

(Compulsory Question)

9. Short answer type questions :  $2 \times 10 = 20$
- (i) What do you mean by BIS ?
  - (ii) Define orthographic projection.
  - (iii) Why second and fourth quadrants are not used in practice ?
  - (iv) What dimensions of an object are given by front view or elevation ?
  - (v) What is the convention of representing first-angle projection method ?
  - (vi) What do you mean by single plate clutch ?
  - (vii) What are the types of riveted joints ?
  - (viii) Why welding is more popular than riveted joints ?
  - (ix) What is double *j*-butt weld ?
  - (x) What are the types of brakes ?

Roll No. ....

Total Pages : 04

**July-22-00231**

**B. Tech. EXAMINATION, 2022**

Semester III (CBCS)

MACHINE DRAWING (ME, AE)

ME-304

*Time : 3 Hours*

*Maximum Marks : 60*

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*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

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**Note :** Attempt *Five* questions in all, selecting *one* question from each Section A, B, C and D. Q. No. 9 is compulsory.

**Section A**

1. What is meant by the *Hole basis system* and *Shaft basis system* ? Why is the *Hole basis system* more popular ? 10

2. What is surface-roughness ? Define the terminology for surface roughness. 10

Section B

3. Draw the profile of an involute teeth for a gear having 24 teeth and module equal to 8.33 mm and assuming a pressure angle of 20°. 10

4. Define the following terms used in connection with a screw thread : Core diameter; outer diameter; crest; flank; depth; pitch. Show each on a sketch of the threaded end of a screw. 10

Section C

5. Show in two views, a dimensioned sketch of a box-type coupling for 50 mm diameter shafts. 10

6. Discuss the various types of welding joints with neat sketches. Why welding is more popular than riveted joints ? 10

Section D

7. The details of a drill machine vice are shown in Figure 1. Assemble all the parts and draw the 2

following views of the assemble : (i) Elevation (ii) End view. 10

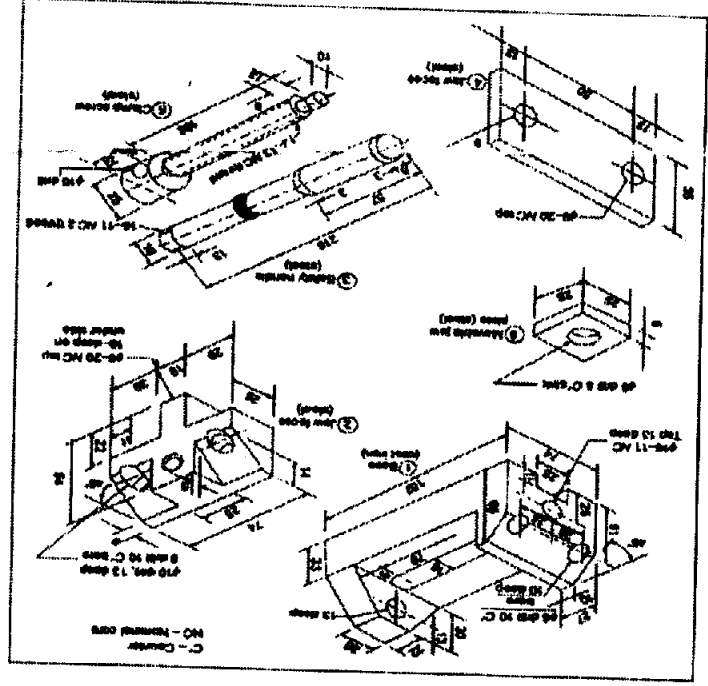


Figure 1

8. Sketch nearly a knuckle joint for connecting two 40 mm diameter rods. Give all important dimensions. 10