

DAY - 17

SEAT NUMBER

2025

III

04

1100

V - 24

(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) _____ is used for holding the work between centers.
- (i) Catch Plate and Carrier
 - (ii) Chuck
- (b) _____ is the operation of enlarging the end of hole conically.
- (i) Counter Boring
 - (ii) Counter Sinking

Match the pairs :

- | | |
|------------------|--------------------------------|
| (c) Plumb bob | (i) To check clearance |
| (d) Feeler gauge | (ii) To check horizontal level |
| | (iii) To check vertical level |

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

- (e) In slotter machine ram moves in vertical direction.
- (f) Emery is an artificial abrasives.

2. Answer the following in about 8 to 10 lines each : (Any Two) 6
- (a) Explain Belt Grinder with neat sketch.
 - (b) Differentiate between Shaper and Planer.
 - (c) Enlist various types of Chucks. Explain any one of them with neat sketch.
3. Answer the following in about 8 to 10 lines each : (Any Two) 6
- (a) What are tool holding devices used on Drilling Machine ? Explain any one with neat sketch.
 - (b) What are the advantages of Preventive Maintenance ?
 - (c) List types of Centers. Explain any one of them with neat sketch.
4. Answer the following in about 5 to 6 lines each : (Any Three) 6
- (a) Enlist operations performed on Slotting Machine.
 - (b) Why starter is necessary in the electrical connection of machine tools ?
 - (c) What is Scraping ?
 - (d) Draw a sketch of Steady Rest.
 - (e) Write a short note on Gang Drilling Machine.
5. Answer in following in about 5 to 6 lines each : (Any Three) 6
- (a) Enlist operations performed on Drilling Machine.
 - (b) Draw a block diagram of Shaper Machine.
 - (c) What do you mean by Loading and Glazing ?
 - (d) List the measuring equipments used for testing of Machine.
 - (e) What is Indexing ?
6. Attempt any two : 12
- (a) Explain Tailstock with neat sketch. State its function.
 - (b) What are the different types of Milling Cutters ? Explain any one with neat sketch.
 - (c) Draw a block diagram of Bench Drilling Machine. Explain any two parts of it.