

Class: 11
Subject: Biology
Topic: ASK15M11UT05
No. of Questions: 30

Q1. Which one of the following is wrong in relation to photorespiration:

- (a) It is a characteristic of C_4 plants
- (b) It is a characteristic of C_3 plants
- (c) It occurs in daytime only
- (d) It occurs in chloroplasts

Sol. (a)

Q2. Best defined function of Manganese in green plants is

- (a) Photolysis of water
- (b) Water absorption
- (c) Nitrogen fixation
- (d) Calvin cycle

Sol. (a)

Q3. The enzyme responsible for primary carboxylation in C_3 plants is

- (a) Pyruvate carboxylase
- (b) Succinic dehydrogenase
- (c) Hexokinase
- (d) RuBP carboxylase oxygenase

Sol. (d)

Q4. In C_3 plants, the first stable compound formed after CO_2 fixation is

- (a) Oxaloacetic acid
- (b) Malic acid
- (c) Phosphoglyceraldehyde
- (d) 3-phosphoglycerate

Sol. (d)

- Q5. Chemiosmosis hypothesis given by Peter Mitchel proposes the mechanism of
- (a) synthesis of NADH
 - (b) synthesis of ATP
 - (c) synthesis of FADH₂
 - (d) synthesis of NADPH

Sol. (b)

- Q6. The ratio between 2-carbon and 3-carbon intermediates having —NH₂ group formed in photosynthetic oxidation cycle is:
- (a) 1 : 1
 - (b) 2 : 1
 - (c) 3 : 2
 - (d) 3 : 4

Sol. (b)

- Q7. In sugarcane plant, 14CO₂ is fixed in malic acid, in which the enzyme that fixes CO₂ is:
- (a) Ribulose phosphate kinase
 - (b) Phosphoenolpyruvic acid carboxylase
 - (c) Ribulose biphosphate carboxylase
 - (d) Fructose phosphatase

Sol. (b)

- Q8. In higher plants, continuity of cytoplasm from one cell to its neighbouring cells is established through
- (a) Apoplast
 - (b) Chloroplast
 - (c) Leucoplast
 - (d) Symplast

Sol. (d)

- Q9. In CAM plants, CO₂ required for photosynthesis enters the plant body during
- (a) Daytime through the lenticels
 - (b) Night when the hydathodes are open
 - (c) Daytime when the stomata are open
 - (d) Night through the stomata which are kept open

Sol. (d)

- Q10. In a CAM plant the concentration of organic acid
- (a) increases during the day
 - (b) decreases or increases during the day
 - (c) increases during night
 - (d) decreases during any time

Sol. (c)

- Q11. In respiration energy not converted in ATP is
- (a) Liberated along with CO₂
 - (b) Converted into heat
 - (c) Transferred to organic compounds
 - (d) Transferred to water

Sol. (b)

- Q12. One gram mole of glucose on complete oxidation to CO₂ and H₂O produces about
- (a) 686,000 cal
 - (b) 6,860 cal
 - (c) 6,860,000 cal
 - (d) 68,600 cal

Sol. (a)

- Q13. In respiration, pyruvic acid is
- (a) Formed only when the cell is with mitochondria
 - (b) Formed only when oxygen is available
 - (c) Formed only when cell is performing aerobic respiration
 - (d) Commonly formed as intermediate product of aerobic and anaerobic respiration

Sol. (d)

- Q14. What ultimately occurs during respiration is
- (a) Synthesis of ATP
 - (b) Electron transport
 - (c) break down of ATP
 - (d) capture of solar energy

Sol. (a)

- Q15. Number of steps involved in release of CO₂ during Kreb's cycle are
- (a) 1
 - (b) 2
 - (c) 6
 - (d) 12

Sol. (b)

- Q16. RQ is
- (a) C/N
 - (b) CO₂/O₂
 - (c) O₂/CO₂
 - (d) N/C

Sol. (b)

- Q17. Mitochondria do not occur in
- (a) Ferns
 - (b) Bacteria
 - (c) Green algae
 - (d) Brown algae

Sol. (b)

- Q18. Mitochondrial component connected with ATP synthesis
- (a) Inner membrane
 - (b) Outer membrane
 - (c) Matrix
 - (d) F₀ – F₁ particles

Sol. (d)

- Q19. Inner membrane involutions of a mitochondria are called
- (a) Lamellae
 - (b) Cristae mitochondriales
 - (c) Thylakoid
 - (d) Tubules

Sol. (b)

- Q20. Mitochondrial criste are sites of
- (a) Kreb's cycle
 - (b) Oxidation reduction reaction
 - (c) Protein synthesis
 - (d) Lipid synthesis

Sol. (b)

- Q21. The phase of growth which is the first phase and represents lag phase of growth curve is
- (a) Formative phase
 - (b) Cell enlargement phase
 - (c) Maturation phase
 - (d) Stationery phase

Sol. (a)

- Q22. The lateral meristem in plant is reponsible for
- (a) Primary growth
 - (b) Secondary growth
 - (c) Exponential growth
 - (d) Growht in elongation

Sol. (b)

- Q23. Plant growth can be measured by
- (a) Horizontal microscope
 - (b) Crescograph
 - (c) Auxanometer
 - (d) All the above

Sol. (d)

- Q24. Auxins were first isolated from the plants by
- (a) Darwin
 - (b) F.W.Went
 - (c) Boysen-Jensen
 - (d) Sachs

Sol. (b)

- Q25. Apical dominance is due to
- (a) Abcistic acid
 - (b) Gibberelic acid
 - (c) Auxin
 - (d) Cytokinin

Sol. (c)

- Q26. Hormone related with cell divisions is
- (a) NAA
 - (b) IAA
 - (c) Cytokinin
 - (d) GA3

Sol. (c)

- Q27. Which of the following hormone is mainly concerned with root Initiation?
- (a) Kinetin
 - (b) GA3
 - (c) IAA
 - (d) ABA

Sol. (c)

- Q28. Primary precursor of IAA is
- (a) Methionine
 - (b) Adenine
 - (c) Tryptophan
 - (d) Alanine

Sol. (c)

- Q29. Avena-Curvature bioassay was conducted by
- (a) Went
 - (b) Pal
 - (c) Darwin
 - (d) Boysen-Jenson

Sol. (a)

- Q30. Which one of the following groups comprises synthetic auxin?
- (a) 2, 4-D; 2, 4, 5, -T and Zeatin
 - (b) Gibberellic acid, ABA, IAA
 - (c) 2, 4-D, 2, 4, 5 – T and NAA
 - (d) Cytokinin, IAA, IBA

Sol. (c)