Total No. of Printed Pages:3

SUBJECT CODE NO:- H-313
FACULTY OF SCIENCE AND TECHNOLOGY
F.E. (All)
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 table data if necessary and mention it clearly.
3. Figures to right indicates full marks.

Section A

Q.1   Top view of line AB measures 60MM and inclined to the reference line at 60°. The end point A   13
is 15mm above the H.P and 20mm in front of V.P Draw the projection of line when it is inclined
at 45° to The H.P find True length and inclination of line with V.P.

Q.2   The front view of line AB measures 70mm and makes an angle of 45° with X-Y. A is in H.P and   13
VT of line is 15mm below H.P The line is inclined 30° to the V.P draw the projection of line AB
and find its true length inclination with H.P and its H.T.

Q.3   Draw the projection of circle of 80mm diameter resting on the H.P on a point A of the   13
circumference. It is inclined to the H.P such that the plan is an ellipse of minor axis 50mm. The
plane of the diameter through A is making an angle of 45° with V.P measure the angle of plane
with H.P.

Q.4   A right regular hexagonal pyramid, side of base 40mm and axis 80mm is resting on corner of its   14
base In H.P in such a way that its apex 55mm above H.P and plan of the axis makes 45° with
V.P.

Q.5   A pentagonal pyramid side of base 30mm and axis 80mm long, is resting on its base in H.P with   13
edge of base parallel to the V.P it is cut by a section plane perpendicular to V.P and inclined 60°
to the H.P and bisecting the axis. Draw the front view, sectional top view and True shape of
section.

Section B

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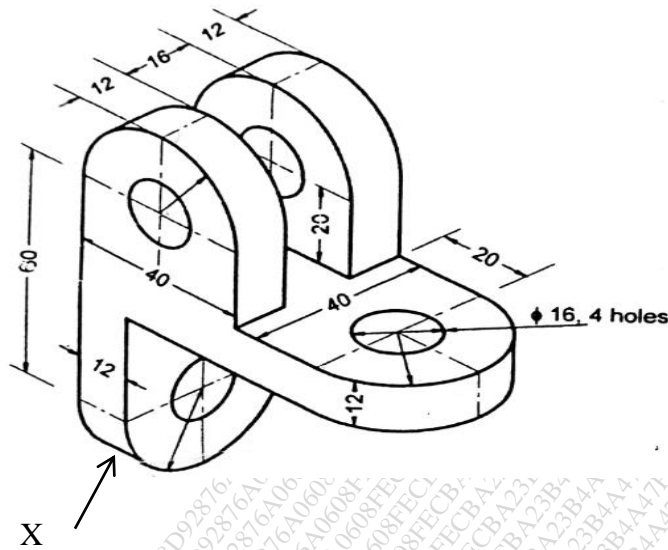ii)   Top view
iii)   Side view from right

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X

fig. 6.1

Q.7   Fig. 7.1 shows the F.V and T.V of an object, draw its Isometric view.   13

30

50

45°

10

20

F.V.

30   20

R 15

10   50

20

100

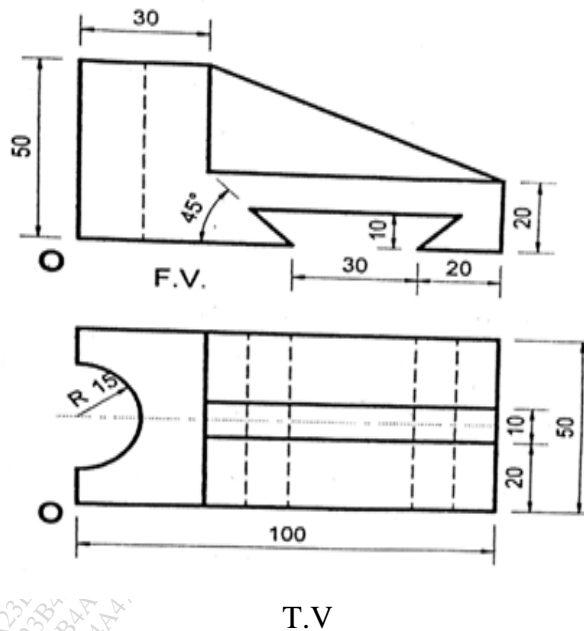T.V

Fig. 7.1

Q.8   Pictorial view of an object is shown in fig. 8.1 draw its   14
i)   Sectional F.V along A-A in the direction of – X
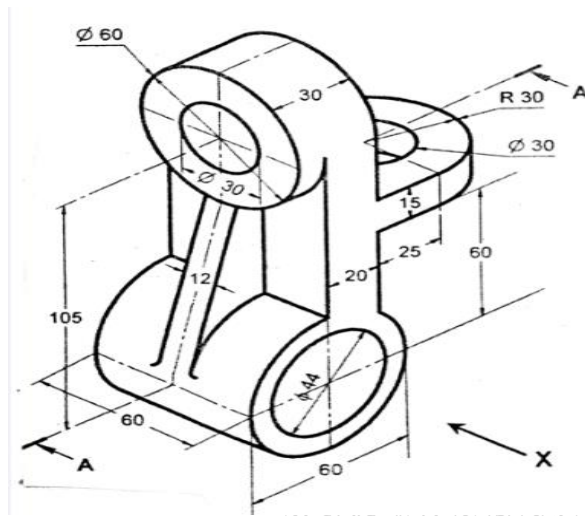ii)   Top view
iii)   Side view from left

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fig. 8.1

Q.9   Solve any two of the following   13
   i)   The distance between the foci of an ellipse is 120mm and the minor axis is 75mm long draw an ellipse by any method and show tangent and Normals at any point on the curve.
   ii)   A circle of 60mm diameter rolls on horizontal line for half revolution then on vertical line for another half revolution draw the curve traced out by a point 'P' on the circumference of circle.
   iii)   A point P is 40mm and 60mm respectively from two straight lines which are at right angles to each other. Draw the curve passing through the point P within 10mm distance from each line.

Q.10   Draw free hand sketches of the following machine parts (any three)   13
   i)   Double – Riveted (zig – zag) lap joint.
   ii)   Rag foundation bolt
   iii)   Square Headed bolt
   iv)   Rock nut
   v)   Whitworth thread.