Higher Secondary Second Year

BOTANY

Model Question Paper – 3

Time: 2.30 hours		Marks: 70	
	Section – I	15x1=15	
Answer all the questions:-			
Choose the most suitable answe option code and the correspondi	er from the given four alternative ing answer.	es and write the	
1. The advanced family	in monocotyledons is.		
a) Musaceae	b) Arecaceae		
c) Orchidaceae	d) Zingiberace	eae	
2. 'Pyrethrum' is obtained	ed from		
a) Eclipta prostrata	b) Tagetus		
c) Helianthus annus	d) Chrysanthemum	cocsineum	
3. Genera plantarum of l	Bentham and Hooker was publis	shed in	
a) a single volume	b) two volumes		
c) three volumes	d) three volumes		
4. Phloem parenchyma	is absent in		
a) Pteridophyte	b) Monocots		
c) Gymnosperms	d) Dicots		
5. During the formation are formed in the cortex	of Periderm, a few layers of men	ristematic tissue	
a) Cork	b) Phelloge	en	
c) Phelloderm	d) Phellem		
6. Intercalary meristem	is prominently found in		
a) Nymphaea	b) Helianthus		

c) Grasses	d) Clitoria			
7. According to Bateson and Punner	t, in Lathyrus odaratus how many			
percent of the test cross progeny we	ere recombinants?			
a) 7	b) 1			
c) 12	d) 6			
8. Cistron is a unit of				
a) Recombination	b) Function			
c) Mutation	d) Genetic map			
9. The pH of the plant tissue culture medium is adjusted to				
a) 5.8	b) 7.6			
c) 8.2	d) 8.5			
10. One of the following organisms	is a SCP			
a) Nostoc	b) Rhizobium			
c) Mushroom	d) Spirulina			
11. These enzymes catalyze the clea	avage of specific covalent bonds and			
removal of groups without hydrolys	is are called			
a) Ligases	b) Hydrolases			
c) Lyases	d) Transferase			
12. Who postulated 'Law of limiting	g factor'?			
a) Calvin	b) Hatch-slack			
c) Blackmann	d) Dickens			
13. Cytokinin found in the endosper	rm of coconut is			
a) 2, 4-D	b) Zeatin			
c) ABA	d) GAI			
14. Induced mutation yields a new v	variety called			
a) Rust resistant wheat	b) Atomita-2 rice			
c) Drought resistant maize	d) Vitamin-A rich rice			

- 15. The strongest painkiller is obtained from
- a) Ginseng

b) Morphine

c) Quinine

d) Ephedrine

Section – II

6x2=12

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

- 16. What is syngenesious stamen?
- 17. Write the systematic position of musaceae.
- 18. What is differentiation?
- 19. What are tyloses?
- 20. Draw the four morphogenic types of chromosomes and label them
- 21. Give the binomials of at least two monocot transgenic plants.
- 22. What is holoenzyme?
- 23. What is Richmond Lang effect?
- 24. What is humulin?

Section – III

6x3 = 18

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

- 25. Define biomedicine. Give one example.
- 26. What is Papilionaceous corolla?
- 27. Bring out any three merits of Bentham and Hooker's classification of plants.
- 28. Explain different types of meristems based on their position.
- 29. Draw and label the parts of a T.S of a dicot leaf.
- 30. Write any three significance of ploidy.
- 31. Write the algal organisms used for SCP production.
- 32. Write the differences between photo respiration and dark respiration.
- 33. Write the physiological effects of Cytokinin.

Answer all the following:-

34. Discuss the outline of Bentham and Hooker's classification of plants. (Flow chart (or) explanation).

(Or)

Describe Musa paradisiaca in technical terms.

35. Describe Vascular tissue system.

(Or)

Differentiate the Vascular bundles of the dicot stem from that of monocot stem.

36. Write an account on the structure of RNA and its types.

(Or)

Write the economic importance of cotton.

37. Write the basic concepts of plant tissue culture.

(Or)

Write an essay on DNA recombinant technology.

38. Write short notes on Ganong's high screen experiments.

(Or)

Draw the flow chart of Glycolysis