

DAY - ②

SEAT NUMBER

2011

II

24

1500

V - 304

(E)

MECHANICAL MAINTENANCE
PAPER - I (A-2)

Time : 2½ Hours

3 Pages

Max. Marks : 40

- Instructions :**
- (1) All questions are compulsory.
 - (2) Figures to the right indicate 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) While engaging Back Gear, Lock Pin should be _____.
 - (i) Connected
 - (ii) Disconnected
- (b) _____ Drills are used with Drill Chuck.
 - (i) Parallel Shank
 - (ii) Taper Shank

State 'true' or 'false' and correct it, if false :

- (c) A slotter removes metal during upward stroke.
- (d) Acme threads are used in lead screw of a lathe.

Give reasons :

- (e) Handles of measuring tools are knurled.
- (f) Dividing Head or Indexing Head is used in Milling Operations.

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

6

- (a) What do you mean by Cutting Speed, Feed and Depth of Cut in Drilling Machine ?
- (b) Explain working principle of Centreless Grinder with neat sketch.
- (c) Explain Alignment Test for a lathe for parallelism of main spindle to saddle movement.

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

6

- (a) How Lathes are specified ?
- (b) Explain working principle of Shaper with neat sketch.
- (c) Explain Angular Milling Operation and Form Milling Operations

4. Answer the following in short : (Any Three)

6

- (a) Notes on 'Scraping Operation'
- (b) Notes on 'Four Jaw Chuck'
- (c) Notes on 'Taps'
- (d) What is the difference between Universal Milling Machine and Omniversal Milling Machine ? <https://www.maharashtrastudy.com>
- (e) State Functions of Coolants.



5. Answer the following in short : (Any Three)

6

- (a) What are the main differences between Steady Rest and Follower Rest ?
- (b) State safety precautions to be taken in Industrial Wiring System.
- (c) List Work Holding Devices used while Drilling and explain any one of them.
- (d) What are the factors to be considered while selecting Grinding Wheels ?
- (e) What are the requirements of Good Preventive Maintenance ?