

17203

15116

2 Hours / 50 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each neat 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
- Define corrosion, Give it's types.
 - What are the products of Blast furnace?
 - State types of lubricants with examples.
 - Why gold does not get corroded in air?
 - Explain the function of coke in extraction of Iron from it's ore.
 - Define heat treatment.
 - State different types of film formed during corrosion and which type of oxide film is more protective against corrosion?
 - Name two ores of Iron with its molecular formulae.
 - Why galvanised containers are not used for food stuffs?
 - Define the term fire point and flash point.
 - Define fuels. How are they classified?
 - Give composition of L.P.G..

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- 2. Attempt any FOUR of the following:** **16**
- a) State composition properties and applications of C.N.G.
 - b) Explain mechanism of electrochemical corrosion due to absorption of O₂ gas.
 - c) Define neutralisation number, saponification value, viscosity and viscosity index.
 - d) Give chemical reactions taking place in zone of reduction of blast furnace.
 - e) State advantages and disadvantages of solid fuels.
 - f) Explain fluid film lubrication with diagram.
- 3. Attempt any FOUR of the following:** **16**
- a) Give composition, properties and applications of Biogas.
 - b) Distinguish between galvanising and tinning.
 - c) How carbon steels classified? Give two properties and applications of each.
 - d) State any four functions of Lubricants.
 - e) Explain proximate analysis of coal and its significance.
 - f) Name and explain the method used to protect small and uneven articles from corrosion.
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