

**B.TECH. SEM -II (2007 COURSE) (ALL BRANCHES) :  
WINTER - 2017**

**SUBJECT: ENGINEERING GRAPHICS – II**

Day : **Friday**  
Date : **24/11/2017**

**W-2017-2351**

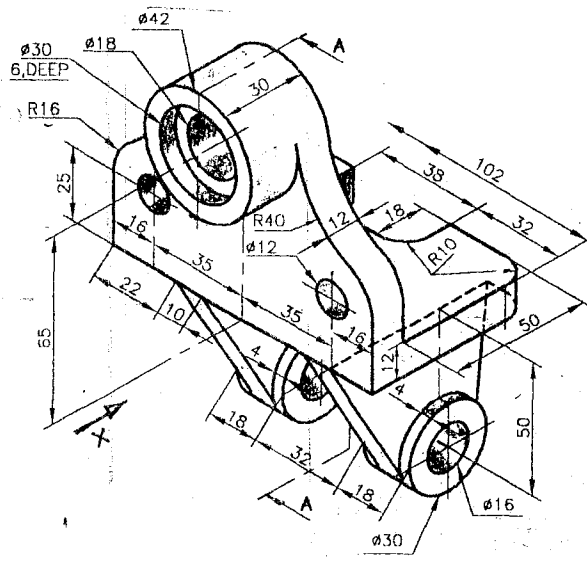
Time : **10.00 AM TO 02.00 PM**  
Max. Marks: 80

**N.B.**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.
- 4) Use of non-programmable calculator is allowed.
- 5) Assume suitable data if necessary.

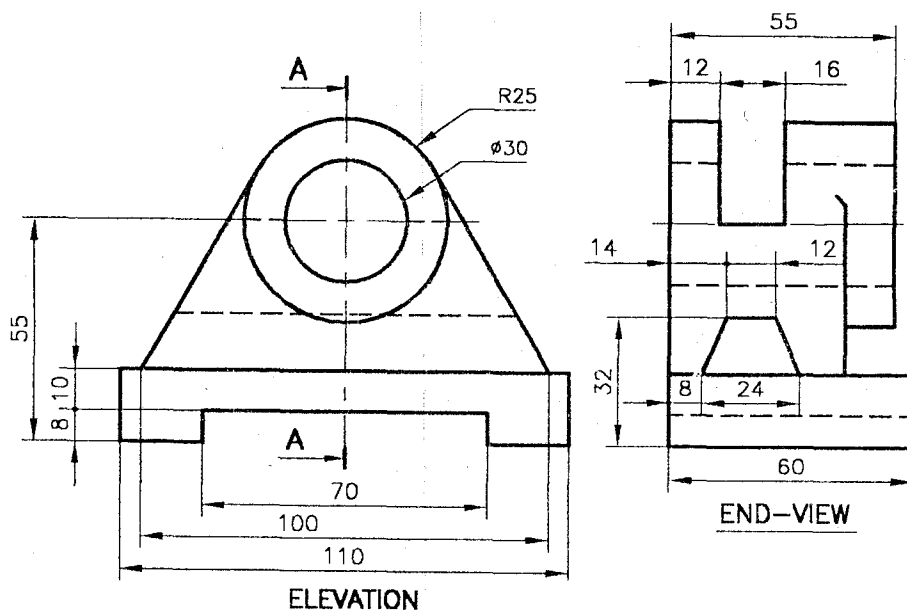
**SECTION – I**

- Q.1** A pictorial view of an “Adjustable SHAFT SUPPORT” is shown in Fig. (13)  
. Draw first angle method of projection.  
i) Front View                      ii) Section right hand side view along A-A



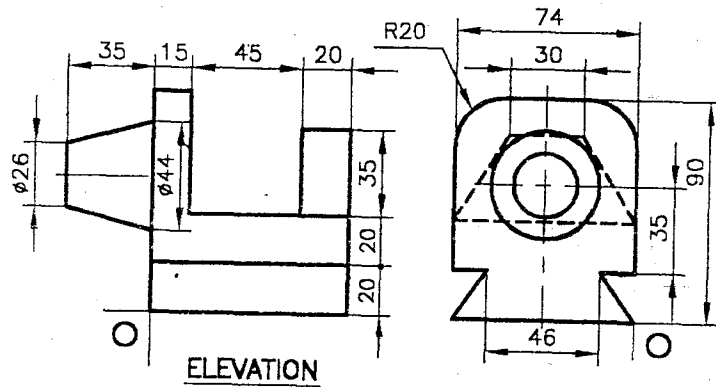
**OR**

- A figure shows elevation and end-view of a C.I. bearing, drawn by first angle method of projection. Draw the following views to full size scale, by the same method of projection:  
i) Given elevation    ii) Sectional en-view, section along A-A and    iii) Plan



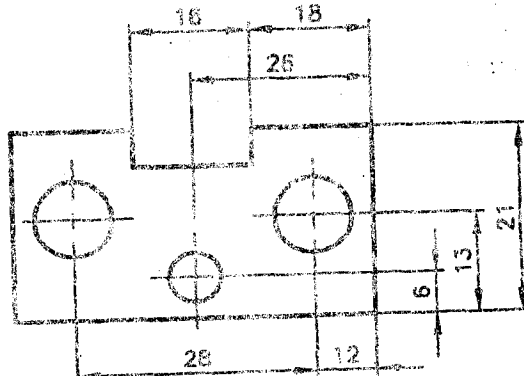
P.T.O.

**Q.2** Figures show views of an object. Draw its Isometric view with 'O' as origin. (14)



**OR**

- A wheel of 42 mm diameter rolls downwards on the vertical wall by half revolution and then on the floor by half revolution without slipping. Draw the locus of point P on the circumference of the wheel with the wall. (07)
- Write the commands required to draw the Fig. by using AUTOCAD. (07)



**Q.3** The end A of a line AB is in H.P. and 25mm in front of V.P. the end B is in the VP and 50 mm above H.P. Distance between the end projectors is 75 mm. Draw the projection of the line AB and determine its T.L., traces and inclinations with the planes. (13)

**OR**

A square plate of 60mm side is resting on the H.P. on one of its corners in such a way that its surface makes an angle of  $45^\circ$  to the H.P. Draw the projections of the square plate when diagonal passing through the corner on the H.P. makes an angle of  $30^\circ$  to the V.P. (13)

**SECTION – II**

- Q.4** A pentagonal pyramid side of base 45 mm and axis length 75 mm is kept on the H.P. on one of its base corners in such a way that the triangular face opposite to that corner is parallel to H.P. Draw the projections of the pyramid when apex is nearest to the observer. (13)

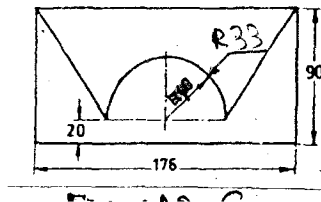
**OR**

- A cone of base diameter 70 mm and axis length 90 mm is resting on its base on H.P. It is cut by a section plane perpendicular to V.P. and parallel to and 15 mm away from one of its end generators. Draw the F.V. sectional T.V. sectional side view and the true shape of the section. (13)

- Q.5** A square pyramid side of base 40 mm and axis length 60 mm is kept on the H.P. on its base with all sides of base equally inclined to V.P. A coaxial square hole of side 25 mm is cut through it. Two rectangular faces of the hole are parallel to V.P. Draw the development of lateral of the pyramid. (14)

**OR**

- Figure shows the development of a cylindrical surface of 90 mm height with a semi-circle and two straight lines unit. Assuming that cylindrical surface is opened along the generator nearest to the observer, draw its three views showing the semi-circle and two line as seen on them. (14)



- Q.6** A cone 85 mm diameter of base and 80 mm height is standing on its base in H.P. A vertical triangular prism of 55 mm sides is penetrated through the cone such that one rectangular face of the prism is parallel to V.P. and away from observer. The axis of the cone and that of the prism coincide. Draw front view, top view and any side view showing curves of inter penetration. (13)

**OR**

- The following figures show the top view of a horizontal cylinder, the axis of which is parallel to V.P. penetrated by a vertical triangular prism. Draw its projections showing curves of intersection. (13)

