

22314

22232

3 Hours / 70 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 FIVE of the following :	10
(a) List the applications of acetylene.	
(b) State the classification of refractories.	
(c) Write properties and uses of caustic soda.	
(d) State the process of conversion yellow phosphorus to red phosphorus.	
(e) State the reason of coating ammonium nitrate with clay.	
(f) State the process for avoiding formation of biurate.	
(g) Write the reaction involved in manufacturing of phosphoric acid by wet process.	
2. Attempt any THREE of the following :	12
(a) Draw the process flow diagram for manufacturing of hydrochloric acid by synthesis method.	
(b) Explain the manufacturing of ammonium nitrate.	
(c) Draw the process flow diagram for manufacturing of triple super phosphate.	
(d) Write reactions involved in manufacturing of soda ash.	



3. Attempt any THREE of the following : 12

- (a) Classify cement on the basis of constituents.
- (b) Explain manufacturing of water gas.
- (c) Draw process flow diagram for manufacturing of nitric acid.
- (d) Draw process flow diagram for manufacturing of ammonia.

4. Attempt any THREE of the following : 12

- (a) Explain manufacturing of Phosphorus.
- (b) Explain the importance of mixed fertilizer in agriculture sector.
- (c) Summarize the properties of good refractories. (Any Four)
- (d) Explain manufacturing of oxygen and nitrogen by Linde's process.
- (e) State the difference between mixed fertilizer and compound fertilizer with one example.

5. Attempt any TWO of the following : 12

- (a) Explain manufacturing of sulphuric acid by contact process.
- (b) Explain manufacturing of ammonium sulphate with process flow diagram.
- (c) Describe manufacturing of caustic soda.

6. Attempt any TWO of the following : 12

- (a) Explain manufacturing of Di-ammonium phosphate.
- (b) Explain manufacturing of hydrogen.
- (c) (i) Draw flow diagram for manufacturing of phosphoric acid
(ii) Write the different grades of mixed fertilizer.
