FE115

Total No. of Printed Pages:4

F.E. Semester-I (Revised Course 2007-2008)
EXAMINATION Nov/Dec 2019
Engineering Graphics

[Duration : Four Hours] **[Total Marks : 100]**

Instructions:-
1) Answer 5 questions with atleast 1 each module.
2) Assume suitably missing data.

MODULE I

Q.1 a) Construct an ellipse by general method given the distance between the focus and the directrix is 70 mm and eccentricity is 2/3. **(10)**

b) The top view of 75 mm long line AB measures 65 mm while its front view is 50 mm. It's one end A lies in HP and 12 mm in front of VP. Draw the projections of the line. **(10)**

Q.2 a) Draw the projections of a line AB; 90mm long whose end A 20 mm above HP and 10 mm in front of VP. Its midpoint M is 50 mm above HP and 40 mm in front of VP. Find the true inclinations of the line. **(10)**

b) Draw the cycloid formed by a point P on a circle of diameter 50 mm rolls on a horizontal line without slipping. **(10)**

MODULE II

Q.3 a) A thin semicircular plate of diameter 60mm has its edge in the VP and inclined at 40 ° to HP. The surface of the plate makes an angle of 30 ° with VP. Draw the projections of the plate. **(10)**

b) Draw the projections of a hexagonal prism side of base 40mm and axis 70mm standing on an edge of the base on the ground making an angle of 30 ° with VP and the axis inclined at 60 ° to HP. **(10)**

Q.4 a) Draw the projections of Rhombus having diagonals 100mm and 40mm long. The larger diagonal is inclined at 30 ° to HP with one of the end points in HP and the smaller diagonal is parallel to both the primary reference planes. **(10)**

b) Draw the projections of cone, base circle diameter 40mm and axis 70mm standing on a point on the circumference of the base on the ground with its axis inclined at 30 ° to HP and 45 ° to VP. **(10)**

MODULE III

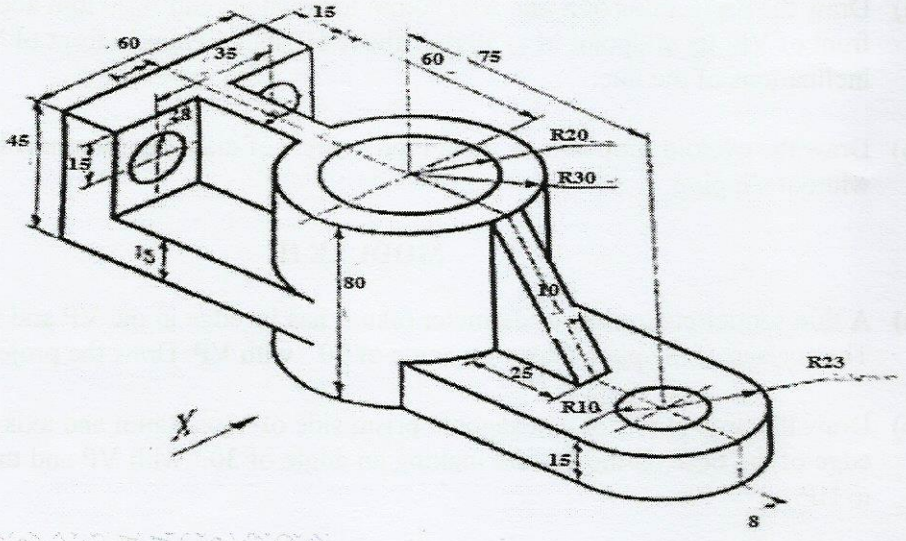
Q.5 A hexagonal Pyramid base 30mm side and axis 60mm long has a triangular face on the HP and the axis parallel to VP. It is cut by a horizontal section plane which bisects the axis. Draw the front view and sectional top view and develop the surface of the cut pyramid. **(20)**

Q.6 a) A cylinder base circle diameter 50mm and axis 80 mm long is standing on its base on the ground. It is cut by an auxiliary inclined plane bisecting the axis of the cylinder in such a way that the true shape of the section is an ellipse with major axis 70mm. Draw the FV, sectional TV and true shape of the section. **(10)**

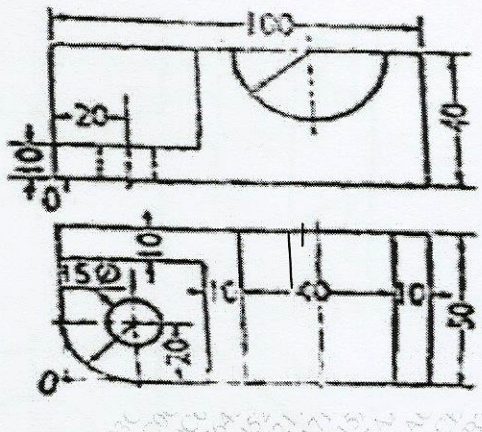
b) A cone, base circle diameter 40mm and axis 70mm is standing on its base on the ground. It is cut by auxiliary inclined plane inclined at 60 ° to HP and bisecting the axis of the cone, removing the portion containing the apex. Draw the development of remaining portion of the cone. **(10)**

MODULE IV

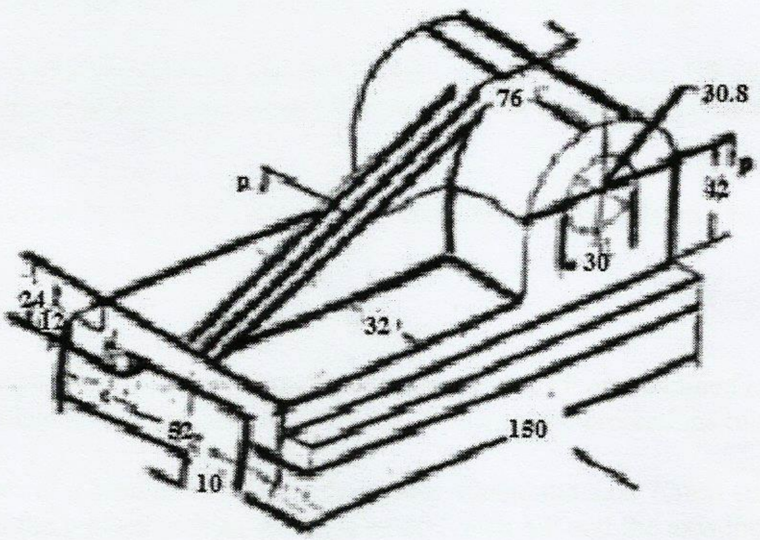
Q.7 a) Draw the sectional front view and Top view for the figure shown below. **(10)**



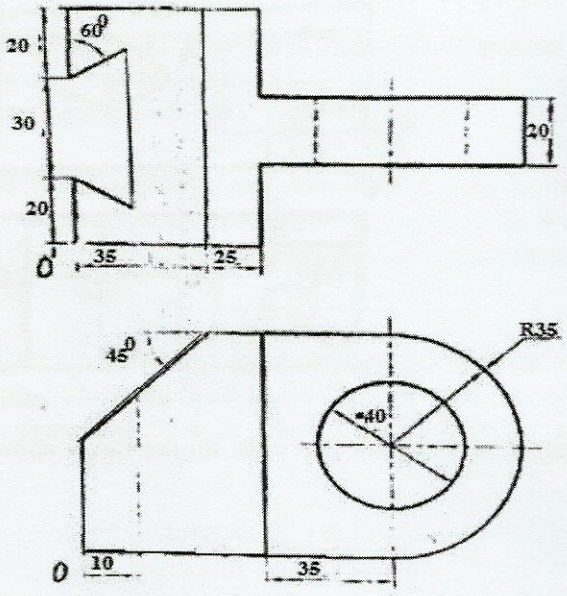
b) Draw the Isometric view for the orthographic views given below. **(10)**



Q.8 a) Draw the sectional front view and Top view for the figure shown below. **(10)**



b) Draw the Isometric view for the orthographic views given below. **(10)**


60°
20
30
20
20
35
25
45°
R35
Ø40
10
35