21819 3 Hours / 100 Marks

Seat No.

Instructions:

- (1) All Questions are *compulsory*.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data, if necessary.
- (5) Preferably, write the answers in sequential order.

Marks

1. Solve any FIVE:

 $5 \times 4 = 20$

- (a) What are the various methods used for purification of water in industry? Explain necessity of water purification.
- (b) Explain water distribution system in industry.
- (c) What do you understand by standby & emergency power?
- (d) Describe electric power distribution system with the help of neat sketch.
- (e) Describe the importance of maintenance.
- (f) What are the stages of preventive maintenance? Explain any one.

2. Solve any FOUR:

 $4 \times 4 = 16$

P.T.O.

- (a) Write procedure of preventive maintenance of a air compressor.
- (b) Compare between preventive & scheduled maintenance.
- (c) What are the advantages of scheduled maintenance?
- (d) Explain in detail machine history chart.
- (e) What are the different maintenance tools? Explain it.

[1 of 2]

17531 [2 of 2]

3. Solve any FOUR:

- (a) What are the pillars of total productive maintenance?
- (b) Write applications of TPM in industry.
- (c) Explain the basic system of TPM.
- (d) Define the term wear. What are the causes of wear?
- (e) Describe the following wear process:
 - (i) Adhesive wear
 - (ii) Corrosive reaction

4. Solve any FOUR:

 $4 \times 4 = 16$

 $4 \times 4 = 16$

- (a) Describe observed wear behaviour due to primary wear process.
- (b) Describe the importance of lubrication.
- (c) Explain with neat sketch sump lubrication system.
- (d) Write short note on selection procedure of lubricants.
- (e) Enlist the equipment required for electrical maintenance.

5. Solve any FOUR:

 $4 \times 4 = 16$

- (a) Explain the construction of multimeter. State its use.
- (b) Explain the necessity of earthing for electrical installations.
- (c) Enlist various steps for prevention of fire due to electricity.
- (d) Define the term accident. State its type.
- (e) Explain the causes of accidents.

6. Solve any FOUR:

 $4 \times 4 = 16$

- (a) What is mean by 'First aid'? State its importance.
- (b) Explain the necessity of proper housekeeping in industries.
- (c) With the help of neat sketch explain lever controlled reversal mechanism.
- (d) Write short note on Fool proofing devices for interlocking.
- (e) Prepare preventive maintenance schedule of any one machine of four choice.