

DAY

SEAT NUMBER

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2025

III

06

1100

V - 58

(E)

MECHANICAL MAINTENANCE

PAPER - II (A-2)

Time : 2½ Hours

2 Pages

Max. Marks : 40

- Instructions :**
- (1) All questions are compulsory.
 - (2) Figures to the right indicates full marks.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Use of drawing instruments, mathematical tables etc. is permitted.
 - (5) Assume suitable data, if necessary.

1. Answer the following : (Any Four)

4

Fill in the blanks with appropriate words from those given below :

- (a) _____ is used to supply mixture of air and petrol in correct proportion.
- (i) Fuel Injector
 - (ii) Carburettor
- (b) Foot valve is used in _____ pump.
- (i) Reciprocating
 - (ii) Centrifugal

State 'True' or 'False' and correct it, if false :

- (c) Reciprocating pumps need priming.
- (d) Elbow is used to join two pipes at right angle to each other.

Match the pairs :

- (e) Oldham's coupling (i) To connect intersecting shafts
- (f) Universal coupling (ii) To connect parallel shafts
- (iii) To connect shaft as and when required

2. Answer the following in about 8 to 10 lines each : (Any Two)

- (a) State the advantages and disadvantages of Belt Drive.
- (b) Describe 'Screw Jack' with neat sketch.
- (c) What are the uses of Compressed Air ?

3. Answer the following in about 8 to 10 lines each : (Any Two)

6

- (a) Differentiate between Petrol Engine and Diesel Engine.
- (b) What are the types of Impellers ? Explain any one of them with neat sketch.
- (c) Explain flanged coupling with neat sketch.

4. Answer the following in about 5 to 6 lines each : (Any Three)

6

- (a) Write short note on Piston. <https://www.maharashtrastudy.com>
- (b) Draw a neat sketch of Solid Bearing.
- (c) State the functions of Foundation.
- (d) What are the general rules for safe material handling ?
- (e) Why priming is necessary in Centrifugal Pump ?

5. Answer the following in about 5 to 6 lines each : (Any Three)

6

- (a) Why does I.C. engine needs cooling ?
- (b) Draw a neat labelled sketch of fuel injector.
- (c) Classify the Bearings.
- (d) List the various tools and equipments required in pipe fitting.
- (e) State the function of cam shaft in engine.



6. Answer the following : (Any Two)

12

- (a) What are the types of Gear Drives ? Describe any one of them with neat sketch.
- (b) Explain working of four stroke petrol engine with neat sketches.
- (c) Compare the Centrifugal Pump with Reciprocating Pump.