

22451

21819

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 responsibilities of maintenance department.
- (b) Define wear and write its types.
- (c) List the types of industrial hazards.
- (d) State the causes of fire hazards.
- (e) List the risk assessment methods.
- (f) Name the tools required for mechanical maintenance.
- (g) Define accident and list its causes.

2. Attempt any THREE of the following :

12

- (a) State the need of preventive maintenance with the help of two examples.
- (b) Write factors affecting on selection of lubricants.
- (c) Explain any two personal protective equipment and its use.
- (d) Describe deluge and emulsifier fire suspension system.

- 3. Attempt any THREE of the following : 12**
- (a) Compare breakdown maintenance and preventive maintenance.
 - (b) Explain repair cycle with suitable example.
 - (c) Explain corrosive reaction wear process in detail.
 - (d) State types of accidents and how they are controlled.
- 4. Attempt any THREE of the following : 12**
- (a) Explain splash lubrication with neat sketch.
 - (b) Compare adhesive wear and abrasive wear.
 - (c) Suggest personal protective equipments in following industrial hazards :
 - (i) Chemical (ii) Electrical
 - (iii) Thermal (iv) Radioactive
 - (d) Prepare a preventive maintenance plan for the fire extinguishers placed at your college.
 - (e) Explain safety audit.
- 5. Attempt any TWO of the following : 12**
- (a) Describe various classes of fire with suitable examples and type of fire extinguishers used accordingly.
 - (b) Prepare safety data sheet for (i) Chemical hazard (ii) Fire hazard
 - (c) Explain any two risk assessment method.
- 6. Attempt any TWO of the following : 12**
- (a) Explain preventive maintenance with suitable example.
 - (b) Develop planning and scheduling of maintenance work for your college workshop.
 - (c) Explain HAZOP and HAZAN.
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