

64/2015

(Pages : 4)

Maximum : 200 marks

Time : 1½ hours

**PART - I**

(Each answer shall be limited to one sentence)

A. Write the full form of the following acronyms :

1. ATP
2. ICBN
3. BSI
4. PPLO
5. JNTBGRI

B. Fill in the blanks :

6. Mendel's dihybrid phenotypic ratio is \_\_\_\_\_.
7. Sporangia which develops from a single initial is called \_\_\_\_\_.
8. In DNA, Cytosine pairs with \_\_\_\_\_.
9. Father of Indian Angiosperm Embryology is, \_\_\_\_\_.
10. Development of gametophyte from the sporophyte without the formation of spores is known as \_\_\_\_\_.
11. The source plant of Quinine is \_\_\_\_\_.
12. Removal of stamens from the flowers before anthesis is called \_\_\_\_\_.
13. Bacteria bearing flagella all over the body are called \_\_\_\_\_.
14. Juvenile state of Funaria is \_\_\_\_\_.

[P.T.O.]

15. The plant part which is used for regeneration into whole plant in tissue culture is called \_\_\_\_\_.
16. During photosynthesis, the oxygen is evolved as a byproduct. This oxygen comes from \_\_\_\_\_.
17. Genes located on Y chromosomes are called \_\_\_\_\_.
18. Vacuolar membrane is called \_\_\_\_\_.
19. Histogen theory of shoot apex was proposed by \_\_\_\_\_.
20. The botanical name of Rice plant is \_\_\_\_\_.
- C. Choose the correct answer :
21. Gynobasic style is present in the family :
- (a) Annonaceae (b) Lamiaceae  
(c) Lilliaceae (d) Amaranthaceae
22. Girdling leaf traces are the characteristic feature of the stem of :
- (a) Cycas (b) Pinus  
(c) Ephedra (d) Gnetum
23. Single trisomy is represented as :
- (a)  $2n + 1$  (b)  $2n - 1$   
(c)  $2n - 2$  (d)  $2n + 2$
24. The age of fossils is determined by :
- (a) Dendrochronology (b) Calcium deposition  
(c) Palaentology (d) Radio carbon dating
25. A GM plant is :
- (a) Terminator plant (b) Transgenic plant  
(c) Translated plant (d) Transduced plant

26. Bacterial transformation was discovered by :
- (a) Darwin (b) Leeuwenhoek  
(c) Griffith (d) Robert Brown
27. "Shower of Sulphar" is associated with :
- (a) Gnetum (b) Pinus  
(c) Cycas (d) Equisetum
28. The movement of pollen tube towards the embryo sac is :
- (a) Thermotactic (b) Thigmotactic  
(c) Chemotactic (d) Phototactic
29. Inheritance of skin colour in Man is :
- (a) Epistasis (b) Polygenic  
(c) Monogenic (d) Trigenic
30. Mutation was first observed in :
- (a) *Oenothera lamarckiana* (b) *Pisum sativum*  
(c) *Drosophila melanogaster* (d) *Nepenthes tentaculata*

(30 × 4 = 120)

### PART - II

Answers shall be limited to one paragraph.

31. Cell division in *Pinnularia*  
32. Gram staining  
33. Double fertilization and triple fusion  
34. Cyathium inflorescence  
35. FAA

36. Hydathodes

37. Amphiphloic siphonostele

38. Reasons for selecting *Pisum sativum* as experimental material by Gregor Johann Mendel.  
(8 × 10 = 80)

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