b) PEN in a dicotyledon
 - (c) Meristem cell of monocot
 - (d) Gemma cell in Marchantia
4. Why certain fruits are called false fruits? Name two examples of plants having false fruits?
5. What is the Morphology of cup like structure in cyathium? In which family it is found?
6. Explain the scope and significance of 'Numerical Taxonomy'?
7. What are microbodies ? What do they contain?
8. Glycine and Alanine are different with respect to one substituent on the – carbon. What are the other common substituent groups?
9. Assume that the average duplication time of E. coli is 20 minutes. How much time will two E. coli cells take to become 32 cells ?
10. Climax stage is achieved quickly in secondary succession as compared to primary succession. why ?

SECTION – B

(4 X 6 = 24)

Answer any six questions (Short answer type)

11. Explain in brief the scope of Botany in relation to agriculture, Horticulture and medicine?
12. Give the salient features and importance of chrysophytes ?
13. Give a brief account on the phases of the life cycle of an angiosperm plant ?
14. Describe essential floral parts of plants belonging to Liliaceae ?
15. Describe centrosome ?
16. Though redundantly described as a resting phase, interphase does not really involve rest. Comment?
17. A transverse section of the trunk of a tree shows concentric rings which are known as annual rings. How are these rings formed ? What is the significance of these rings ?
18. Define plant succession. Differentiate primary and secondary successions?

SECTION – C

(2 X 8 = 16)

Answer any two questions (Long answer type)

19. Explain how stem is modified variously to perform different functions?
20. Describe the process of fertilization in angiosperms ?
21. Describe the internal structure of dorsiventral leaf with the help of a labeled diagram?