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Total No. of Pages : 05

Total No. of Questions : 09

B.Tech.(AE) (2011 Onwards) (Sem.-3)

**MACHINE DRAWING**

Subject Code : BTAE-306

Paper ID : [A1156]

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

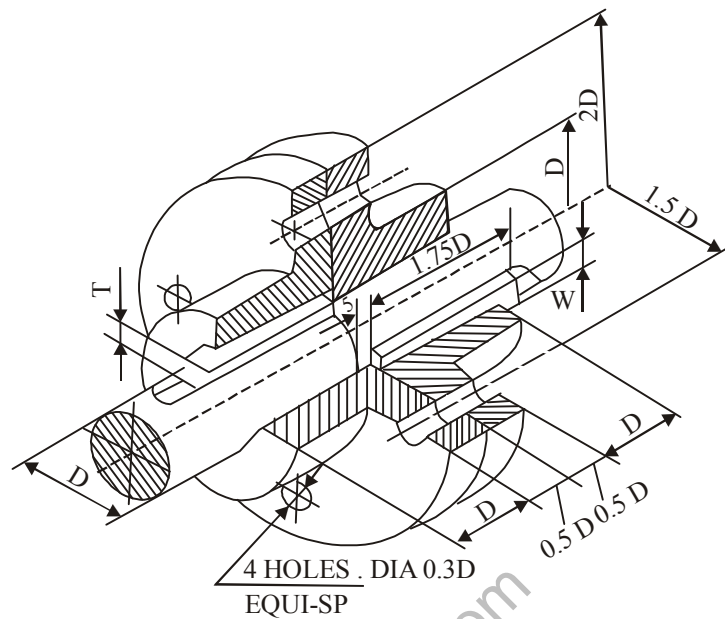
1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.

**SECTION-A****Q1. Write briefly :**

- a. list out the various types of assembly drawings.
- b. List out the various principles to be followed while dimensioning a drawing.
- c. What type of thread is used for the screw jack and lathe lead screw and why?
- d. Why are the annular recesses provided at the side of flanges in a protected flange coupling?
- e. What is the purpose of providing an expansion joint in the pipe line, carrying hot fluids?
- f. How riveted joints are made air-tight?
- g. By what means, the location of a weld is specified?
- h. What is a snug? What is the function of it in the bearing?
- i. What is an unilateral tolerance and a bilateral tolerance?
- j. What is the function of friction clutch?



- Q5. Draw the three views of a hexagonal headed bolt of nominal diameter 25 mm and length 100 mm; with a hexagonal nut and washer.
- Q6. Draw the orthographic projections of flange coupling with suitable diameter of shaft. Assembly is shown in Fig.2.

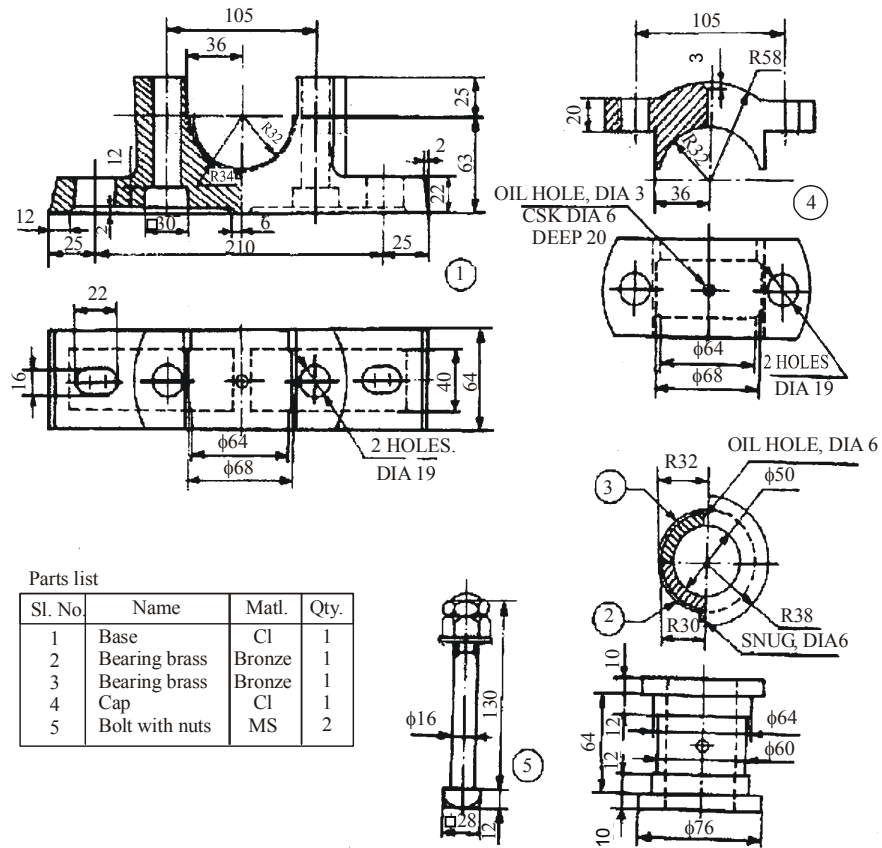


**Fig. 2**

### SECTION-C

- Q7. Draw (a) sectional view from the front and (b) view from above, of the double riveted, double strap, chain butt joint, to join plates of thickness 10 mm.

Q8. Draw the assembly of Plummer block shown in Fig. 3.



**Fig. 4**