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SE-6017

First Year B. E. (Sem. I & II)
(All Branches) Examination
April / May – 2011
Engineering Drawing

Time : Hours] [Total Marks :

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **First Year B. E. (Sem. I & II) (All Branches)**

Name of the Subject :

☛ **ENGINEERING DRAWING**

☛Subject Code No. : **6 0 1 7** ☛Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

(2) Question **no. 1** and **5** are compulsory.
(3) Attempt any **two** questions from question **no. 2, 3, 4** and any two questions from question **no. 6, 7, 8.**
(4) Assume suitable data if necessary .
(5) No marks for dimensioning.

1 Draw isometric view of a circular lamina (2D) of diameter 50 mm, placed with its surface : **10**
(a) Parallel to H.P.
(b) Parallel to V.P.

2 Refer fig no. 1 and using first angle projection method draw;
(a) Sectional front view **10**
(b) Top view **10**

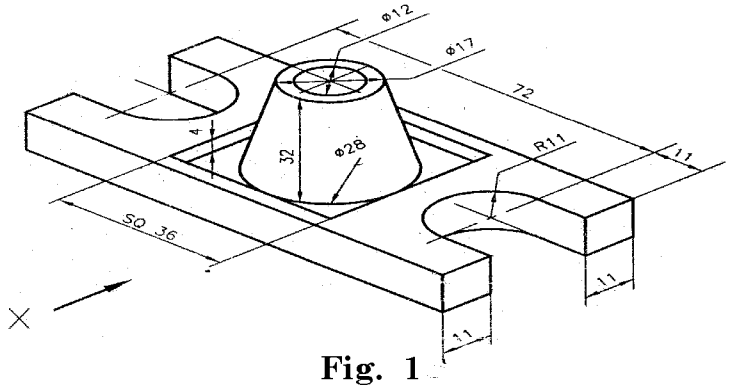

Fig. 1

3 Refer fig no. 2 and draw isometric view. **20**

4 Refer fig no. 2 and draw following missing views :
(a) Right hand side view. **10**
(b) Left hand side view. **10**

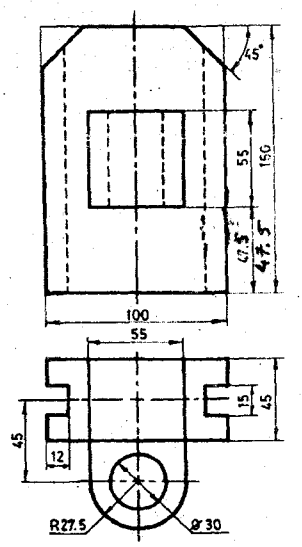

Fig. 2

5 Answer the following questions : **10**
(1) Name the true shape of a cone cut by a plane perpendicular to V.P. and inclined to HP ? Cone is standing on HP. The cutting plane cuts all generators.
(2) The slant height of a cone equals its base circle diameter. What will be its lateral development ?
(3) State any two engineering applications of interpenetration of solids.
(4) State the solids whose surfaces are developed by Radial line method.
(5) Name the true shape of section, when a plane cuts a pentagonal prism perpendicular to the axis.

6 Draw development of lateral surface of a right circular cylinder having base diameter 40 mm and length of axis 60 mm, when it is resting on H.P. and cut by an AIP inclined at 45° to H.P. and bisecting the axis. **20**

7 A triangular prism, with a base side of 50 mm and an axis length of 70 mm, is resting on a rectangular face on the HP, the axis being parallel to the V.P. An AIP inclined at 45° to the HP cuts the prism. The cutting plane intersects the axis at a distance of 30 mm from one end of the prism. Draw front view, sectional top view and sectional side view of the prism. **20**

8 A vertical square prism, base 50 mm side and height 90 mm has a face inclined at 30° to the V.P. It is completely penetrated by another square prism, base 40 mm side and axis 100 mm long, faces of which are equally inclined to V.P. The axis of two prisms are parallel to the V.P. and bisect each other at right angles. Draw the projections showing line of intersection. **20**
