

Name: \_\_\_\_\_

**Q.1**

Cellular respiration may occur in one stage or two stages.

- (a) Give
- two**
- differences, other than location, between Stage 1 and Stage 2.

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

- (b) Where in a cell does Stage 1 occur?

\_\_\_\_\_

- (c) What term is used to describe respiration in which only Stage 1 occurs?

\_\_\_\_\_

- (d) Name a chemical end product of the type of respiration referred to in (c).

\_\_\_\_\_

- (e) In Stage 2 of respiration electrons pass along an electron transport chain, releasing energy. In what molecule is this energy stored in the cell?

\_\_\_\_\_

- (f) To what are these electrons transferred at the end of the electron transport chain?

\_\_\_\_\_

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**Q.2**Write a brief note on **each** of the following items in relation to respiration.

- (i) Glycolysis.
- (ii) Acetyl Co-enzyme A.
- (iii) Adenosine triphosphate.
- (iv) Electron transport chain.

(24)

**Q.3**

Answer the following questions in relation to an investigation you carried out into fermentation by yeast cells.

- (i) Explain what is meant by *anaerobic respiration*.
- (ii) Where in the cell does anaerobic respiration occur?
- (iii) Describe, with the aid of a diagram, how you kept the yeast under anaerobic conditions during the investigation.
- (iv) Name the **two** substances produced by the yeast in the process of fermentation.
- (v) How did you know that fermentation had ceased?

(24)