

17558

16172

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.
 - (5) 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) Name different types of hazards.
- (b) Name the dangerous properties of chemicals.
- (c) Name the personal protective equipment with use of each. (any four)
- (d) Describe maintenance of personal protective equipment. Also state the conditions under which replacement becomes essential.

(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 noise. Write disadvantages of Ear plugs.

- 2. Attempt any FOUR of the following :** **16**
- (a) State the different electrical safety precautions.
 - (b) Draw proportionate sketch of any four personal protective equipments.
 - (c) State types & benefits of safety audit.
 - (d) Classify storage bins based on the material flow pattern. Describe any one in detail.
 - (e) Draw & describe fire triangle.
- 3. Attempt any FOUR of the following :** **16**
- (a) Describe physiological effect of electricity.
 - (b) State objectives of materials handling.
 - (c) Give advantages and disadvantages of breakdown maintenance.
 - (d) Describe with diagram online maintenance for steam trap.
 - (e) State objectives of plant maintenance.
- 4. (A) Attempt any THREE of the following :** **12**
- (a) Classify materials based on their state of completion in the manufacturing process.
 - (b) Classify pallets based on material of construction.
 - (c) State different objectives of preventive maintenance.
 - (d) Describe foam type fire extinguisher.
- (B) Attempt any ONE of the following :** **6**
- (a) State how solids are packed in different ways.
 - (b) How documentations for safety audit is prepared ?

5. Attempt any TWO of the following : 16

- (a) Classification of fire and suitable type of extinguisher.
- (b) Describe the duties functions and responsibilities of plant maintenance engineering department.
- (c) Name types of maintenance & describe any one.

6. Attempt any TWO of the following : 16

- (a) Draw & describe positive pressure pneumatic & negative pressure or vacuum system.
 - (b) Name the cause & trouble-shooting of centrifugal pumps.
 - (c) Describe procedure for startup of the chemical plant.
-

