

# MT

2018 \_\_\_ \_\_\_ 1100

Seat No. 

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

**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) Bacteria used to clear oil spills are called .....
- (2) Cells of the embryo undergo repeated ..... division.
- (3) ..... is used in the treatment of viral diseases.

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

Column 'A'	Column 'B'
(1) Tahsildar	(a) District disaster management
(2) Prime Minister	(b) Village level committee
(3) Sarpanch	(c) State disaster management
(4) Collector	(d) National disaster management
	(e) Taluka disaster management

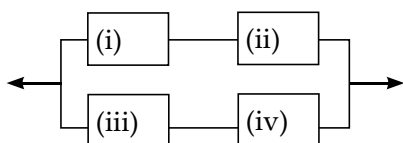
**Q.1. (C) Choose the correct alternative and rewrite the statement :** **5**

- (1) In 2014 there had been a huge ..... in the village Malin.
  - (a) Cyclone
  - (b) Volcano eruption
  - (c) Landslide
  - (d) Bomb blast
- (2) ..... bacteria present in root nodules of leguminous plants help in nitrogen fixation.
  - (a) Rhizobium
  - (b) Azotobacter
  - (c) Geobacter
  - (d) Pseudomonas

- (3) Yeast reproduces by ..... method of asexual reproduction.  
 (a) spores (b) budding  
 (c) binary fission (d) vegetative reproduction
- (4) Stem cell preserved in sterile vials are kept in liquid nitrogen at ..... to .....  
 (a)  $-135^{\circ}\text{C}$  to  $-190^{\circ}\text{C}$  (b)  $-125^{\circ}\text{C}$  to  $-150^{\circ}\text{C}$   
 (c)  $135^{\circ}\text{C}$  to  $190^{\circ}\text{C}$  (d)  $133^{\circ}\text{C}$  to  $187^{\circ}\text{C}$
- (5) The photovoltaic cells convert ..... energy into electrical energy.  
 (a) mechanical (b) solar  
 (c) chemical (d) sound

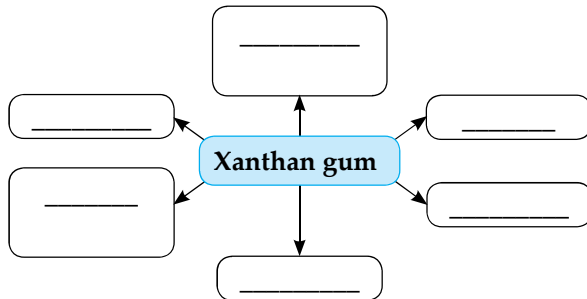
**Q.2. Answer the following questions : (Any Five)****10**

- (1) Write a note on Sewage management.
- (2) Give reason :  
Use of mutant strains has been increased in industrial microbiology.
- (3) Explain the importance of fruit processing in human life.
- (4) Give examples of each:  
 (a) Physical problems arising due to excessive use of mobile phones.  
 (b) Activities under the jurisdiction of cyber crime laws.
- (5) What are the objectives of disaster management?
- (6) In the diagram below, silicon solar cells with dimensions  $1\text{cm}^2$  are connected. Find the potential difference and electric current?

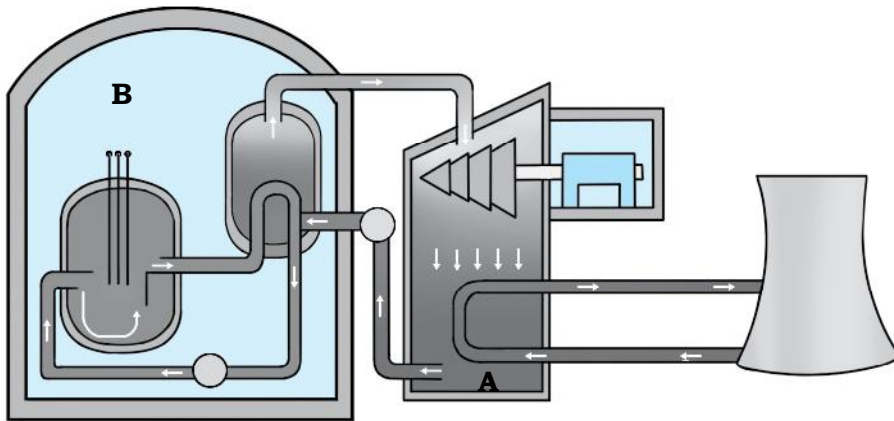
**Q.3. Answer the following questions : (Any Five)****15**

- (1) Explain nature and scope of disaster Management?
- (2) Why is the essential to get training of first aid?
- (3) Write a note on Genetically modified crops.

- (4) Complete the following conceptual picture with respect to uses.



- (5) How is vinegar produced?  
 (6) Answer the questions based on figure.



- (i) Label A and B in the diagram.  
 (ii) Define nuclear fission.  
 (iii) State any one problem related to nuclear power plant.

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

**5**

- (1) Write a comparative note on usefulness and harmfulness of biotechnology.  
 (2) Give the reasons for increase in human disasters after the World War - II.

**Best Of Luck** 🍀