

# MT

2018 \_\_\_ 1100

Seat No. 

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

**Time : 2 Hours**

**(Pages 3)**

**Max. Marks : 40**

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) Harmful bacteria like ..... in the intestine are destroyed due to probiotics.
- (2) Methods like artificial insemination and embryo transplant are mainly used for .....
- (3) Laughter club is a remedy to drive away .....

**Q.1. (B) Match the columns:** **2**

Column A	Column B
(1) Xylitol	(a) Pigment
(2) Citric acid	(b) To impart sweetness
(3) Lycopene	(c) Microbial restrictor
(4) Nycin	(d) Protein binding emulsifier
	(e) To impart acidity

**Q.1. (C) Choose the correct alternative and rewrite the statement :** **5**

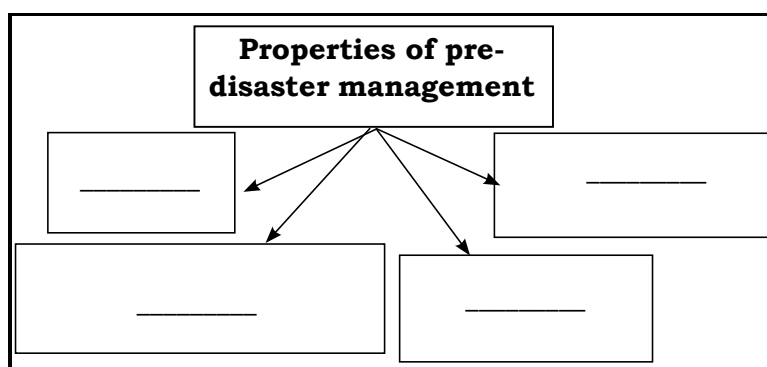
- (1) Substance prepared by using yeast is .....
  - (a) bread
  - (b) honey
  - (c) butter
  - (d) yoghurt
- (2) Cattle feeding on transgenic ..... does not contract a viral disease-rinderpest.
  - (a) potato
  - (b) onion
  - (c) tobacco
  - (d) tomato

- (3) Which of following mentioned factors are important for good social health?  
 (a) strong personality      (b) having large number of friends  
 (c) trust in others          (d) all of the above
- (4) The chairman of village level committee is .....  
 (a) Sarpanch                      (b) Chief Minister  
 (c) Collector                      (d) Prime Minister
- (5) Each nuclear fission of uranium nucleus release ..... energy.  
 (a) 20 MeV                        (b) 236 MeV  
 (c) 237 MeV                      (d) 200 MeV

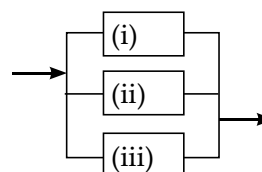
**Q.2. Answer the following questions : (Any Five)**

**10**

- (1) Complete the following chart with reference to pre-disaster management.

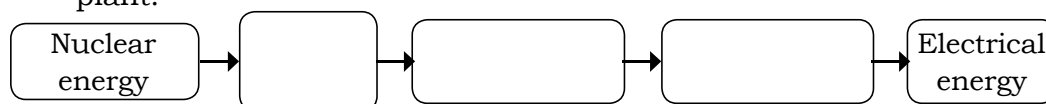


- (2) What will you do and why if your friend has developed the habit of snapping selfies ?
- (3) What is DNA fingerprinting ?
- (4) Why some of the organs in human body are most valuable ?
- (5) How the bread and other products produced using baker's yeast are nutritious ?
- (6) In the diagram silicon solar cells with dimensions  $1\text{cm}^2$  are connected. Find the potential difference and electric current?



**Q.3. Answer the following questions : (Any Five)****15**

- (1) Which are the reasons for increasing the popularity of probiotic products?
- (2) Write a note on organ transplantation?
- (3) What type of changes occurs in a home having chronically ill old person? How will you help to maintain good atmosphere ?
- (4) Explain - Effective disaster management makes us well prepared for future.
- (5) Write the symptoms, effects and remedial measures for landslide.
- (6) Complete the following step by step Energy conversion in nuclear power plant.

**Q.4. Answer the following questions : (Any One)****5**

- (1) Write a comparative note on usefulness and harmfulness of biotechnology.
- (2) Read the paragraph and answer the following questions:

In cities sewage needs to be carried to processing unit and acted upon by microbial process. Microbes which can decompose any compound as well as destroy the pathogens of cholera, typhoid are mixed with sewage. They release methane and carbon dioxide by decomposition of the carbon compounds present in sewage. Phenol oxidising bacteria decompose the xenobiotic chemicals present in sewage.

- (1) Where is sewage in cities disposed off?
- (2) Which disease pathogens are destroyed by microbes?
- (3) Which gases are released by decomposition of carbon compounds?
- (4) What is the role of phenol oxidising bacteria?
- (5) Give a heading to the paragraph.

**Best Of Luck** 🍀