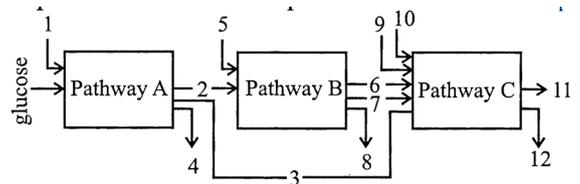


BIOLOGY



Arrows numbered 4, 8 and 12 can all be

- (1) ATP
- (2) H₂O
- (3) FAD or FADH₂
- (4) NADH

66. The energy-releasing metabolic process in which substrate is oxidised without an external electron acceptor is called:

- (1) Glycolysis
- (2) fermentation
- (3) aerobic respiration
- (4) photorespiration

67. What is the site of perception of photoperiod necessary for induction of flowering in plants?

- (1) Lateral buds
- (2) Pulvinus
- (3) Shoot apex
- (4) Leaves

68. It takes very long time for pineapple plants to produce flowers. Which combination of hormones can be applied to artificially induce flowering in pineapple plants throughout the year to increase yield?

- (1) Auxin and Ethylene
- (2) Gibberellin and Cytokinin
- (3) Gibberellin and Abscisic acid
- (4) Cytokinin and Abscisic acid

69. Fruit and leaf drop at early stages can be prevented by the application of:

- (1) Ethylene
- (2) Auxins
- (3) Gibberellic acid
- (4) Cytokinins

70. The *Avena* curvature is used for bioassay of:

- (1) ABA
- (2) GA₃
- (3) IAA
- (4) Ethylene

61. Which of these statements is incorrect?

- (1) Enzymes of TCA cycle are present in mitochondrial matrix.
- (2) Glycolysis occurs in cytosol.
- (3) Oxidative phosphorylation takes place in outer mitochondrial membrane.
- (4) Glycolysis operates as long as it is supplied with NAD that can pick up hydrogen atoms.

62. Which statement is wrong for Krebs cycle?

- (1) There is one point in the cycle where FAD⁺ is reduced to FADH₂.
- (2) During conversion of succinyl CoA to succinic acid, a molecule of GTP is synthesised.
- (3) The cycle starts with condensation of acetyl group (acetyl CoA) with pyruvic acid to yield citric acid.
- (4) There are three points in the cycle where NAD is reduced to NADH + H⁺.

63. In which one of the following processes CO₂ is not released?

- (1) Aerobic respiration in plants
- (2) Aerobic respiration in animals
- (3) Alcoholic fermentation
- (4) Lactate fermentation

64. Which of the metabolites is common to respiration mediated breakdown of fats, carbohydrates and proteins?

- (1) Fructose 1,6-bisphosphate
- (2) Pyruvic acid
- (3) Acetyl CoA
- (4) Glucose-6-phosphate

65. The three boxes in this diagram represent the three major biosynthetic pathways in aerobic respiration. Arrows represent net reactants or products.