

B.Tech. (Sem. - 3rd)
MACHINE DRAWING
SUBJECT CODE : ME-207

Paper ID : [A0804]

[Note: Please fill subject code and paper ID on OMR]

04 Hours

Maximum Marks : 60

to Candidates:

Section - A is Compulsory.

Attempt any Four questions from Section - B.

Attempt any Two questions from Section - C.

Section - A

(10 × 2 = 20)

- a) Differentiate between pitch and lead for a triple start thread.
- b) Make a free hand sketch of the Metric thread profile giving important proportions.
- c) What is the use of Gib in 'Gib and Cotter Joint'?
- d) Draw the symbols along with the illustration for the following welded Joint.
 - (i) Fillet Weld
 - (ii) Convex double-V Butt weld.
- e) Make a free hand sketch of the Rounded countersunk rivet head showing proportions in terms of shank dia D.
- f) Mention any two means for prevention of rotation of brasses in Plummer bearing block.
- g) What necessitates the use of expansion joint?
- h) Differentiate between "Caulking" and "Fullering" in context of rivets.
- i) Which coupling is used for connecting parallel and non-intersecting shafts? Draw free hand sketch for the same.
- j) Differentiate between Basic size and actual size.

Section - B

(4 × 5 = 20)

- Q2)** Draw free hand proportionate and neat sketches for the following :
- (a) Rag Foundation Bolt.
 - (b) Use of SAWN nut as locking device.
- Q3)** Draw the top view of double riveted lap joint (Chain type) for connecting two plates of thickness 9 mm. Use relevant empirical relations and show least 3 rivet heads along each row of rivets.
- Q4)** Figure 1 shows the details of Gib and cotter joint. Assemble the given parts and draw the front view of assembly.
- Q5)** Figure 2 shows the details of Expansion Pipe Joint. Assemble the given parts and draw the full sectional front view of assembly.
- Q6)** Figure 3 shows the details of Solid Flange Coupling. Assemble the given parts and draw the full sectional front view of assembly.

Section - C

(2 × 10 = 20)

- Q7)** Figure 4 shows the details of Plummer Block. Assemble the given components and draw the right half sectional front view of assembly.
- Q8)** Figure 5 shows the details of Screw Jack. Assemble the given components and draw the right half sectional front view of assembly.
- Q9)** Figure 6 shows the details of steam stop valve. Assemble the given components and draw the right half sectional front view of assembly.



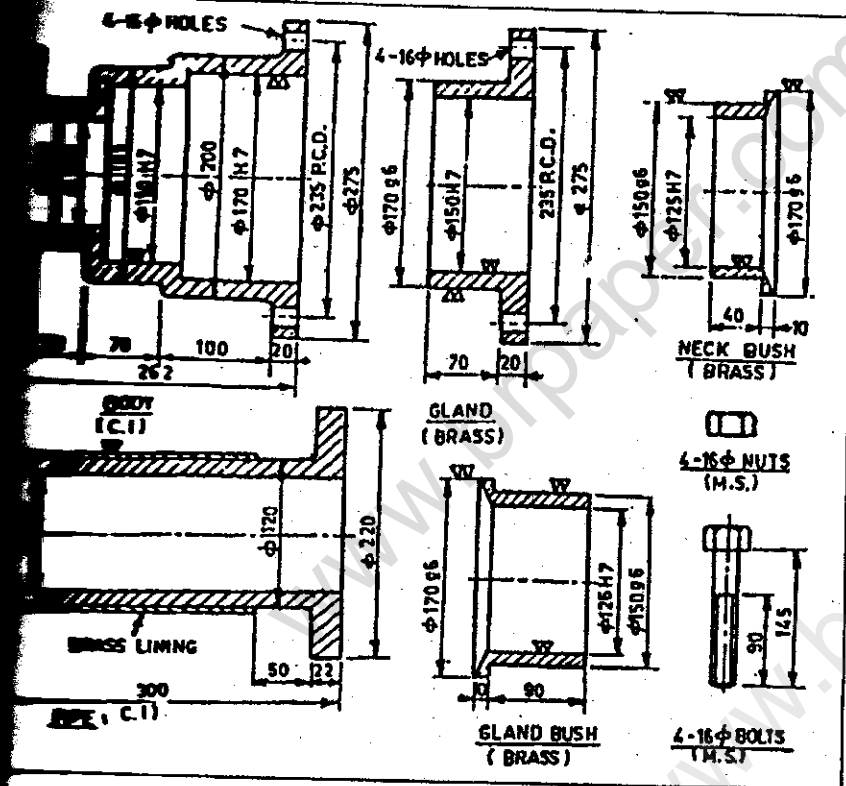
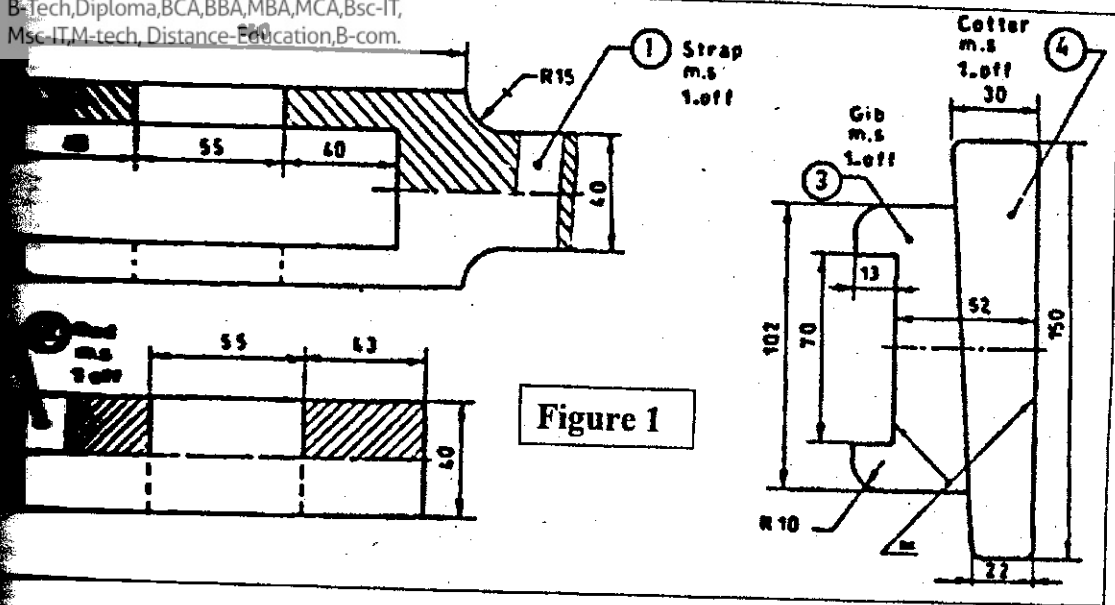


Figure 2

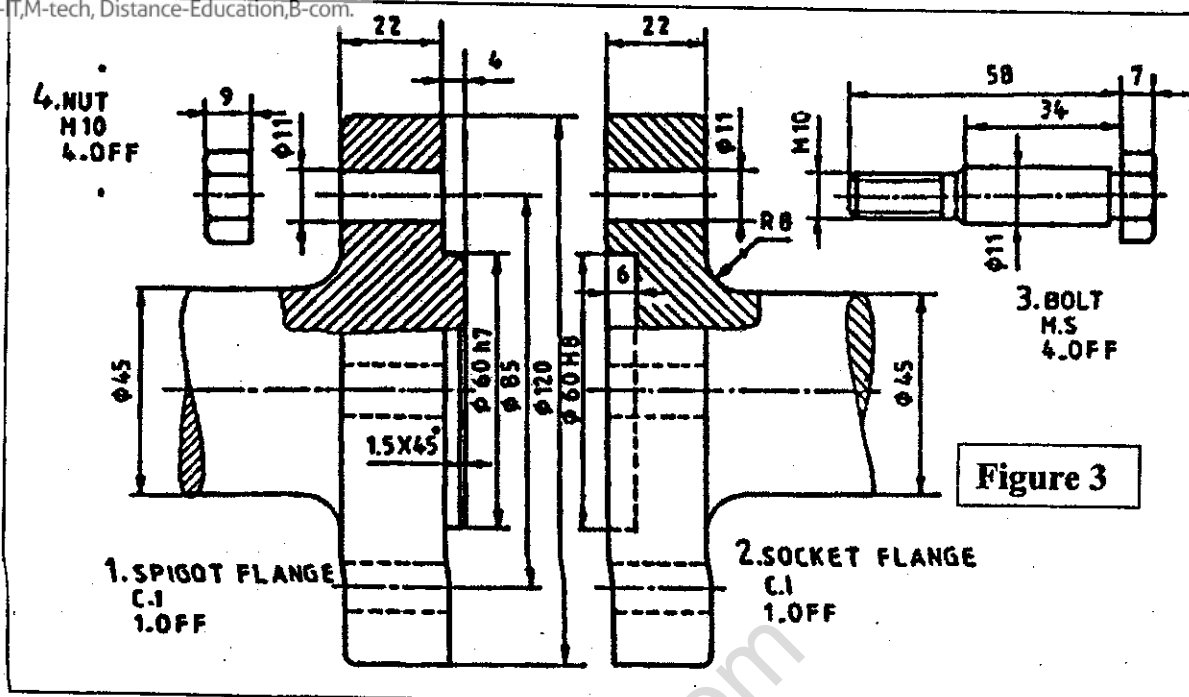


Figure 4

