

## 1 Mark Questions

- Which of the following cell organelles involved in photorespiration?  
(a) Peroxisomes (b) Ribosomes  
(c) Dictyosomes (d) Lysosomes
- Plasmodesmata connect neighbouring cells, forming a  
(a) symplast (b) apoplast  
(c) protoplast (d) tonoplast
- Which of the following is wrong for isobilateral leaves?  
(a) Stomata occur on both the epidermis  
(b) Mesophyll tissue is of one kind  
(c) Generally found in monocots  
(d) Presence of palisade and spongy cells
- Tyloses are found in  
(a) tracheids (b) xylem vessels  
(c) xylem parenchyma (d) xylem fibres
- The loss of liquid water through hydathode is called  
(a) guttation (b) transpiration  
(c) secretion (d) bleeding
- In which phase of the cell cycle, the drug colchicine exerts its effect?  
(a)  $G_1$  (b) S  
(c)  $G_2$  (d) M
- The condition when anthers mature earlier than stigma is known as  
(a) diecliny (b) herkogamy  
(c) protandry (d) protogyny
- The stalk with which the ovule remains attached to the placenta is called  
(a) funicle (b) hilum  
(c) micropyle (d) nucellus
- Viviparous germination is found in  
(a) *Rhizophora* sp. (b) *Mangifera* sp.  
(c) *Nymphaea* sp. (d) *Typha* sp.
- Seed storage proteins of legumes are deficient in  
(a) threonine (b) methionine  
(c) lysine (d) glycine
- A hormone that controls closure of stomata in response to water stress is  
(a) abscisic acid (b) gibberellins  
(c) ethylene (d) zeatin
- The process by which a cell secretes macromolecules by fusing a transport vesicle to the plasma membrane is called  
(a) pinocytosis (b) phagocytosis  
(c) endocytosis (d) exocytosis
- When a cell expends energy to move a solute across its membrane against a concentration gradient, the process is called  
(a) diffusion (b) facilitated diffusion  
(c) active transport (d) osmosis
- The  $CO_2$  acceptor in  $C_4$  plants is  
(a) 3-phosphoglyceric acid  
(b) ribulose biphosphate  
(c) phosphoenol pyruvic acid  
(d) xylulose 5-phosphate
- Absorption maxima of phytochrome ( $P_{fr}$ ) is  
(a) 660 nm (b) 680 nm  
(c) 700 nm (d) 730 nm
- Light harvesting complex II is located in the  
(a) thylakoid lumen  
(b) stroma  
(c) thylakoid membrane  
(d) outer membrane of chloroplast
- A known uncoupler of the electron transport chain and oxidative phosphorylation is  
(a) dinitrophenol (b) ancymidol  
(c) triacontanol (d) hexaconazol

18. The chromatin fibres at metaphase have an average diameter of  
(a) 100 Å (b) 200 Å  
(c) 300 Å (d) 400 Å
19. The maximum frequency of a recombination of genes at two loci is  
(a) 25% (b) 50%  
(c) 75% (d) 100%
20. Symbiotic association between fungi and roots of higher plants is known as  
(a) mycorrhiza (b) lichen  
(c) coralloid roots (d) epiphytic roots
21. Ergot of rye is caused by  
(a) *Fusarium oxysporum* (b) *Claviceps purpurea*  
(c) *Aspergillus niger* (d) *Alternaria solani*
22. Production of transgenic cotton resistant to lepidopteran insects utilises a toxin-producing gene isolated from  
(a) *Pseudomonas fluorescens*  
(b) *Bacillus thuringiensis*  
(c) *Bipolaris maydis*  
(d) *Clostridium tetani*
23. Hutchinson's phylogenetic system of classification appeared in the volume  
(a) *Genera Plantarum*  
(b) *Hortus Uplandicus*  
(c) *Die Natürlichen Pflanzenfamilien*  
(d) *Families of Flowering Plants*
24. Plants occurring on saline soils are called  
(a) hydrophytes  
(b) epiphytes  
(c) mesophytes  
(d) halophytes
25. A group of interconnected food chains is called  
(a) pyramid of energy (b) complex food chain  
(c) food web (d) food cycle