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Total No. of Pages : 03

Total No. of Questions : 09

B.Tech.(ANE) (Sem.–3)

MACHINE DRAWING

Subject Code : ME-207

Paper ID : [A0804]

Time : 4 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Answer briefly :

a) Make a free hand sketch of the Metric thread profile giving important proportions.

b) Explain the aligned system of dimensioning with the help of neat sketch.

c) Name four pipe fittings.

d) Draw free hand sketch of hexagonal bolt

e) What is muff coupling?

f) Define tolerance.

g) Draw the symbol for first angle projection.

h) Draw the symbol along with illustration for fillet weld.

i) Write various types of bearings.

j) Differentiate between actual and basic size.

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SECTION-B

2. Sketch two views of a double riveted lap joint for 9 mm thick plates when it has chain riveting.

3. Draw two views of castle nut. Take nominal diameter D = 25mm. Indicate all necessary proportions, in terms of D, on the views.

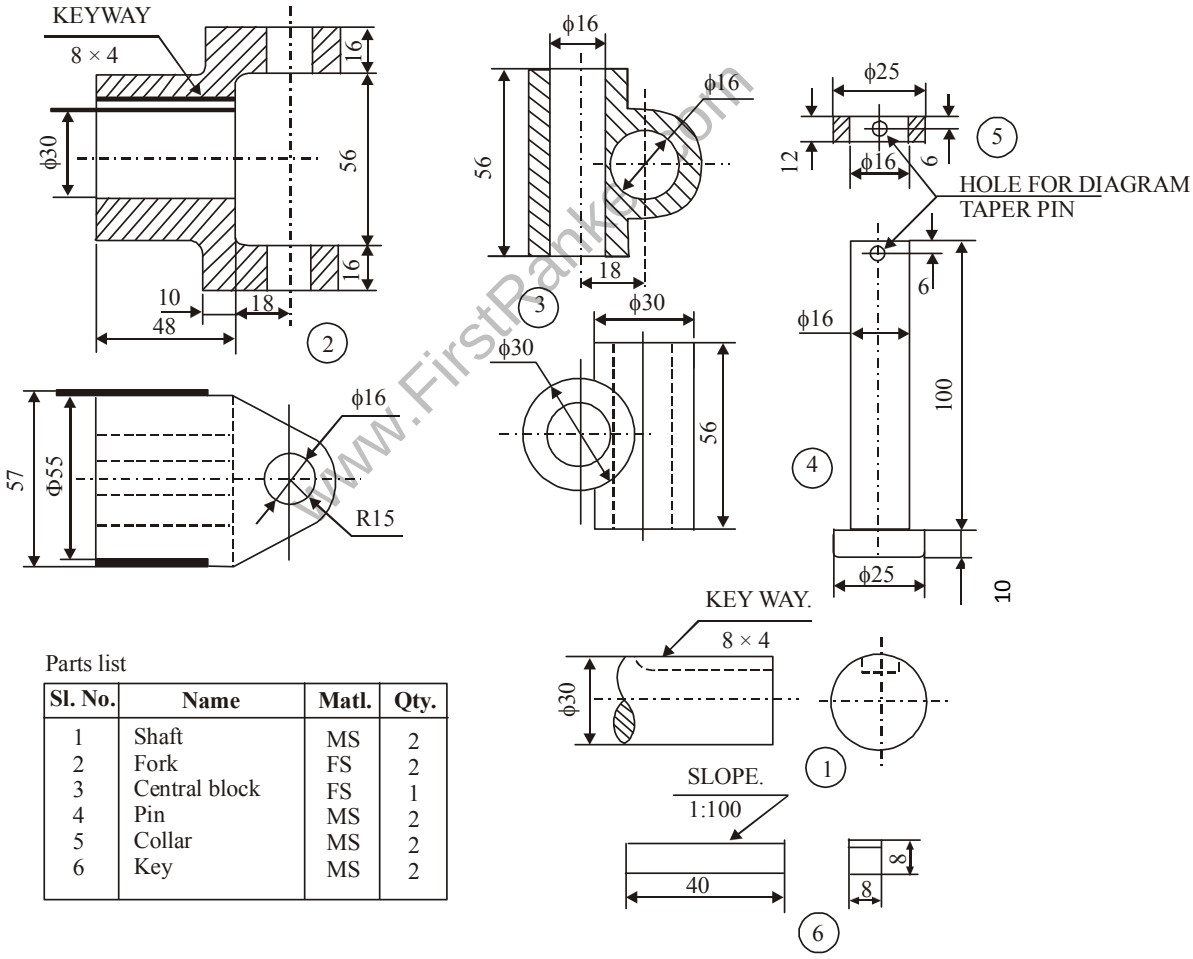
4. Discuss the following commands used in Auto-Cad: Explode, Mirror, Chspace, Area and Offset.

5. What is the function of a bearing? What is Journal? Describe with proportionate sketches, any two bearings used for supporting shafts.

6. Draw two views of a flanged pipe joint for a pipe of 100mm diameter and having four bolts securing the flanges together.

SECTION-C

7. Assemble the parts of universal coupling and, shown in Fig. 1 and draw the sectional front and the right-side view.



Parts list

Sl. No.	Name	Matl.	Qty.
1	Shaft	MS	2
2	Fork	FS	2
3	Central block	FS	1
4	Pin	MS	2
5	Collar	MS	2
6	Key	MS	2

Fig. 1.Universal Coupling

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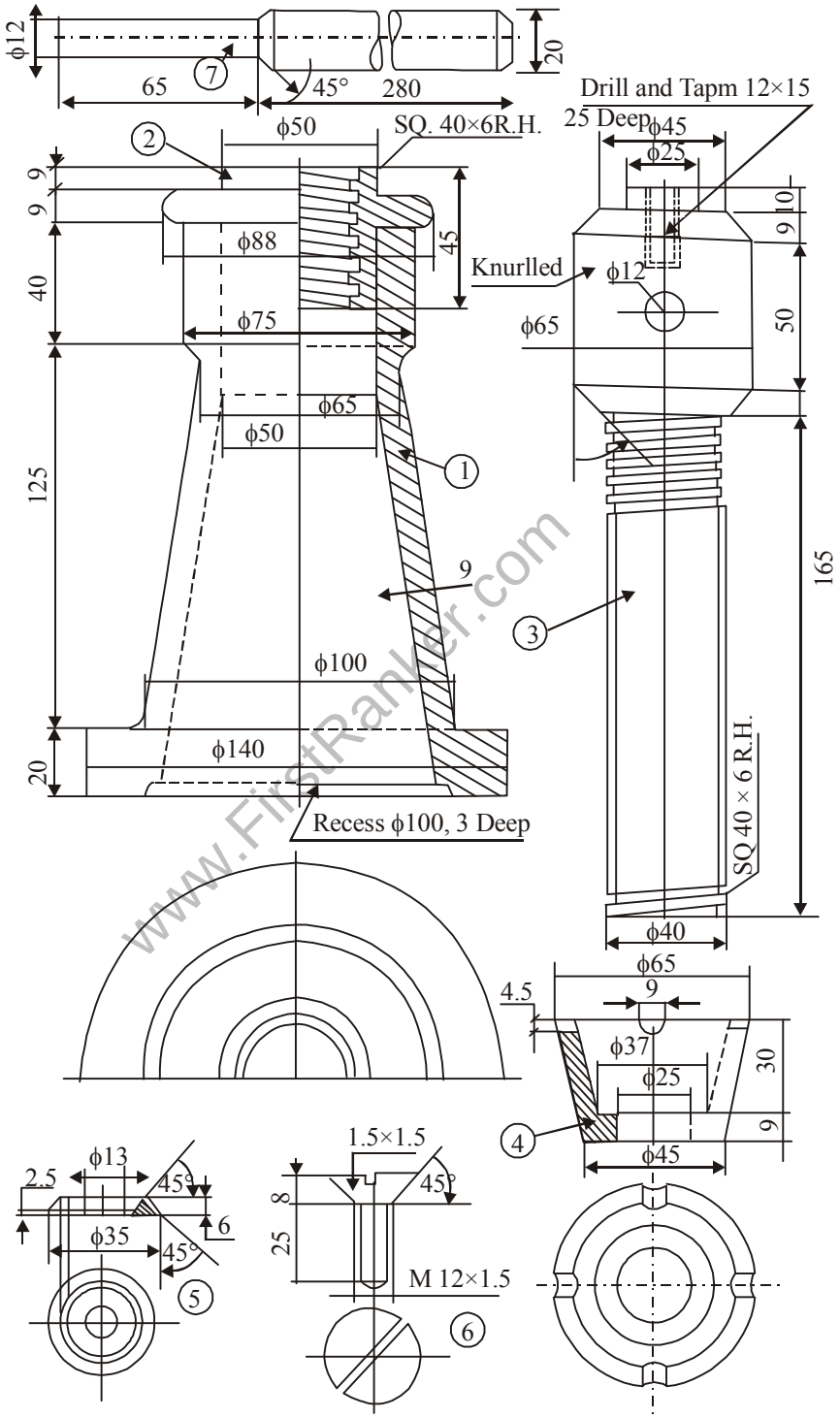
8. Draw the following thread sections, to a scale full size, and give all the standard proportions; BSW, B.A. Thread, Metric Thread, Acme Thread. Show at least two complete pitch lengths for each thread and take pitch as 40 mm.

9. From the details of a screw jack shown in Fig. 2, draw the following views : Front view-right half in section and top view.



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