

BOTANY

I. CHOOSE THE CORRECT ANSWER

1. Which of the following process occurs in glycolysis?

- A. Oxidation B.Reduction C. Hydrogenation D. Fixation

2. In C₄ plants, CO₂ combines with PEP in the presence of

- A. PEP carboxylase B. RuBP carboxylase C. RuBP oxygenase D. Hydrogenase

3. All of the following are products of the Krebs cycle, except

- A. NADH B. FADH₂ C. ATP D. C₆H₁₂O₆

4. Which of the following cannot be grown on artificial culture medium?

- A. E.coli. B. TMV C. Aspergillus D. Saccharomyces.

5. Viroids differ from viruses in:

- A. Satellite RNA packed with viral genome B. Naked DNA molecules.
C. Naked RNA molecules only. D. Naked DNA packaged with viral genome.

6. Which is the correct sequence of the sexual cycle of fungi?

- A. Mitosis → Meiosis → Fertilization
B. Karyogamy → Plasmogamy → Meiosis.
C. Plasmogamy → Karyogamy → Meiosis.
D. Meiosis → Plasmogamy → Karyogamy.

7. Which one has the largest gametophyte

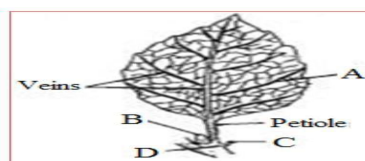
- A. Cycas B. Angiosperm C. Selaginella D. Moss/Polytrichum

8. Prothallus represents the ...

- A. Gametophytic phase in Pteridophytes B. Sporophytic phase of Pteridophytes
C. Sporophytic phase in Gymnosperms D. Sporophytic phase in Angiosperms

9. Which of the following option shows the correct labelling of the parts of leaf marked as

A, B, C and D.



- A. A - Lamina, B- Axillary bud, C- Stipule, D- Leaf base
B. A - Lamina, B- Stipule, C - Axillary bud, D- Leaf base
C. A - Lamina, B - Axillary bud, C - Stipule, D- Pedicel
D. A - Leaflet, B - Axillary bud, C - Stipule, D- Leaf base

10. An underground stem in which food is stored in bulblet is:

A. *Solanum tuberosum*. B. *Allium cepa*. C. *Allium sativum*. D. *Amorphophallous*.

11. Correct sequence of layers of bacterial cell envelope from outward to inward is

A. Cell wall → Glycocalyx → Cell membrane B. Cell membrane → Glycocalyx → Cell wall
C. Glycocalyx → Cell wall → Cell membrane D. Glycocalyx → Cell membrane → Cell wall.

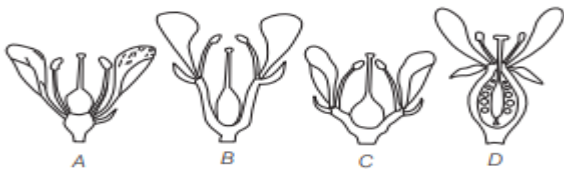
12. What is true about genetic material of a prokaryotic cell?

A. Lacks histones B. Not enveloped by nuclear membrane
C. Composed of a single circular DNA molecule D. All of these

13. The closing layers in a lenticels may show the deposition of

A. Cutin B. Pectin C. Lignin D. Suberin

14. On the basis of relative position of different floral parts on the thalamus, a flower can be hypogynous, perigynous or epigynous. With respect to the given figures (A B, , C and D), select the correct option. A B C D



A. hypogynous, epigynous, epigynous, perigynous.
B. hypogynous, perigynous, perigynous, epigynous
C. epigynous, hypogynous, perigynous, hypogynous.
D. epigynous, hypogynous, perigynous, perigynous.

15. Path of water movement from soil to xylem is

A. Metaxylem → Protoxylem → Protoxylem → Cortex → Soil → Root hair
B. Cortex → Root hair → Endodermis → Pericycles → Protoxylem → Metaxylem
C. Soil → Root hair → Cortex → Endodermis → Pericycle → Protoxylem → Metaxylem
D. Pericycle → Soil → Root hair → Cortex → Endodermis → Protoxylem → Metaxylem

16. Plant cell gets plasmolysed in a solution which is

A. Hypotonic B. Hypertonic C. Isotonic D. None of the above

17. The most famous pesticide of the world is

A. Methyl isocyanate B. DDT C. Gammexane D. Malathion

18. Bio-indicators are used for

A. Oxygen demand B. Air pollution C. Mineral present D. All of the above

19. Gases referred to as 'green house gases' are

A. CO₂, O₂, NO₂, NH₃ B. Chlorofluoro carbon, CO₂, NH₃, N₂
C. CH₄, N₂, CO₂, NH₃ D. Chlorofluoro carbon, CO₂, CH₄, NO₂

20. Pyramid of energy in a pond ecosystem is always

- A. Inverted B. Upright C. Irregular D. Linear

21. Good ozone is found in

- A. Atmosphere B. Biosphere C. Stratosphere D. Ozonosphere

22. The total solar energy converted to biomass on earth amounts to

- A. 2% B. 0.2% C. 0.02% D. 20%

23. In which of the following cycles, does the reservoir of the nutrient exist in material from?

- A. Carbon cycle B. Phosphorous cycle C. Nitrogen cycle D. Water cycle

24. In Cycas, pollination takes place in

- A. 3-celled stage B. 4-celled stage C. 2-celled stage D. 1-celled stage

25. Exine of pollen is composed of?

- A. Pectocellulose B. Lignocellulose C. Sporopollenin D. Pollenkitt

26. Non-albuminous seed is produced in?

- A. Maize B. Castor C. Wheat D. Pea

27. Which light is most effective in seed germination?

- A. Green B. Farred C. Red D. Blue

28. The transfer of pollen grain from the stamen to the stigma of the same flower is

- A. Autogamy B. Allogamy C. Geitonogamy D. Xerogamy

29. Male gametophyte of angiosperms/ monocots is

- A. Microsporangium B. Nucellus C. Microspore D. Stamen

30. When bark is cut from stem, which of the following vascular tissue is removed?

- A. Xylem B. Phloem C. Parenchyma D. All of the above

ANSWER KEY:

1-A 2-A 3-D 4-B 5-C 6-C 7-D 8-A 9-A 10-C 11-C 12-D
13-D 14-B 15-C 16-B 17-B 18-D 19-D 20-C 21-C 22-A 23-B 24-A
25-C 26-D 27-C 28-A 29-C 30-B