

# MT

2017 \_\_ \_\_ 1100

Seat No. 

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**MT - SCIENCE & TECHNOLOGY - II (72) - SEMI PRELIM - II : PAPER - 1**

**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) ..... artery takes blood to the lungs for oxygenation.
- (2) Response to the stimulus of touch is called ..... whereas response to the stimulus of chemicals is called as .....
- (3) ..... means the creation of goods and services using fewer resources and creating less waste.

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

- (1) Carbohydrates are the body building nutrients.
- (2) When light falls on growing plants, the hormone auxin is synthesized at the tip of the root.

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

- (1) To observe stomata in dicot leaf we must prepare a slide by taking .....
  - (a) a crushed leaf
  - (b) upper epidermis of leaf
  - (c) a lower epidermis of leaf
  - (d) a central part of leaf

- (2) Which of the following is not essential for photosynthesis ..... .  
(a) oxygen (b) carbon dioxide  
(c) light (d) chlorophyll
- (3) 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.
- (4) The movement of the plant in response to the stimulus of light is called ..... movement.  
(a) gravitropic (b) hydrotropic  
(c) phototropic (d) chemotropic
- (5) When a student observed a stomatal epidermal peel of a leaf under microscope, it appeared pinkish red in colour. The stain used was ..... .  
(a) iodine (b) acetocarmine  
(c) safranin (d) eosin

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

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- (1) Give scientific reason : Translocation is needed in all higher plants.  
(2) What are neurons and how are they classified? Also state their functions.  
(3) Give examples of growth independent movements in plants.  
(4) How are fats digested in the human body?  
(5) What is meant by Consumerism? How does it affect sustainable development?  
(6) Draw neat and labelled diagram of Human excretory system.  
(7) Draw neat and labelled diagram of Structure of nephron.

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

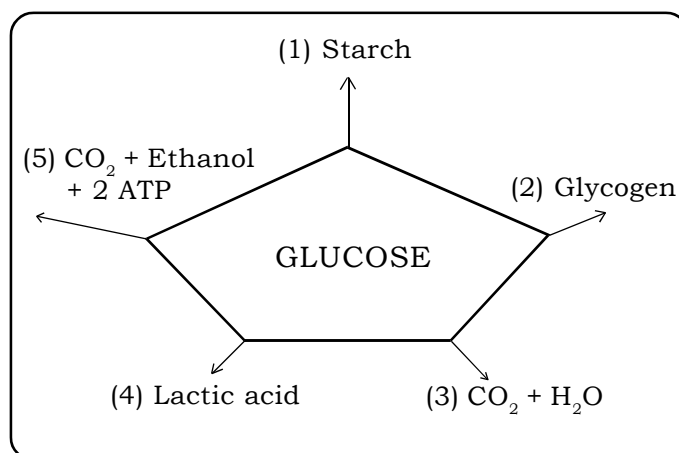
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- (1) What is the three 'R mantra'? Write its significance.
- (2) Write a note on Lymph.
- (3) Explain the process of digestion of food in the mouth.
- (4) Describe Reflex action.
- (5) Mention the functions of the forebrain.
- (6) How do plants get rid of their excretory products?
- (7) What is respiration ? What are its types ?

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

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- (1) 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 .....
- (2) What is tropic movement? Describe the different types of tropic movements.

*Best Of Luck* 🍀