Roll No. | | | | | | | | | | | | **Total No. of Pages : 04**

Total No. of Questions : 09

B.Tech.(AE/ANE/IE/ME) (Sem.–3rd)

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 has to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.**

SECTION-A

1. Write briefly :

i. Draw the symbol of first angle projections.

ii. Explain requirements of production drawing.

iii. Write note on code IS:296.

iv. Draw free hand sectional front view of woodruff key arrangement.

v. Illustrate interference fit by drawing neat sketch.

vi. What is Oldham's coupling?

vii. What is union pipe joint?

viii. Differentiate between pitch and lead.

ix. Which materials are used to manufacture piston and connecting rod?

x. Name various types of welded joints.

SECTION-B

2) Draw double rivetted zig-zag lap joint of 12mm thick plates using snap headed rivets. Show at least three rivets in the plan view and add a sectional elevation. Mark the dimensions in term of the rivet diameter *d*.

3) Draw the three views of hexagonal headed bolt of size M24. The length of the bolt is 80mm and thread length is 54mm.

4) Draw the free hand sectional front view and side view of cotter joint.

5) Explain various conventional representations used for sectioning.

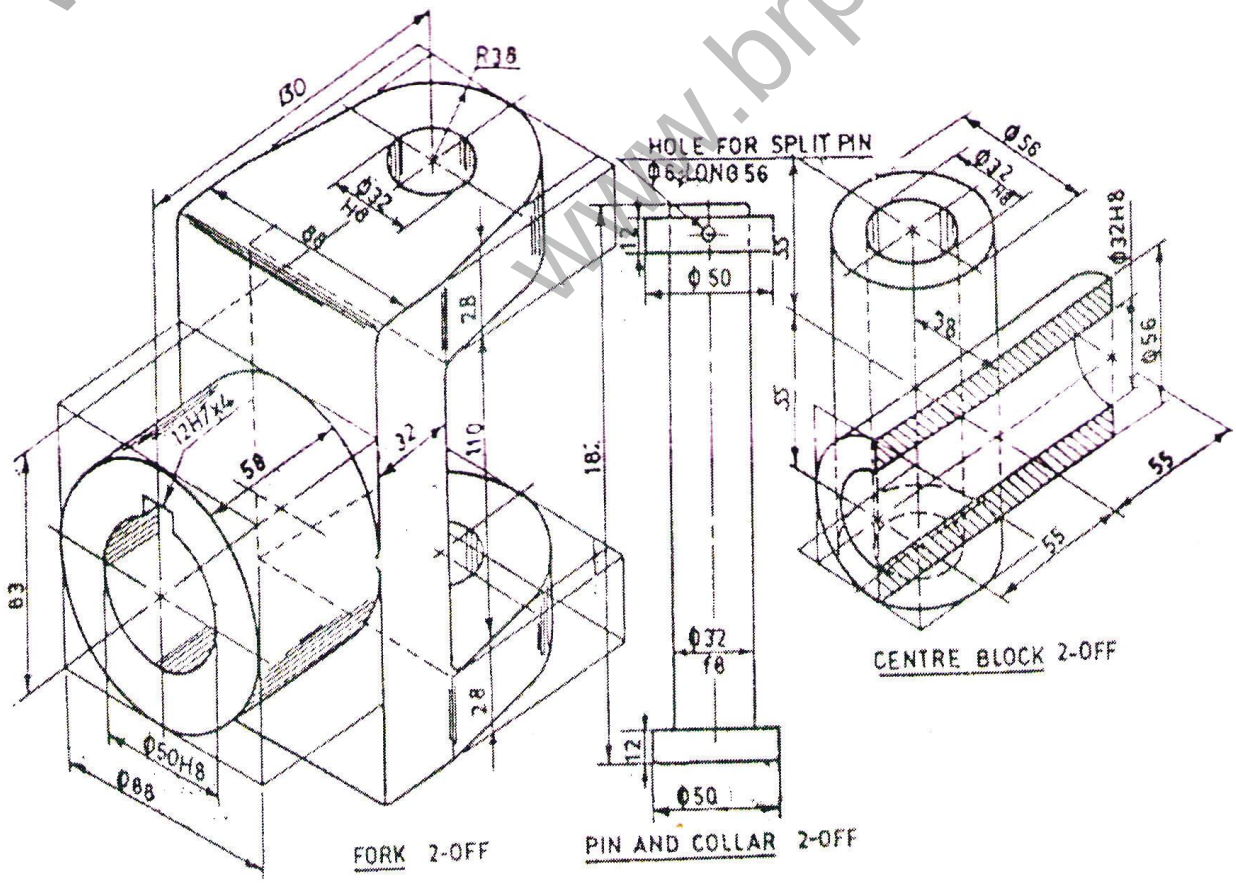
6) Draw free hand sectional front view of pipe flanged joint.

SECTION-C

7) Following figure shows the details of a Hooke's Joint. Assemble the parts and draw the following views :

(a) Front View (Upper Half Section)

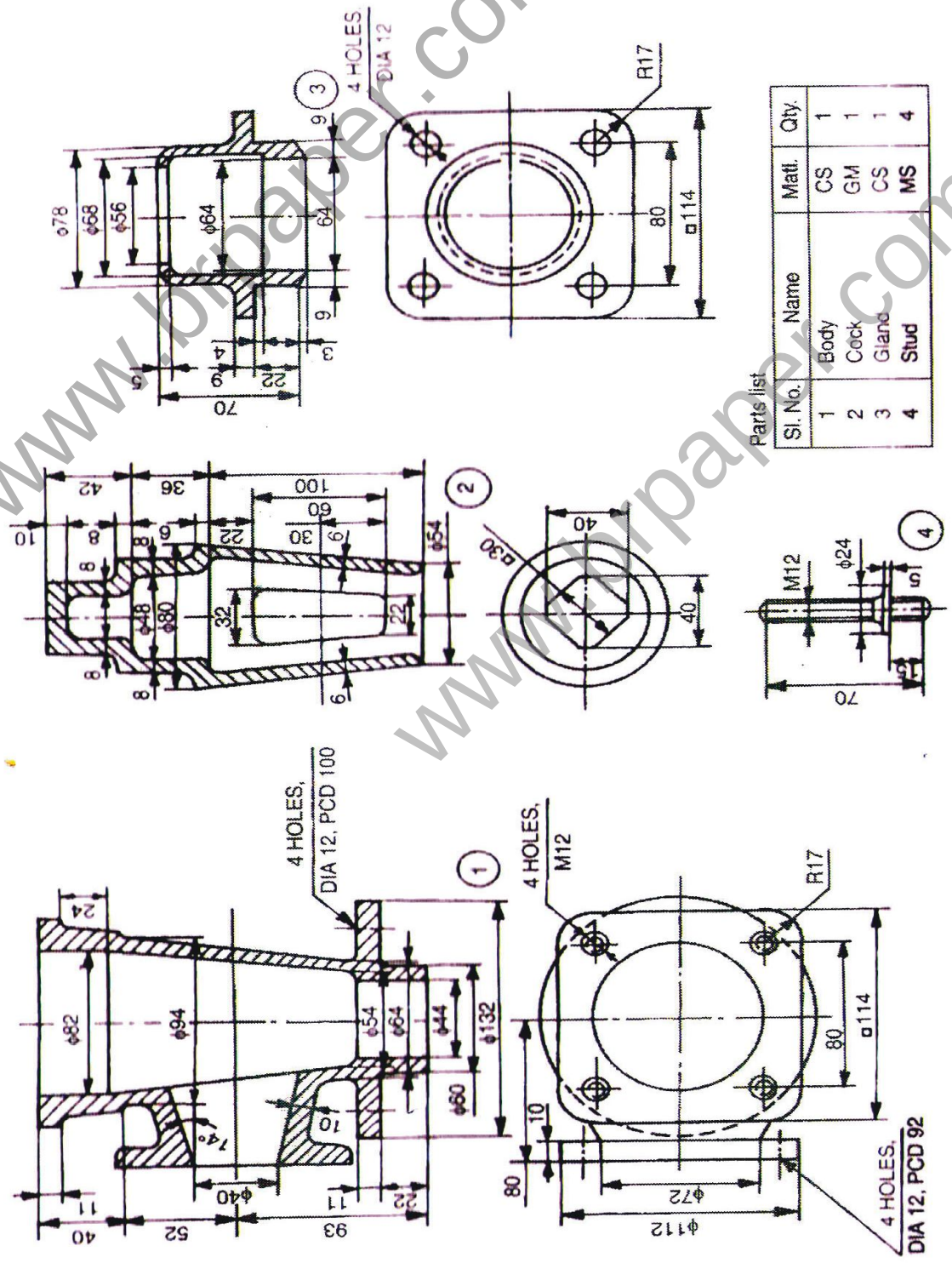
(b) Right Hand Side View



8) Following figure shows the details of a blow off valve. Assemble the parts and draw the following views :

(a) Front View (Left Half Section)

(b) Top View



9) Following figure shows the details of a Screw Jack. Assemble the parts and draw the following views :

(a) Front View (Left Half Section)

(b) Top View