

17211

15162

2 Hours / 50 Marks

Seat No.

--	--	--	--	--	--	--	--

- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any NINE of the following :

18

- (a) Write two applications of copper.
- (b) Write two ores of copper with their chemical formulae.
- (c) Write the action of water on Aluminium.
- (d) Define corrosion. Write its types.
- (e) Why galvanised containers cannot be used for storage of food-stuff ?
- (f) Which oxide film is most protective against corrosion ? Why ?
- (g) State the factors affecting the rate of electrochemical corrosion.
- (h) Define specific conductance. Write its unit.
- (i) Why does a dry cell become dead after a long time, even if it has not been used ?
- (j) Distinguish between dielectrics and insulators.
- (k) Write two applications of phenol formaldehyde resin.
- (l) Define insulators. Write its types.

P.T.O.

2. Answer any FOUR of the following : **16**

- (a) Describe Bessemerisation process for extraction of copper.
- (b) Describe Bayer's process for extraction of Aluminium.
- (c) Write two properties and two applications of Rose metal.
- (d) Define adhesives. Write three characteristics of adhesives.
- (e) Distinguish between primary and secondary cells.
- (f) Describe construction and working of Daniel cell with the help of diagram.

3. Attempt any FOUR of the following : **16**

- (a) Explain mechanism of immersed corrosion with evolution of hydrogen gas.
 - (b) Describe mechanism of corrosion of metal due to action of oxygen.
 - (c) Describe galvanising process with suitable diagram.
 - (d) Explain discharging and charging process of lead acid storage cell.
 - (e) Write two characteristics and two uses of Ni-Cd battery.
 - (f) Describe construction and working of hydrogen-oxygen fuel cell.
-