

Q.P. SET CODE
C

MT - y

Seat No.

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2017 ___ 1100 - MT - y - SCIENCE & TECHNOLOGY - I (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 : 3

- (i) The element eka-silicon in Mendeleev's periodic table is known as in the modern periodic table.
- (ii) The process of rusting of iron is process.
- (iii) The phenomenon of splitting of light into its component colours is

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

- (i) The material used for fuse has low melting point.

(3) Find the odd man out : 1

- (i) Loudspeaker, Microphone, Electric motor, Bar magnet

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

- (1) When light travels from denser to rarer medium it will
 - (a) bend towards the normal
 - (b) bend away from the normal
 - (c) pass without any deviation
 - (d) follow the law of reflection.

- (2) Of what is the reddish brown deposit formed on iron nails kept in a solution of copper sulphate ?
(a) Cu_2O (b) Cu
(c) CuO (d) CuS
- (3) Equivalent resistance of a series connection of resistors is
(a) smaller than the smallest resistance
(b) greater than the greatest resistance
(c) an average of all resistances
(d) none of these
- (4) is not required to find the pH of a solution.
(a) pH paper (b) Litmus paper
(c) Standard pH chart (d) Universal indicator
- (5) Which one of the following is true according to Ohm's law ?
(a) Resistance increases as current increases
(b) Current increases as resistance increases
(c) Resistance increases as voltage increases
(d) $I \propto V$ graph is linear

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

- (1) Explain the following chemical reaction with the help of balanced equation : Dilute sodium hydroxide is added to a test tube containing aluminium ribbon.
- (2) A ray diagram for object between pole and focus for a concave mirror.
- (3) Give scientific reason : A simple microscope is used by watch repairers.
- (4) Explain the properties of salt.
- (5) Give scientific reason : Halogens are placed in group VII A.
- (6) Who implements the laws related to pollution?

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

- (1) (a) Define Electric power.
(b) An electric iron rated 750 W is operated for 2 hours/day. How much energy is consumed by the electric iron for 30 days?

- (2) Explain the demerits of Mendeleev's periodic table.
- (3) State any three properties of magnetic lines of force or magnetic field lines.
- (4) Distinguish between Direct current and Alternating current.
- (5) Define 'redox reaction'. Give one example.
- (6) What is the role of citizens in pollution control?

Q.4. Answer the following subquestion : (any one)**5**

- (1) Explain electric motor with the help of the following points :
 - (i) Draw figure.
 - (ii) Principle of electric motor
 - (iii) Name any four appliances where electric motor is used.

- (2) (a) What is Power of accommodation of eyes.
(b) Ramesh was not able to see far off objects clearly but after 60 years he could not even see the nearby objects clearly.
 - (i) State the earlier defect.
 - (ii) State the defect after 60 years.
 - (iii) What will he do to rectify both these defects?

Best Of Luck 🍀