

Time: 3hr

Subject: BIOLOGY

Max. Marks: 70

PART – A

I. Select the correct alternative from the choices given below

1x1 =15

1. -----controls the concentration of urine
a) ADH b) Oxytocin c) ACTH d) None of the above
2. Five kingdom classification was given by
a)Linnaus b)W.H whittekar c) copeland d) None of these
3. Bowman capsule is located in _____
a) cortex b) Henle's loop c)Bladder d) lungs
4. Who coined the term Mitochondria
a) Altman b) Benda c) de Duve d) C.Golgi
5. Which of the following phylum having flame cells?
a) paltyhelminthis b) Porifera c)Mollusca d) ctenophora
6. Yeast cell divides once in approximately every
a) 90 minutes b) 24 Hours c) 24 minutes d) 24 days
7. Dark bands are
a) A-band b) B-band c) I-band d) Z-band
8. Which of the following has no coelom?
a)Platyhelminthes b) Annelids c) Arthropods d) Molluscs
9. Which one of the following characteristic is shared by birds and mammals
a) Viviparity b) Warm blooded nature c) Ossified endoskeleton d) cold blooded nature
10. In which of the following segmentation in the body is first observed
a) Aschelminthes b)Arthropoda c)Annelida d) PLatyhelminthes
11. Ends of long bones are covered with
a) blood cells b) muscles c) cartilages d) ligaments
12. Fresh water sponge
a) Spongilla b) Euglena c) Aurelia d) Both a and b
13. FSH is secreted by
a) anterior lobe of pitutary b) gonads c) Thyroxine d) Hypothalamus
14. Cnidoblasts are present in which phylum
a) Porifera b) Protozoa c)Ctenophora d) Coelenterata
15. Comb plates are present in
a) Ctenophora b) Porifera c) Protozoa d) Mollusca

II. Choose the correct and fill in the blanks

1x 5 = 5

(Tympanum, Robert Brown , Theodor O. Diener , Chlorophyll a&b , Venation ,)

16. Viroids was discovered by _____
17. Arrangement of veins and veinlets on Lamina of leaf _____
18. Auditory organ in Amphibians is _____
19. The pigment present in Rhodophyceae _____
20. The nucleus discovered by _____

PART – B

III. Answer any FIVE of the following

2 X 5 =10

21. Differentiate between Chordates and Non – chordates?
22. Write the location ciliated epithelium and its function?
23. Classify kingdom mycota?

24. Write any two economic importance of algae?
25. Give an example for ammonotelic and Ureotelic animals?
26. "Lichens are good pollution indicators" Justify?
27. a) Define residual volume b) Total lung capacity
28. What is phyllotaxy? Mention the types of phyllotaxy?

PART – C

IV. Answer any FIVE of the following.

3X 5 = 15

29. Write the salient features of Bryophyta?
30. Draw a neat labelled diagram of TMV?
31. Difference between aerobic and anaerobic respiration?
32. Differentiate between Chlorophyceae and Rhodophyceae?
33. Explain the functions of plasma membrane?
34. Mention the four important functions of proteins?
35. Explain general characters of Aves and give 2 examples?
36. Write the differences between PSI and PSII?

PART –D

V. Answer any FOUR of the following.

5 X 3 = 15

37. Mention the taxonomic hierarchy of Wheat?
38. Draw a neat labelled diagram of digestive system of frog?
39. Explain how process of mitosis occurs with steps and diagram?
40. List out the general characters of Echinodermata?
41. Mention any two disorders of human excretion?
42. Sketch and label axon terminal and synapse. Describe nerve impulse?
43. Give a brief account of counter current mechanism in urine formation?
44. Explain and schematically represent Glycolysis?

VI. Answer any ONE of the following.

5 x 2 = 10

45. Write the general characters of Solanaceae?
46. List out the general characteristics of phylum Mammals?
47. What is placentation? Explain its types with the help of Diagram?

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