



17558

15162

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.*

Marks

1. A) Attempt **any three** of the following : **12**
- a) Define Hazard. Write types of Hazards.
 - b) Write sources and protection of Noise Hazard.
 - c) List the equipment used for breathing and respiratory protection (any four).
 - d) Write two points each in comparison on respiratory and non-respiratory protective equipment.
- B) Attempt **any one** of the following : **6**
- a) List the sources of Radioactive Hazards with one example each.
 - b) Describe the various protections used against Eye and Head.
2. Attempt **any four** of the following : **16**
- a) What are the precautions taken against Electrical Hazard.
 - b) Give the four types of personnel protective equipments and write its application.
 - c) Describe with neat diagram of dry chemical powder fire extinguisher.
 - d) State the objective of safety audit.
 - e) Explain Bin storage with neat sketch.
3. Attempt **any four** of the following : **16**
- a) List the causes of Explosion Hazards.
 - b) State the objectives of material handling.
 - c) List the types of plant maintenance.
 - d) State the objectives of preventive maintenance.
 - e) How on-line maintenance of Rotameter is carried out ?

P.T.O.



Marks
12

4. A) Attempt **any three** of the following :

- a) Define fire and how it is extinguished ?
- b) List the causes of equipment breakdown.
- c) What is palletization and classify the pallets.
- d) What are different methods of storage of liquids ?

B) Attempt **any one** of the following :

6

- a) Describe procedure for safety audit.
- b) Draw a sketch of Belt Conveyor and write its working.

5. Attempt **any two** of the following :

16

- a) Describe with neat diagram, construction and working of Soda Acid type Fire Extinguisher.
- b) Describe the duties, functions and responsibilities of plant maintenance engineering department.
- c) Describe the procedure for start-up of the plant.

6. Attempt **any two** of the following :

16

- a) Write different types of pneumatic system. Explain positive pressure pneumatic system with diagram.
 - b) Draw a block diagram of organisation of maintenance department.
 - c) Describe the predictive maintenance and scheduled maintenance.
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