

# MT

2017 \_\_\_ \_\_\_ 1100

Seat No. 

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**MT - SCIENCE & TECHNOLOGY - II (72) - SEMI PRELIM - II : PAPER - 6**

**Time : 2 Hours**

**(Pages 3)**

**Max. Marks : 40**

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**Note :**

- (i) All questions are compulsory.
- (ii) All questions carry equal marks.
- (iii) Draw neat and labelled diagrams wherever necessary.

**Q.1. (A) Fill in the blanks: 3**

- (1) In some plants, waste is in the form of calcium oxalate crystals called as .....
- (2) ..... refers to the systematic regulation of various activities.
- (3) The unused sugar is stored as ..... in the liver.

**Q.1. (B) State whether the following statements are true or false 2  
and if false, write the correct statement:**

- (1) When pyruvate is broken down aerobically 38 ATP molecules are formed.
- (2) The pull due to transpiration helps in absorption and movement of water in tall trees.

**Q.2. Rewrite the following statements by selecting the correct alternative: 5**

- (1) Leaf is boiled in alcohol kept in a water bath because .....
  - (a) alcohol is bad for leaf
  - (b) alcohol is volatile
  - (c) alcohol catches fire on heating directly
  - (d) alcohol leaves fumes

- (2) Fermentation is a type of ..... .  
(a) aerobic respiration                      (b) anaerobic respiration  
(c) exothermic reaction                      (d) none of these
- (3) ..... is a plant hormone which is responsible for wilting of leaves.  
(a) Auxin    (b) Abscissic acid  
(c) Gibberellins                                      (d) Cytokinins
- (4) In the experiment to demonstrate occurrence of respiration in germinating seeds? Why is some KOH placed in a small test tube in the flask with germinating seeds?  
(a) To provide Oxygen required by the seeds for respiration  
(b) To absorb CO<sub>2</sub> and create partial vacuum in the flask  
(c) To absorb water from the seeds to make them dry  
(d) To make the air present in the flask alkaline
- (5) ..... protects the inner lining of stomach from hydrochloric acid.  
(a) Pepsin    (b) Salivary amylase  
(c) Bile    (d) Mucus

**Q.3. Answer the following in short : (Any 5)**

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- (1) Give scientific reason:  
Insulin plays an important role in controlling the sugar level of blood.
- (2) Give examples of growth independent movements in plants.
- (3) Draw neat and labelled diagrams of Human brain.
- (4) What are the reasons for depletion of biological resources?
- (5) Distinguish between Aerobic respiration and Anaerobic respiration.
- (6) Explain the process of digestion of food in the mouth.
- (7) Write short note on Autotrophic nutrition.

**Q.4. Answer the following in brief : (Any 5)**

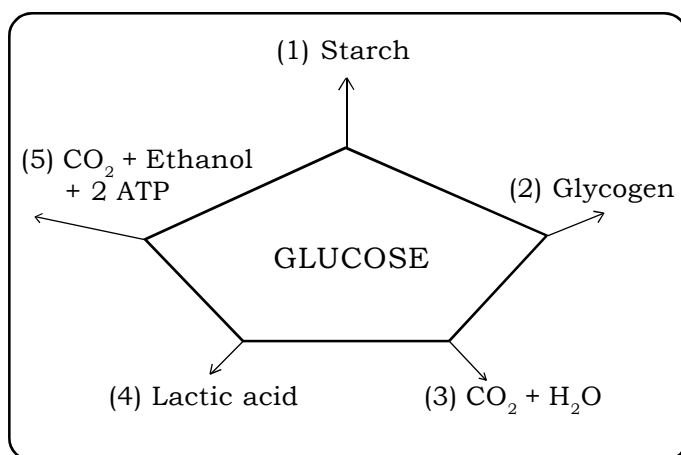
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- (1) Describe Lymph.
- (2) Explain the process of translocation in plants.
- (3) How is food digested in the stomach?
- (4) How do plants get rid of their excretory products?
- (5) Describe the structure of central nervous system in human beings.
- (6) Describe Reflex action.
- (7) Write the salient features of The Biomedical Waste Rules.

**Q.5. Answer in detail: (Any 1)**

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- (1) Describe the structure of the heart with the help of a diagram.
- (2) Given below are the end products of different reactions involving glucose. Write the reaction number in front of the following:



- (a) Anaerobic reaction .....
- (b) Reaction in human muscles .....
- (c) Aerobic respiration .....
- (d) Reaction in plant cell .....
- (e) Reaction in Liver .....

*Best Of Luck* 🍀