DPP
DAILY PRACTICE PROBLEMS

Class : XIth **Subject : BIOLOGY**
Date : **DPP No. : 9**

Topic :- Respiration in Plants

1. Respiratory quotient can very due to
   a) Temperature b) Respiratory substrate
   c) Light and oxygen d) Respiratory product

2. In anaerobic respiration the correct sequence of catabolism of glucose is
   a) Glycolysis, TCA cycle, oxidative phosphorylation
   b) Glycolysis, fermentation
   c) Glycolysis, oxidative phosphorylation, TCA cycle
   d) Oxidative phosphorylation, TCA cycle, glycolysis

3. In eukaryotes, photosynthesis occurs in
   a) Chloroplast b) Stomatal opening c) Bark d) Roots

4. In yeast during anaerobic respiration, how many glucose molecules are required for production of 38 ATP molecules?
   a) 1 b) 2 c) 19 d) 38

5. Which of the following is involved in the catalysis of link reaction during aerobic during aerobic respiration?
   a) Vitamin- A b) Vitamin- B_1 c) Vitamin- B_6 d) Vitamin- K

6. Respiratory quotient in anaerobic respiration is
   a) 0.7 b) 0.9 c) Unity d) Infinity

7. Choose the correct combination of A and B in accordance with the NCERT text book.
   The NADH synthesised in ...A... is transferred into the mitochondria and undergoes oxidative ...B...
   a) A-EMP; B-carboxylation b) A-ETS; B-phosphorylation
   c) A-glycolysis; B-phosphorylation d) A-TCA cycle; B-decarboxylation

8. Total gain of ATP molecules during aerobic respiration of one molecule of glucose
   a) 36 b) 38 c) 40 d) 34

9. Which of the following enzyme is responsible for formation of glucose from glucose-6-phosphate?
   a) Kinase b) Aldolase c) Dehydrogenase d) Phosphatase

10. Alcoholic fermentation takes place in the presence of
    a) Maltase b) Zymase c) Amylase d) Invertase

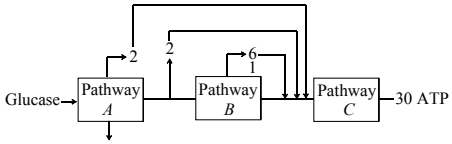
11. Which of these steps in Krebs' cycle indicates substrate level phosphorylation?
    a) Conversion of succinyl acid to $\propto$-ketoglutaric acid
    b) Conversion of succinic acid to malic acid
    c) Conversion of succinyl Co-A to succinic acid
    d) Conversion of malic acid to oxalo acetic acid

12. Identify *A* and *B* in the given reaction
    Pyruvic acid
    $$+\text{Co-A} + \text{NAD}^+ \xrightarrow[\text{Pyruvate dehydrogenase}]{\text{Mg}^{2+}} \text{A} + \text{B} + \text{NADH} + \text{H}^+$$
    a) A-PEP; B-CO_2 b) A-Acetyl Co-A; B-CO_2
    c) A-CO_2; B-H_2O d) A-Acetyl Co-A; B-H_2O

13. In which one of the following reactions, oxidative Decarboxylation does not occur?
    a) Malic acid → Pyruvic acid b) Pyruvic acid → Acetyl Co-A
    c) Glyceraldehyde 3-phosphate → 1, 3-bisphosphoglycolysis acid d) α-ketoglutaric acid → Succinyl Co-A

14. Anaerobic respiration can occur
    a) Lower organism b) Higher plants and animals
    c) Both (a) and (b) d) None of the above

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



    The numbered 2, 2, 6 can all be
    a) NADH b) ATP c) H_2O d) FAD^2 or $FADH_2$

16. The main purpose of electron transport chain is to
    a) Cycle NADH + H^+ back to NAD^+ b) Use the intermediate from TCA cycle
    c) Breakdown pyruvic acid d) All of the above

17. How many ATP are formed during the citric acid cycle?
    a) 12 b) 24 c) 32 d) 35

18. RQ is always less than one in
    a) Wheat b) Millets c) Bean d) Castor

19. In glycolysis from glucose to pyruvic acid involves more than seven reaction. Each individual reaction needs
    a) One molecule of ATP
    b) One molecule of ADP
    c) One molecule of NAD
    d) One molecule of specific enzyme

20. Which one is true for ATP?
    a) ATP is prosthetic part of an enzyme
    b) ATP is an enzyme
    c) ATP is organic ions of enzyme
    d) ATP is a coenzyme