

SUBJECT CODE NO:- P-27
FACULTY OF ENGINEERING AND TECHNOLOGY
F. E. (All) (CGPA) Examination May/June 2017
Engineering Graphics
(Revised)

[Time: Four Hours]

[Max.Marks:80]

Please check whether you have got the right question paper.

- N.B
- 1) Solve any three questions from each section.
 - 2) Assume suitable data if necessary and mention it clearly.
 - 3) Figures to right indicate full marks.

Section A

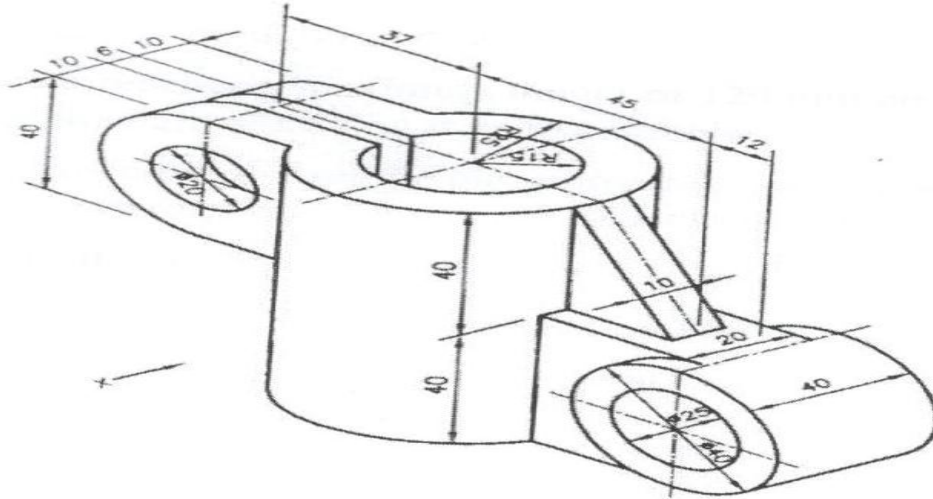
- Q.1 The distance between end projectors of straight line AB is 35 mm. Its end A is 10mm above HP & 20 mm in front of VP. The other end B is 45 mm above of HP & 70 mm in front of VP. Draw the projections of line AB find its inclination with HP & VP. 13
- Q.2 Line MN is inclined at 30° to F.R.P. End M is in H.P. It has its front view length of 70mm and top view length of 60mm. The H.T. is 25 mm behind V.P. Draw the projections of line MN, when the line is in third quadrant. Find true length and true inclination with H.P. Locate V.T. 13
- Q.3 A thin rectangular plate of side 60×30 mm has its shorter side in the VP & inclined at 30° to the H.P. Draw the projection if its front view is square of 30 mm long side. 13
- Q.4 A right circular cone diameter of base circle 70mm and axis 100mm long rests on a point of its rim of base circle on H.P. With the apex 65mm above H.P. The axis of the cone makes an angle of 45° with the V.P. Draw the projection when the apex is towards V.P. 14
- Q.5 A pentagonal pyramid side of base 50mm and axis 90mm, rests with its base on H.P. and one of the edges of the base perpendicular to V.P. it is cut by a section plane inclined at 45° to H.P. and perpendicular to V.P. and cutting the axis at a point 25mm from the apex. Draw its F.V., sectional T.V and true shape of the section. 13

Section B

Q.6 Pictorial view of an object is shown in Fig. 6.1. Draw its:

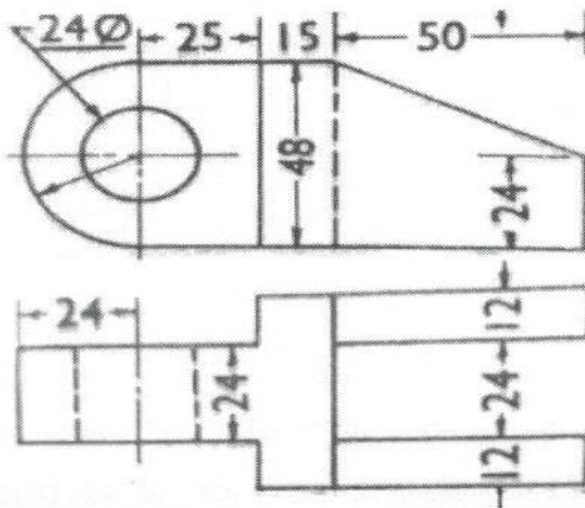
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- i. Front view in the direction 'X'
- ii. Top view and
- iii. Side view from right.



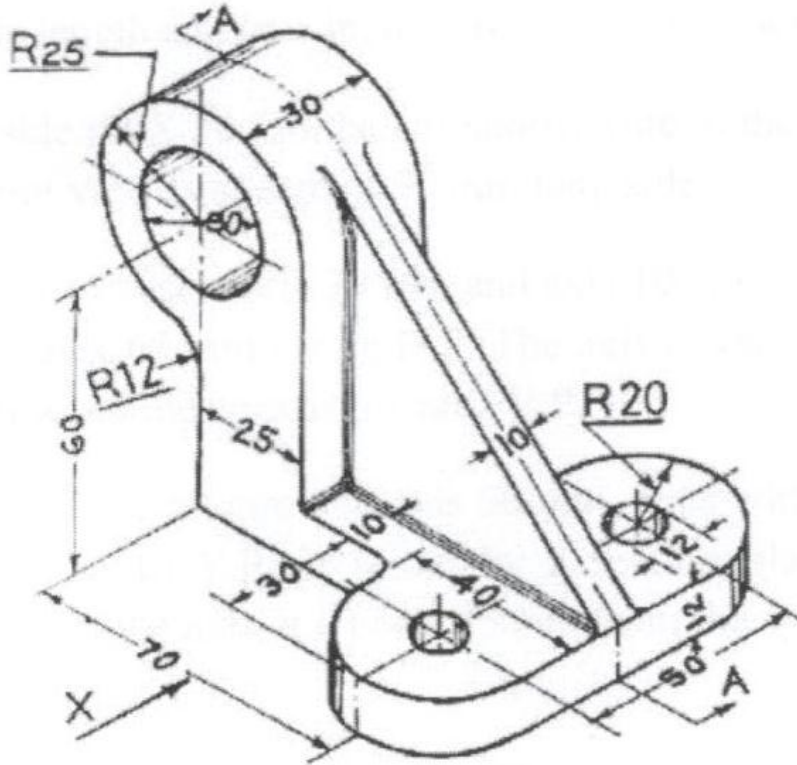
Q.7 Fig 7.1 shows the F.V and T.V of an Object, draw its Isometric view.

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- Q.8 Pictorial view of an object is shown in fig. 8.1. Draw its:
- Sectional F.V. along A – A in the direction 'X'
 - Top view and
 - Side view from right.

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- Q.9 Solve any two of the following

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- Construct an ellipse whose eccentricity is $\frac{3}{4}$ and distance of focus directrix is 70mm. Also draw tangent and normal at any point on the curve.
- A ball thrown up in the air reaches a maximum height of 120 mm and travels a horizontal distance of 80mm. Trace the path of the ball, assuming it to be parabolic.
- Draw a curve traced out by a point P on the circumference for one complete revolution of the circle. This circle of diameter 45mm rolls along a straight line without slipping.

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

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- British association thread
- Eye foundation bolt
- Acme thread
- Hexagonal nut and bolt
- Rag foundation bolt