



# BIOLOGY

## BOOKS - VIKRAM PUBLICATION ( ANDHRA PUBLICATION)

### RESPIRATION IN PLANTS

#### Very Short Answer Questions

1. Different substrates get oxidised during respiration. How does respiratory quotient

(RQ). indicate which type of substrate (i.e) carbohydrate, fat or protein is getting oxidised ?

$RQ = A/B$ . What do A & B stand for ?

What type of substrates have RQ of 1, < 1, > 1 ?



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2. Energy formed at  $F_1$  particle is obtained from



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3. What is anaerobic respiration ?



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4. What are the end products of Aerobic and Anaerobic Respirations?



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5. What cellular organic substances are never used as respiratory substrates ?



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6. Higher respiratory quotient is in which among the following?



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7. What is meant by Amphibolic pathway ?



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8. In mitochondria, electron transport occurs in the



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9. What are the end products of aerobic respiration ?



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**10.** Main source of ATP in a cell is by oxidative phosphorylation is



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## Short Answer Questions

**1.** Why does respiration considered as an exothermic reaction ? Explain.



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2. Write about two ATP yielding reactions of glycolysis.



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3. What is the net gain of ATP molecules in Glucolysis ?



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4. Define RQ. Write a short note on RQ.



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5. Fermentation is



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6. The correct sequence of electron carriers (Cytochromes) in Respiratory electron transport system is



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7. The end product of oxidative phosphorylation is



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## Long Answer Questions

1. What are the end products of Aerobic and Anaerobic Respirations?



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## 2. In Krebs cycle



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### Important Questions

1. Different substrates get oxidised during respiration. How does respiratory quotient (RQ). indicate which type of substrate (i.e) carbohydrate, fat or protein is getting oxidised ?

$RQ = A/B$ . What do A & B stand for ?

What type of substrates have RQ of 1, < 1, > 1?



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2. Higher respiratory quotient is in which among the following?



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4. Write about two ATP yielding reactions of glycolysis.



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5. The net gain of ATP for the complete aerobic oxidation of glucose is 36. Explain.



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6. What are the end products of aerobic respiration ?



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7. In Krebs cycle



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**Exercises**

1. Distinguish between Respiration and Combustion



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2. Instant source of energy/most common respiratory substrate is



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3. Give the schematic representation of glycolysis.



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4. What are the end products of aerobic respiration ?



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5. Give the schematic representation of an overall view of Krebs cycle.



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6. Explain ETS.



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7. Distinguish between Aerobic and Anaerobic respiration





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**8. One of the following is not true about ATP**



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**9. What is meant by Amphibolic pathway ?**



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**10.** Higher respiratory quotient is in which among the following?



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**11.** Main source of ATP in a cell is by oxidative phosphorylation is



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**12.** What is respiration ?



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**13.** Find the correct-ascending sequence of the following, on the basis of energy released in respiratory oxidation.

- a) 1 gm of fat
- b) 1 gm of protein
- c) 1 gm of glucose
- d) 0.5 gm of protein + 0.5 gm of glucose



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**14.** Glycolysis occurs in



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**15.** If a person is feeling, dizzy, glucose or fruit juice is given immediately but not a cheese sandwich, which- might have more energy. Why ?



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**16.** If a person is feeling, dizzy, glucose or fruit juice is given immediately but not a cheese sandwich, which- might have more energy. Why ?



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**17.** It is known that red muscle fibres in animals can work for longer periods of time continuously. How is this possible ?



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