

DAY - 16

SEAT NUMBER

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2020

III

11

1100

V - 204

(E)

MECHANICAL MAINTENANCE
PAPER - I (A-2)

Time : 2½ Hours

2 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. are permitted.
 - (5) Assume suitable data, if necessary.

1. Answer the following : (Any Four)

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Fill in the blanks :

- (a) Dressing operation is done by _____.
 - (i) Dresser
 - (ii) Tap
- (b) _____ rest moves with the tool and gives continuous support to the job.
 - (i) Steady
 - (ii) Follower

Match the pairs :

- | | |
|----------------------------------|-----------|
| (c) Cutting Angle of Twist drill | (i) 60° |
| (d) Angle of Centre Punch | (ii) 118° |
| | (iii) 90° |

State true or false ; and correct it; if false :

- (e) The fuse is used to protect the appliances from excessive current.
- (f) In planer tool reciprocates while work is stationary.

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[P.T.O.]

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

- ✓ (a) Write work holding devices used on Drilling Machine. Explain any one with neat sketch.
- (b) What are the various types of Milling Cutters ? Explain any one with neat sketch.
- ✓ (c) Explain Knurling Operation with neat sketch.

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

- (a) Differentiate between Shaper and Planer. ✓
- (b) Explain Bench Drilling Machine with neat sketch. ✓
- ✓ (c) Define loading, glazing and dressing of the grinding wheel. ✓

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

- (a) What are the safety precautions to be taken while working on lathe machine ? <https://www.maharashtrastudy.com>
- (b) What are different types of Grinding Machines ?
- ✓ (c) Write the functions of Tailstock.
- ✓ (d) What are the disadvantages of Breakdown Maintenance ?
- ✓ (e) Why drilling is followed by Reaming ? ✓

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

- ✓ (a) Differentiate between Drilling and Boring. ✓
- (b) State functions of Coolant.
- (c) Explain Scrapping Operation.
- ✓ (d) Write the factors to be considered while selecting a Grinding Wheel.
- (e) Enlist operations performed on Shaper.

6. Attempt any two :

- ✓ (a) What are the different methods of Taper Turning ? Explain any one with neat sketch.
- ✓ (b) What are the different types of Surface Grinders ? Explain any one with neat sketch.
- (c) Draw a neat labelled diagram of Slotting Machine. Explain any three major parts.