



17558

21415

3 Hours/100 Marks

Seat No.

--	--	--	--	--	--	--	--

-
- 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) Write causes of accidents in an industry.
 - b) Explain plant safety provisions in an industry.
 - c) Enlist any four types of personal protective equipments with their importance.
 - d) What are the factors to be considered for selection of proper personal protective equipments ?
- B) Attempt **any one** of the following : **6**
- a) Explain the causes of explosion hazards and electrical hazards in chemical plant.
 - b) Write importance of high efficiency dust respirator and blasting helmets.
2. Attempt **any four** of the following : **16**
- a) Describe the harmful effects of ammonia on human being.
 - b) Give precautions related with head and eye protection and its importance.
 - c) Explain the procedure for safety auditing.
 - d) List different methods for liquid storage and explain it.
 - e) What are the methods for fire protection and describe your answer with examples ?

P.T.O.

**MARKS**

3. Attempt **any four** of the following : **16**
- a) Explain the effects of noise on human being. List their legislative measures.
 - b) Give safety precautions in the transportation of inflammable liquids.
 - c) Write objective of preventive maintenance.
 - d) Mention four roles of maintenance department in detail.
 - e) Write disadvantages of break down maintenance.
4. A) Attempt **any three** of the following : **12**
- a) Distinguish between conveyors and elevators with suitable examples.
 - b) How mass flow bins for storage works ? What are its advantages ?
 - c) How the online maintenance is done in chemical plant ? Explain in detail.
 - d) Give technical specifications of foam type fire extinguisher and its applications.
- B) Attempt **any one** of the following : **6**
- a) Explain construction and working of U-trough screw conveyor using helicoid flights with labelled neat diagram.
 - b) Distinguish between audit report and safety report.
5. Attempt **any two** of the following : **16**
- a) Explain construction and working of dry chemical extinguisher in detail.
 - b) Describe the procedure for start-up of a plant.
 - c) How shutdown maintenance of sugar industry is done ? Explain in detail.
6. Attempt **any two** of the following : **16**
- a) Explain the working of pneumatic conveyor with neat diagram.
 - b) Prepare preventive maintenance chart for a centrifugal pump.
 - c) Explain the use of PERT chart for shutdown maintenance activity with suitable example.
-