Roll No. Total No. of Pages: 04

Total No. of Questions: 18

B.Tech. (AE) (2012 to 2017) (Sem.-3)

MACHINE DRAWING

Subject Code: BTAE-306

M.Code : 54114

Time: 3 Hrs. Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

- 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

Answer briefly:

- 1. What is the difference between a rigid and a flexible coupling?
- 2. What is the use of a foot step bearing?
- 3. What is the advantage of Plummer block over a simple bushed bearing?
- 4. Under what conditions do you use a knuckle joint?
- 5. Sketch the basic symbols for Single and Double-V butt welds.
- 6. What are permanent fastenings?
- 7. What is the difference between allowance and tolerance?
- 8. Differentiate between the pitch and lead of a screw thread?
- 9. What is a muff coupling?
- 10 Explain the aligned system of dimensioning.

SECTION-B

- 11. Draw free hand the sectional front view of a union pipe joint.
- 12. Draw free hand upper half sectional front view of a protected type flange coupling on proportionate scale.
- 13. Name the different forms of V- threads and draw the detailed sketch of any one of them.
- 14. Draw free hand the sectional front view of a single plate friction clutch.

15. Draw the top view and sectional front view of a double riveted chain type butt joint clearly showing all the dimensions. Take the diameter of the rivet as 12 mm.

SECTION-C

16. Figure below shows the details of a screw jack. Assemble the parts and draw the full sectional front view.

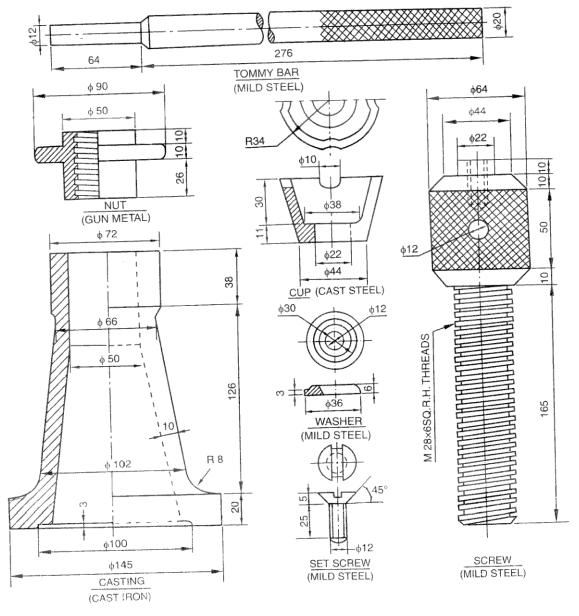


Fig. 1

17. Figure below shows the details of a plummer block. Assemble the parts and draw the full sectional front view.

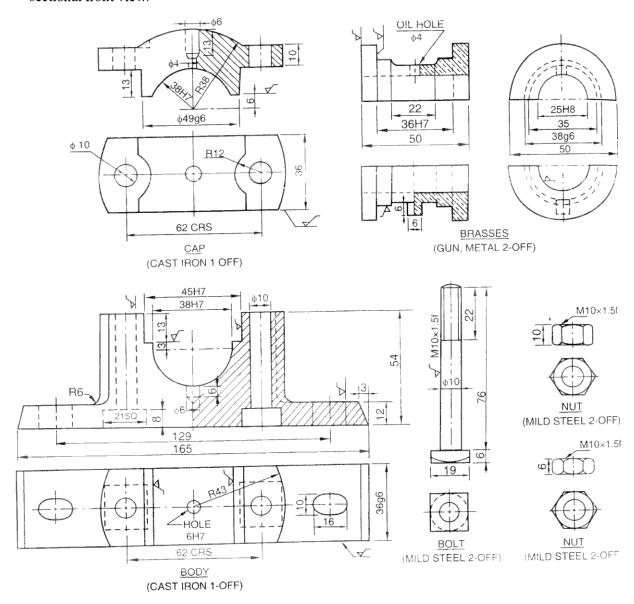


Fig. 2

18. Figure below shows die details of a gib and cotter joint. Assemble the parts and draw the half sectional front view and the top view.

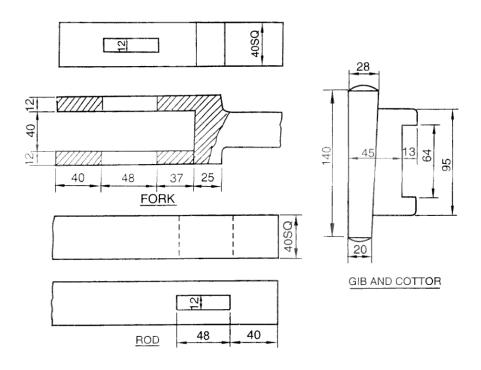


Fig. 3

NOTE: Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.