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SUBJECT CODE NO: E-209
FACULTY OF ENGINEERING AND TECHNOLOGY
F.E.(All) (CGPA) Examination Nov/Dec 2017
Engineering Graphics
(REVISED)

[Time: 4:00 Hours]

[Max.Marks:80]

Please check whether you have got the right question paper.

N.B

- i) Solve any Three questions from each section.
- ii) Assume suitable data if necessary and mention it clearly.
- iii) Figures right indicate full marks.

Section A

- Q.1 Line PQ 70mm long has its end P is in H.P and 20mm in front of V.P the end B is in the Third quadrant. The Line is inclined at 30° to the H.P and at 60° to the V.P. Draw its projections and Find Apperent angles and HT,VT. 13
- Q.2 The distance between end projectors of line AB is 70mm and projectors through the traces are 110mm apart. The end point A of a Line is 10mm above H.P. if Top view and Front view of line makes 30° to 60° with x-y line resp. draw projections of line and determine True inclination with H.P and V.P and Traces. 13
- Q.3 Draw the projections of rhombus having diagonals 150mm and 60mm long, the smaller diagonal of 13 which is parallel to both the principle planes, while the other is inclined at 30° to the H.P
- Q.4 A hexagonal prism, base 30mm side and axis 70mm long has an edge of the base parallel to the H.P 14 and inclined 45° to the V.P its axis makes an angle of 60° to the H.P draw its projections.
- Q.5 Cone of base 75mm diameter and axis 100mm long, has its base on the H.P. A section plane, 13 parallel to one of the generators and perpendicular to the V.P cuts the cone intersecting the axis at a point 70mm from the base. Draw the sectional top view and true shape of section.

Section B

- Q.6 Pictorial view of an object is as shown in fig 6.1 Draw its 13
- i) Front view in the direction of X
 - ii) Top view
 - iii) Side view from right

2017

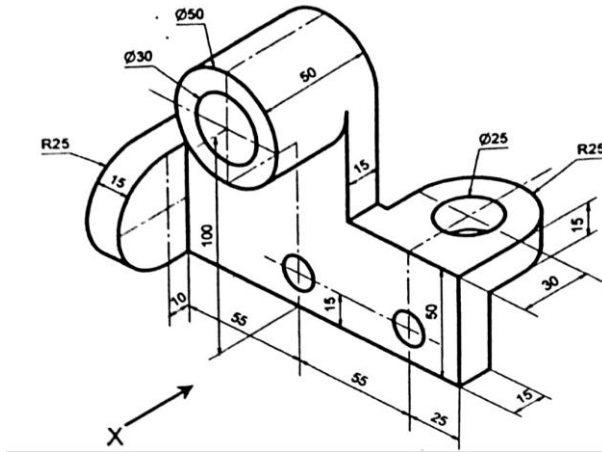


Fig. 6.1

Q.7 Fig 7.1 shows the F.V and S.V of an object draw its isometric view.

13

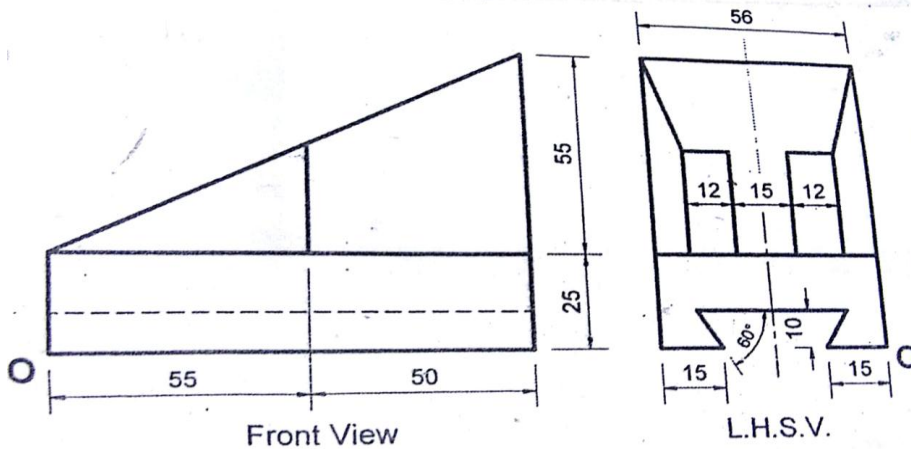


Fig. 7.1

Q.8 Pictorial view of an object is as shown in fig 8.1 Draw its

14

- i) Sectional F.V along A-A in the direction of X
- ii) Top view.
- iii) Side view from Left

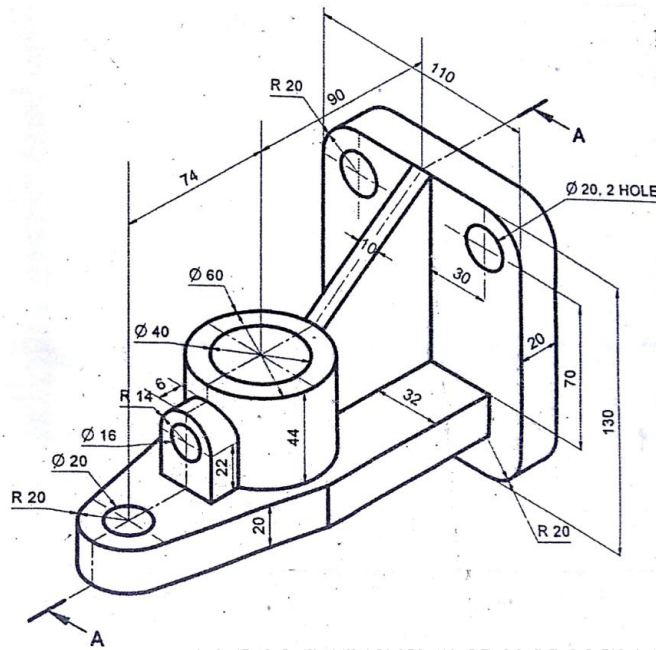


Fig. 8.1

Q.9 Solve any two of the following

13

- i) The major axis of an ellipse is 100mm long and foci are at 15mm from its ends. Find minor axis and draw the ellipse by 'arc of circle' method. Also draw tangent and normals at any point on the curve.
- ii) A circle of 40mm diameter rolls on the inside of a circle of 90mm diameter. Draw the path of the point on the circumference of the rolling circle for its complete revolution.
- iii) The vertex of curve is 60mm from its focus. Draw and name the curve if the eccentricity is $\frac{3}{2}$. Draw tangent and normals at a point on the curve 70mm from the directrix.

Q.10 Draw free hand sketches of the following machine parts (any three)

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- i) Eye foundation bolt
- ii) Hexagonal nut and bolt
- iii) ACME Thread
- iv) Double-Riveted (chain) Lap joint
- v) Wing Nut