

RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE, RAHARA, KOLKATA
Undergraduate Admission Test 2023: Botany Honours

Full Marks : 75

Time : 1 hour

1. Which of the following is known as amphibians of the plant kingdom
a) Bryophyte b) Algae c) Pteridophyta d) Gymnosperms
2. 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
3. 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'
4. Crossing over takes place during
a) Zygotene b) Pachytene c) Leptotene d) Diplotene
5. Which type of chlorophyll is present in all oxygenating photosynthetic organism?
a) Chlorophyll a b) Chlorophyll b c) Chlorophyll c
d) Chlorophyll d
6. Which is not monocotyledonous plant?
a) Banana b) Coconut c) Mango d) Rice
7. When transport across membranes occur against concentration gradient, it is called
a) Active transport b) Passive transport c) Facilitated diffusion
d) None of the above
8. 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
9. The number of autosomes in man is
a) 22 pairs b) 11 pairs c) 43 pairs d) 23 pairs
10. Genes are made up of:
a) Histones b) Lipoproteins c) Polynucleotides d) Hydrocarbons
11. Prokaryotic genetic system has
a) DNA but no histones b) Both DNA and histones
c) Neither DNA nor histones d) Either DNA or histones

12. SI unit of length is
a) miles b) meters c) yards d) feet
13. The frequency of a character in a population is found to be increasing when
a) It is dominant b) It is recessive c) It is adaptable d) It is inheritable
14. Closed vascular bundles lack
a) Cambium b) Pith c) Ground tissue d) Conjunctive tissue
15. Extranuclear DNA in eukaryotic cell is found in
a) Nucleus b) Mitochondria c) Ribosomes d) Endoplasmic Reticulum
16. Capitulum inflorescence is found in
a) Asteraceae b) Solanaceae c) Malvaceae d) Rosaceae
17. The end product of glycolysis in aerobic respiration is
a) Pyruvic acid b) Acetic acid c) Oxaloacetic acid d) Palmitic acid
18. Malic acid is stored inside the vacuole during the
a) C3 cycle b) C2 cycle c) C4 pathway d) CAM pathway
19. "Central dogma" refers to
a) DNA rRNA Protein b) DNA mRNA Protein
c) RNA Protein DNA d) DNA RNA Alcohol
20. The terminal electron acceptor in respiratory electron transport chain is
a) CO₂ b) H₂O c) Cu d) O₂
21. Which is not a monosaccharide
a) Glucose b) Fructose c) Maltose d) Galactose
22. The subunits of prokaryotic ribosomes are:
a) 60S + 40S b) 50S + 30S c) 60S + 30S d) 70S + 30S
23. Angiosperms differ from gymnosperms in having
a) Fruits b) Cotyledons c) Tracheids d) Leaves
24. Cyanobacteria is
a) Nitrogen fixing oxygenic photosynthetic organism b) Symbiotic mycorrhizae
c) Gram positive bacteria d) Saprophytic fungus
25. What is a chromatin?
a) RNA + Protein b) ss DNA + Protein
c) ds DNA + Histone Protein d) None of the above