

1. Jumping genes in maize were discovered by  
(a) Hugo de Vries (b) Barbara McClintock  
(c) T H Morgan (d) Mendel
2. Streptomycin is obtained from  
(a) *Streptomyces griseus* (b) *S. aureofaciens*  
(c) *S. venezuelae* (d) *S. ramosus*
3. Indusium is found in  
(a) algae (b) ferns  
(c) moss (d) *Cycas*
4. The vacuole is lined by a membrane called  
(a) tonoplast (b) jacket  
(c) cell membrane (d) tonoplasm
5. Agar-agar is obtained from  
(a) *Chlorella* (b) *Spirogyra*  
(c) *Ulothrix* (d) *Gelidium*
6. DNA element with ability to change position is called  
(a) cistron (b) transposon  
(c) intron (d) recon
7. Initiation codon is  
(a) UUU (b) UGA  
(c) AUG (d) UAG
8. DNA multiplication is called  
(a) translation (b) replication  
(c) transduction (d) transcription
9. Duramen is present in  
(a) inner region of secondary wood  
(b) part of sap wood  
(c) outer region of secondary wood  
(d) region of pericycle
10. In plants, water supply is due to  
(a) osmosis (b) imbibition  
(c) guttation (d) adhesion force
11. Most of the economically important fibre yielding plants belong to family  
(a) Malvaceae (b) Solanaceae  
(c) Cruciferae (d) Poaceae
12. Paraffin wax is  
(a) ester  
(b) acid  
(c) monohydric alcohol  
(d) cholesterol
13. Which is always present in photochemical smog?  
(a) O<sub>3</sub> (b) CO<sub>2</sub> (c) SO<sub>2</sub> (d) CH<sub>4</sub>
14. In cell cycle, during which phase, chromosomes are arranged in equatorial plate?  
(a) Metaphase (b) Anaphase  
(c) Telophase (d) Prophase
15. The soil which is transported by wind is known as  
(a) colluvial (b) eolian  
(c) aluvial (d) glacial soil
16. Spindle fibre is made up of  
(a) tubulin  
(b) humulin  
(c) intermediate filament  
(d) flagellin
17. Lichen is the pioneer vegetation on which succession?  
(a) Hydrosere (b) Lithosere  
(c) Psammosere (d) Xerosere
18. In *Pinus*, male cone bears a large number of  
(a) ligules  
(b) anthers  
(c) micro-sporophylls  
(d) mega-sporophylls

19. Induction of flowering by low temperature treatment is  
 (a) vernalization (b) cryobiology  
 (c) photoperiodism (d) pruning
20. Decomposers are  
 (a) autotrophs (b) autoheterotrophs  
 (c) organotrophs (d) heterotrophs
21. Cleavage polyembryony occurs in  
 (a) *Pinus* (b) *Mini Cycas*  
 (c) *Cycas* (d) *Ephedra*
22. Edible part of mushroom is  
 (a) basidiocarp  
 (b) secondary mycelium  
 (c) primary mycelium  
 (d) tertiary mycelium
23. Calyptra is derived from  
 (a) archegonia (b) capsule  
 (c) antheridia (d) columella
24. 'Clamp connections' are observed in  
 (a) Basidiomycetes (b) Zygomycetes  
 (c) Ascomycetes (d) Oomycetes
25. What is the main cause for the extinction of some species in tropical forest?  
 (a) Deforestation (b) Afforestation  
 (c) Pollution (d) Soil erosion
26. Most accepted theory for ascent of sap is  
 (a) capillarity theory (b) root pressure theory  
 (c) pulsation theory (d) transpiration pull
27. Which of the following is not the feature of gymnosperms?  
 (a) Parallel venation  
 (b) Perennial plants  
 (c) Distinct branches (long and short branches)  
 (d) Xylem with vessels
28. The presence of diversity at the junction of territories of two different habitats is known as  
 (a) bottle neck effect (b) edge effect  
 (c) junction effect (d) Pasteur effect
29. In which form does the food transported in plants?  
 (a) Sucrose (b) Fructose  
 (c) Glucose (d) Lactose
30. In *Cycas*, pollination takes place in  
 (a) 3 celled stage (b) 4 celled stage  
 (c) 2 celled stage (d) 1 celled stage
31. The bioassay of auxin is  
 (a) avena curvature test  
 (b) callus formation  
 (c) culture of fungus  
 (d) seed dormancy
32. A eukaryotic gene contains two kinds of base sequences. Which of these plays an important role in protein synthesis?  
 (a) Introns (b) Exons  
 (c) Both (a) and (b) (d) None of these
33. L-shaped chromosomes are also called  
 (a) acrocentric (b) telocentric  
 (c) sub-metacentric (d) None of these
34. Which of the following is/are grouped under phanerogams?  
 (a) Angiosperms (b) Gymnosperms  
 (c) Pteridophytes (d) Both (a) and (b)
35. A bacterium divides after every 35 min., if a culture containing  $10^5$  cells per mL is grown, then cell concentration per mL after 175 min. will be  
 (a)  $175 \times 10^5$  (b)  $125 \times 10^5$   
 (c)  $48 \times 10^5$  (d)  $32 \times 10^5$
36. Which of the following theory gives the latest explanation for the closure of stomata?  
 (a) ABA theory  
 (b) Munch theory  
 (c) Starch glucose theory  
 (d) Active  $K^+$  transport theory
37. Biological concept of species is mainly based on  
 (a) reproductive isolation  
 (b) morphological features only  
 (c) methods of reproduction only  
 (d) morphology and methods of reproduction
38. In the treatment of waste water discharge, which treatment stage involves biological treatment?  
 (a) Primary treatment  
 (b) Secondary treatment  
 (c) Tertiary treatment  
 (d) Reverse osmosis stage
39. Nucellus forms which of the following part of fruit?  
 (a) Seed coat (b) Perisperm  
 (c) Seed (d) Raphe
40. If root of a flowering plant has 24 chromosomes, then its gamete has how many chromosomes?  
 (a) 24 (b) 12  
 (c) 4 (d) 8