

**I.CHOOSE THE CORRECT ANSWER :****30X1=30**

1. Identify the incorrect statement about the Gram positive bacteria
 - a. Teichoic acid absent
 - b. High percentage of peptidoglycan is found in cell wall
 - c. Cell wall is single layered
 - d. Lipopolysaccharide is present in cell wall
2. Which of following represents gametophytic generation in pteridophytes?
 - a. Prothallus
 - b. Thallus
 - c. Cone
 - d. Rhizophore
3. Which of the following is the correct statement?
 - a. In *Pisum sativum* leaflets modified into tendrils
 - b. In *Atalantia* terminal bud is modified into thorns
 - c. In *Nepenthes* midrib is modified into lid
 - d. In *Smilax* inflorescence axis is modified into tendrils
4. Gynoecium with united carpels is termed as
 - a. Apocarpous
 - b. Multicarpellary
 - c. Syncarpous
 - d. None of the above
5. The taxonomy which involves the similarities and dissimilarities among the immune system of different taxa is termed as
 - a. Chemotaxonomy
 - b. Molecular systematic
 - c. Serotaxonomy
 - d. Numerical taxonomy
6. Sequences of which of the following is used to know the phylogeny.
 - a. mRNA
 - b. Rrna
 - c. tRNA
 - d. Hn RNA
7. Usually, the monocotyledons do not increase their girth, because
 - a. They possess actively dividing cambium
 - b. They do not possess actively dividing cambium
 - c. Ceases activity of cambium
 - d. All are correct
8. Which among the following is correct?
 - i. apoplast is fastest and operate in nonliving part
 - ii. Transmembrane route includes vacuole
 - iii. symplast interconnect the nearby cell through plasmadesmata
 - iv. symplast and transmembrane route are in living part of the cell
 - a. i and ii
 - b. ii and iii
 - c. iii and iv
 - d. i, ii, iii, iv
9. What type of transpiration is possible in the xerophyte *Opuntia*?
 - a. Stomatal
 - b. Lenticular
 - c. Cuticular
 - d. All the above
10. Which chlorophyll molecule does not have a phytol tail?
 - a. Chl- a
 - b. Chl- b
 - c. Chl- c
 - d. Chl- d
11. The compound which links glycolysis and Krebs cycle is
 - a. succinic acid
 - b. pyruvic acid
 - c. acetyl CoA
 - d. citric acid
12. Assertion (A): Oxidative phosphorylation takes place during the electron transport chain in mitochondria.
Reason (R): Succinyl CoA is phosphorylated into succinic acid by substrate phosphorylation.
13. _____ is the powerful growth inhibitor
 - a. Ethanol
 - b. Cytokinins
 - c. ABA
 - d. Auxin
14. Select the correctly matched one
 - A) Human urine i) Auxin -B
 - B) Corn gram oil ii) GA3
 - C) Fungus iii) Abscisic acid II
 - D) Herring fish iv) Kinitin sperm
 - E) Unripe maize v) Auxin A grains
 - F) Young cotton vi) Zeatin bolls
 - a) A-iii, B-iv, C-v, D-vi, E-i, F-ii,
 - b) A-v, B-i, C-ii, D-iv, E-vi, F-iii,

- c) A-iii, B-v, C-vi, D-i, E-ii, F-iv, d) A-ii, B-iii, C-v, D-vi, E-iv, F-i
15. Seed dormancy allows the plants to
 a. overcome unfavourable climatic conditions b. develop healthy seeds
 c. reduce viability d. prevent deterioration of seeds
16. Every unit of classification regardless of its rank is
 a. Taxon b. Variety c. Species d. Strain
17. Which of the following is not present in same rank?
 a. Primata b. Orthoptera c. Diptera d. Insecta
18. In *Pheretima* locomotion occurs with the help of
 a. circular muscles b. longitudinal muscles and setae
 c. circular, longitudinal muscles and setae d. parapodia
19. Which of the following have the highest number of species in nature?
 a. Insects b. Birds c. Angiosperms d. Fungi
20. What type of fibres are found in connective tissue matrix?
 a. Collagen b. Areolar c. Cartilage d. Tubular
21. The type of vision in Cockroach is
 a. Three dimensional b. Two dimensional c. Mosaic d. Cockroach do not have vision
22. How many abdominal segments are present in male and female Cockroaches?
 a. 10, 10 b. 9, 10 c. 8, 10 d. 9, 9
23. First step in digestion of fat is
 a. Emulsification b. Enzyme action c. Absorption by lacteals d. Storage in adipose tissue
24. The respiratory structures of insects are
 a. tracheal tubes b. gills c. green glands d. lungs
25. A person having both antigen A and antigen B on the surface of RBCs belongs to blood group
 a. A b. B c. AB d. O
26. Glomerular filtrate contains
 a. Blood without blood cells and proteins b. Plasma without sugar
 c. Blood with proteins but without cells d. Blood without urea
27. Knee joint is an example of
 a. saddle joint b. hinge joint c. pivot joint d. gliding joint
28. Name of the joint present between the atlas and axis is
 a. synovial joint b. pivot joint c. saddle joint d. hinge joint
29. The respiratory centre is present in the
 a. Medulla oblongata b. Hypothalamus c. Cerebellum d. Thalamus
30. Rearing of honey bee is called
 a. Sericulture b. Lac culture c. Vermiculture d. Apiculture

II. ANSWER THE FOLLOWING QUESTIONS :**10X2=20**

31. Write about the Properties of Water
32. Differentiate between the Primary metabolites and Secondary metabolites
33. Write about the Properties of Enzyme.
34. Differentiate between the DNA and RNA.
35. Write any three significance of mitosis.
36. Differentiate between mitosis and meiosis.
37. Given an account of G₀ phase.
38. Differentiate white adipose tissue from brown adipose tissue.
39. Why blood is considered as a typical connective tissue?
40. Differentiate between elastic fibres and elastic connective tissue.
41. Name the bones of the skull.
42. Which is the only jointless bone in human body?
43. How is tetany caused?