



17211

11819

2 Hours / 50 Marks

Seat No.

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- 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) *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 ores of copper with their chemical formulae.	2
b) Write the action of water on copper.	2
c) Write two applications of aluminium.	2
d) Define corrosion and write its two types.	2
e) Why tinned containers are used for storage of food ?	2
f) Write two points of similarity between sherardizing and galvanizing process.	2
g) Why metal cladding is clone plane on surfaces only ?	2
h) Distinguish between primary cell and secondary cell. (Two points).	2
i) Define the terms :	2
i) Specific conductance	
ii) Equivalent conductance.	
j) Define the terms :	2
i) Photo conductive polymers	
ii) Liquid crystal polymers.	
k) Write two applications of Teflon.	2
l) Distinguish between dielectrics and insulators (two points).	2

P.T.O.

**Marks**

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| 2. Attempt any four of the following : | 16 |
| a) Describe smelting process with neat labelled diagram. | 4 |
| b) Describe the process of purification of aluminium by electrolytic refining with the help of neat, labelled diagram. | 4 |
| c) State composition, properties and application of Tinmann's solder. | 4 |
| d) Write four properties and four applications of urea. Formaldehyde resin. | 4 |
| e) Describe construction and working of hydrogen oxygen fuel cell. | 4 |
| f) Explain construction and working of Ni-Cd cell with diagram. | 4 |
| 3. Attempt any four of the following : | 16 |
| a) Describe the hydrogen evaluation mechanism of immersed corrosion. | 4 |
| b) Explain four factor affecting rate of immersed corrosion. | 4 |
| c) Describe the tinning process. Write its two applications. | 4 |
| d) Write the chemical reaction taking place during charging and discharging of lead acid storage cell. | 4 |
| e) Explain construction and working of dry cell. | 4 |
| f) Describe construction and working of Daniell cell. | 4 |
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