

17558

21819

3 Hours / 100 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) Assume suitable data, if necessary.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. (A) Attempt any THREE of the following :

12

- (a) State the importance and objectives of plant safety.
- (b) What are the effect of radiation hazards ?
- (c) What are the factors to be considered for selection of proper respiratory devices ?
- (d) Write importance of self contained breathing apparatus and blasting helmets.

(B) Attempt any ONE of the following :

6

- (a) Describe in detail chemical hazards due to Ammonia.
- (b) Explain various non-respiratory personal protective equipments and state their use.

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

- (a) State the various plant safety provisions.
- (b) With neat sketch describe the air purifier type respirator.
- (c) State the objective of Safety Audit.
- (d) List different methods for liquid storage and explain it.
- (e) Explain the fire triangle with suitable diagram.

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

- (a) Give the classification of explosives with suitable example.
- (b) Describe the construction and working of belt conveyor.
- (c) Explain the On-Line maintenance of Rota meter with suitable diagram.
- (d) State advantages and applications of preventive maintenance.
- (e) Why maintaining plant maintenance record is important ? What are its benefits ?

4. (A) Attempt any THREE of the following :**12**

- (a) Describe any two types of packings used for solids with suitable diagram.
- (b) Write various modes of transport and their suitability.
- (c) Explain the functions and responsibilities of plant maintenance department. (any eight)
- (d) Describe the soda acid type fire extinguisher with suitable diagram.

- (B) Attempt any ONE of the following :** **6**
- (a) Describe the construction and working of bucket elevator with diagram.
 - (b) Explain the procedure of safety auditing.
- 5. Attempt any TWO of the following :** **16**
- (a) Describe with labelled diagram fire buckets and fire hydrant.
 - (b) Explain procedure for start up of the plant.
 - (c) What is Break down maintenance ? Give the advantages and disadvantages of break down maintenance.
- 6. Attempt any TWO of the following :** **16**
- (a) Describe positive type pneumatic conveyor.
 - (b) Describe the procedure for shut down maintenance.
 - (c) Explain in detail predictive maintenance and scheduled maintenance.
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