

RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE, RAHARA, KOLKATA
Undergraduate Admission Test: Botany Honours

Full Marks : 75

Time : 1 hour

1. Plants that grow on rocks or stones are called
a) Mesophytes b) Lithophytes c) Hydrophytes d) Hygrophytes
2. Example of Archaea
a) *Chlorella* b) *Mycoplasma* c) *Pyrococcus* d) all of the above
3. Name the photosynthetic bacteria of the following:
a) *Nitrobacter* & *Nitrosomonas* b) *Chlorobium* & *Rhodospirillum* c) *Streptococcus* & *Staphylococcus* d) *Chlorobium* & *Clostridium*
4. The genetic material of virus is
a) DNA b) RNA c) DNA and RNA d) DNA or RNA
5. SI unit of length is
a) miles b) meters c) yards d) feet
6. Root nodules are commonly found in
a) Leguminous plants b) Parasitic plants c) Epiphytic Plants d) Aquatic plants
7. Companion cells are closely associated with
a) Trichomes b) Guard cells c) Sieve elements d) Vessel elements
8. Capitulum inflorescence is found in
a) Asteraceae b) Solanaceae c) Malvaceae d) Rosaceae
9. Mendel's principle of segregation means that the germ cells always receive
a) One pair of alleles b) One quarter of the genes c) One of the paired alleles d) Any pair of alleles
10. The number of autosomes in man is
a) 22 pairs b) 11 pairs c) 43 pairs d) 23 pairs
11. The DNA sequence 3'-ATCCGATGAC-5' will produce which of the following mRNA
a) 5'-TAGGCTACTG-3' b) 3'- UAGGCUACUG-5'
c) 3'- TAGGCTACTG-5' d) 5'-UAGGCUACUG-3'
12. Which one of the following is not a prokaryotic character?
a) circular chromosome b) absence of double membrane bound organelle
c) absence of proteins d) flagella made up of microtubules
13. Which of the following is known as amphibians of the plant kingdom
a) Bryophyte b) Algae c) Pteridophyta d) Gymnosperms

14. Mycorrhiza is an example of symbiotic relationship between
a) Algae and fungi b) Fungi and higher plant c) Algae and higher plant
d) Bacteria and higher plant
15. Closed vascular bundles lack
a) Cambium b) Pith c) Ground tissue d) Conjunctive tissue
16. Blue green algae are mainly used as biofertilizers in the field of which crop?
a) Wheat b) Rice c) Maize d) Gram
17. Murein is found in the cell wall of
a) Diatoms b) *Spirogyra* c) Eubacteria d) *Chlamydomonas*
18. Photolysis of water during photosynthesis occurs in the
a) PS I b) Cytochrome b6f complex c) PS II d) ATP synthase complex
19. Malic acid is stored inside the vacuole during the
a) C3 cycle b) C2 cycle c) C4 pathway d) CAM pathway
20. Pollination is best defined as
a) Germination of pollen grains b) Visiting flowers by insects c) Transfer of pollen from anther to stigma d) Growth of pollen tube in ovule
21. “Central dogma” refers to
a) DNA rRNA Protein b) DNA mRNA Protein c) RNA Protein DNA d) DNA RNA Alcohol
22. The terminal electron acceptor in respiratory electron transport chain is
a) CO₂ b) H₂O c) Cu d) O₂
23. Which is not a monosaccharide
a) Glucose b) Fructose c) Maltose d) Galactose
24. Monadelphous stamen found in
a) *Hibiscus* b) *Solanum* c) *Helianthus* d) All of the above
25. Which among the following is a brown alga?
a) *Spirogyra* sp b) *Volvox* sp c) *Laminaria* sp d) *Polysiphonia* sp