

Q.P. SET CODE
C

MT - y

Seat No.

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2017 ___ ___ 1100 - MT - y - SCIENCE & TECHNOLOGY - II (72) - SET - C (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 :

(1) Fill in the blanks and rewrite the complete statements : 2

- (i) The process in which carbonate ores are changed into oxides by heating strongly in limited air is known is.....
- (ii) is the first homologue of alcohol series.

(2) Name the following : 1

Growth of plant in response to external factors.

(3) Match the following : 2

Column 'A'

Column 'B'

- | | |
|----------------------------|---|
| (i) Inhibits plant growth | (a) Breaks large fat globules into smaller ones |
| (ii) Cytokinins | (b) Auxins |
| (iii) Cellular respiration | (c) Mitochondria |
| (iv) Bile | (d) Promote cell division |
| | (e) Abscisic acid |

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

- (1) Which gas is released in plants during photosynthesis?
 - (a) Carbon dioxide
 - (b) Oxygen
 - (c) Nitrogen
 - (d) Hydrogen

- (2) Ramesh observed a slide of Amoeba with elongated nuclei. It would represent
- (a) Binary fission (b) Multiple fission
(c) Budding (d) None of these
- (3) A solution of $\text{Al}_2(\text{SO}_4)_3$ in water is
- (a) blue (b) pink
(c) green (d) colourless
- (4) Which of the following options is correct according to the reactivity of metals ?
- (a) $\text{Zn} < \text{Al} < \text{Fe} < \text{Cu}$ (b) $\text{Zn} > \text{Al} > \text{Fe} > \text{Cu}$
(c) $\text{Cu} < \text{Fe} < \text{Zn} < \text{Al}$ (d) $\text{Cu} < \text{Fe} < \text{Al} < \text{Zn}$
- (5) Ethanoic acid
- (a) is odourless (b) has a smell of ammonia
(c) has smell of rotten eggs (d) has a vinegar like odour

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

- (1) Give scientific reason :
Calcium floats over water during the reaction with water.
- (2) Differentiate between Alkane and Alkene.
- (3) How do plants get rid of their excretory products?
- (4) Write a short note on Regeneration.
- (5) Draw a neat labelled diagram of a neuron.
- (6) What is sustainable use?

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

- (1) What is seismonastic movement? Give two examples of seismonastic movement.
- (2) What is the three 'R mantra'? Write its significance.
- (3) Describe Darwin's theory of evolution.
- (4) Metal A has electronic configuration of (2, 8, 1) and metal B has (2, 8, 8, 2). Which is more reactive? Identify these metals and give their reactions with dil. HCl.

- (5) Write short note on Functional groups.
- (6) (i) By which process do green plants synthesize their food?
(ii) Name the factors which take part in this process.
(iii) Write the chemical equation of the above process.

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

5

- (1) Describe the male reproductive system in humans.
- (2) Explain Mendel's Monohybrid cross with a suitable example. Give the phenotypic and genotypic ratio.

Best Of Luck 🍀