Higher Secondary Second Year

BOTANY

Model Question Paper – 1

Time : 2.30 hours Marks: 70

Section – I 15x1=15

Answer all the questions:-

1. The number of families in dicotyledonae are…
a) 132 b) 146
c) 165 d) 182

2. Anthers are monothecous in
a) Solanaceae b) Euphorbiaceae
c) Malvaceae d) Musaceae

3. In mature sieve elements the pores in the sieve plate are blocked by a substance called…
a) Pectin b) Renin
c) Callose d) Elictin

4. The determination of the age of a tree by counting the annual rings is called
a) Palynology b) Dendrochronology
c) Chronology d) Pathology

5. The terminal part of a chromosome is called…
a) Sarcomere b) Telomere
c) Kinetochore d) Centromere

6. The unit of genetic map is
a) Morgan b) Centimeter
c) Nanometer d) Locus

7. Allopolyploid is induced in plant by the following treatment chemical called

a) Quinine
b) Morphine
c) Colchicines
d) Citric acid

8. Insecticidal activity of Bacillus thuringiensis bacteria depends on a toxic protein called…

a) Basta
b) Polyhydroxy butyrate
c) Delta endotoxin
d) Camphor

9. The function of cytokinin is

a) Cell elongation
b) Fruit initiation
c) Cell division
d) differentiation

10. Enzyme pepsin is active in

a) Alkaline medium
b) Neutral medium
c) Acidic medium
d) Basal medium

11. Which of the following is a 5c compound?

a) Glucose
b) Fructose
c) Phospho glyceric
d) RUBP

12. Medicine used for treating heart disease

a) Digoxin
b) Quinine
c) Ephedrine
d) Ginseng

13. Bio fertilizer used successfully in India rice fields

a) Gracilaria
b) Laminaria
c) Azolla
d) Acacia

14. In Ixora coccinea the stamens are

a) Mono adelphous
b) Syngenesious
c) Epipetalious
d) Diadelephous

15. The root hairs originate from

a) Trichonblaste b) Endodermis
c) Hypodermis d) Pericycle

Section – II 6x2=12

Answer any six of the following. Question No.22 is compulsory:-

16. What is Epicalyx?
17. What is Pseudo stem?
18. Draw and label amphicribral vascular bundle.
19. What are sclereids?
20. Define crossing over.
21. Define vernalisation.
22. Draw and label lampbrush chromosome.
23. Define humulin.
24. What is the function of DNA ligase?

Section – III 6x3=18

Answer any six of the following. Question No.27 is compulsory:-

25. Name the ornamental plants of Malvaceae
26. What are lenticels?
27. Write any three significance of ploidy
28. What is gene gum method?
29. Write the process by which Co2 is evolved during respiration
30. Write a note on tracheids.
31. Write the economic importance of musaceae.
32. Differentiate C3 and C4 pathways
33. Write the economic importance of groundnut.

Section – IV 5x5=25

Answer all the following:-

34. Explain Clitoria ternatea in technical terms

(Or)

Differentiate heart wood and sapwood.

35. Explain Bentham and Hooker's natural system of classification.

(Or)

Explain gene mutation.

36. Draw and label T.S of Monocot stem.

(Or)

What is SCP? What are the uses of SCP?

37. Explain Glycolysis (flow chart only).

(Or)

Write the aims of plant breeding

38. Explain C2 cycle (flow chart (or) explanation).

(Or)

Explain special types of Chromosomes.