

Q.P. SET CODE
D

MT - Z

Seat No.

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2017 ___ ___ 1100 - **MT - Z** - SCIENCE & TECHNOLOGY - II (72) - SET - D (E)**Time : 2 Hours****(Pages 3)****Max. Marks : 40**

Note :

- (i) Draw well-labelled diagrams wherever necessary.
- (ii) All questions are compulsory.
- (iii) Students should write the answers of questions in sequence.

Q.1. (A) Answer the following sub-questions :**3****(1) Fill in the blanks and rewrite the complete statements :**

- (i) The organic compounds having double or triple bond in them are termed as
- (ii) The artery takes blood to the lungs for oxygenation.
- (iii) The loss of water from plants is known as

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

- (i) The daughter cells produced by asexual reproduction are genetically identical to the parent cell.
- (ii) In sexual mode of reproduction, greater diversities are generated.

Q.1. (B) Rewrite the following statements by selecting the correct options :**5**

- (1) What is the formula of ethanoic acid ?
 - (a) HCOOH
 - (b) CH₃COOH
 - (c) C₂H₅COOH
 - (d) C₃H₇COOH

- (2) Which of the following is a mode of asexual reproduction?
 - (a) Fission
 - (b) Budding
 - (c) Spore formation
 - (d) All of these

- (3) In Hydra the type of reproduction is
(a) Binary fission (b) Budding
(c) Multiple fission (d) None of these
- (4) Percentage of water absorbed is calculated by dividing
by initial weight.
(a) final weight (b) increased weight
(c) decreased weight (d) none of this
- (5) Ankita bought glucose powder. She felt it was adulterated with starch powder. How should she test it ?
(a) by sieving (b) by dissolving in water
(c) by iodine test (d) all of these

Q.2. Answer the following subquestions : (any five) 10

- (1) Give scientific reason :
Sodium and potassium are stored under kerosene.
- (2) Explain the reaction of Ethanol on phosphorus trichloride.
- (3) Distinguish between : Arteries and Veins.
- (4) Draw a neat labelled diagram of Digestive glands.
- (5) Write note on Pollination.
- (6) Give scientific reason : Phenotypic and genotypic ratios are different.

Q.3. Answer the following subquestions : (any five) 15

- (1) What is corrosion and explain the methods to prevent corrosion.
- (2) Draw a neat labelled diagram of Extraction of Aluminium. Write the anode reaction and Cathode reaction.
- (3) Give the IUPAC name of the following compounds :
(i) $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$ (ii) HCOOH
(iii) $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH}_3$
- (4) Classify the following as voluntary and involuntary movements.
(i) Coughing (ii) Food getting digested
(iii) Moving a table (iv) Beating of heart
(v) Release of hormones into blood (vi) Flying a kite.
- (5) Describe the movements in plants which are growth independent.
- (6) Describe spore formation in mucor with a neat labelled diagram.

Q.4. Answer the following subquestion : (any one)

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- (1) What do you mean by DNA? What is the peculiarity of its structure and name the scientist who put forward the most popular model of DNA?
- (2) State the functions of MPCB for prevention of water pollution.

Best Of Luck 🍀