DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE – RAIGAD -402 103

Summer Semester Examination, May 2018

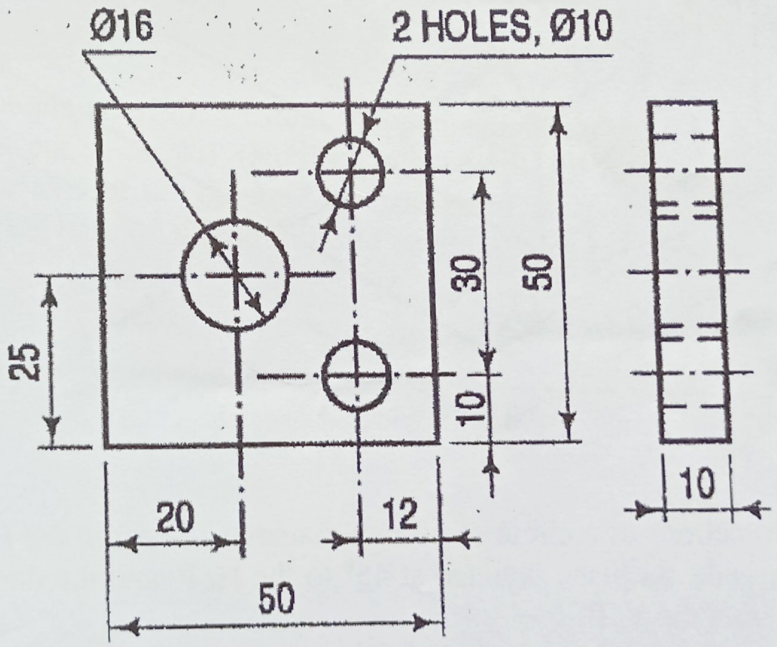
Branch:	**B. Tech.**	**Semester:**	**II**
Subject:	**Engineering Graphics**	**Marks:**	**60**
Subject Code:	**ME204**		
Date:	**21/05/2018**	**Time:**	**4 Hrs.**

Instructions to the Students:

1. Each question carries 12 marks.
2. Attempt **any five** questions out of the following six questions.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly

---

Q.1 a) Identify the mistakes made, if any, while showing the dimensions in the following figure and redraw the figure. **(6)**

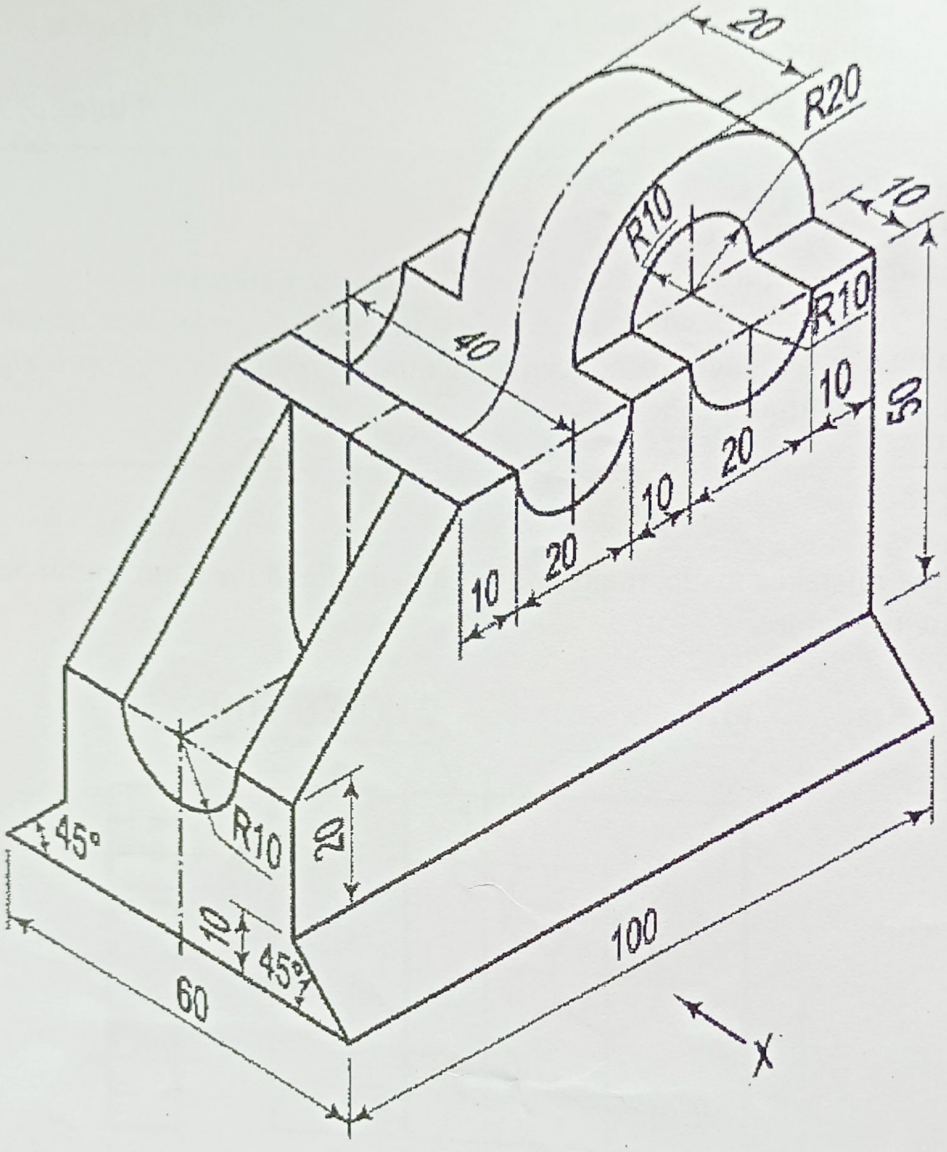


b) Inscribe a regular dodecagon (polygon having 12 sides) in a circle of diameter 70 mm. **(6)**

Q.2 Draw the following views of the object (in X – direction) shown below, by using first angle projection method.

a) Front View (6)

b) Top View (6)



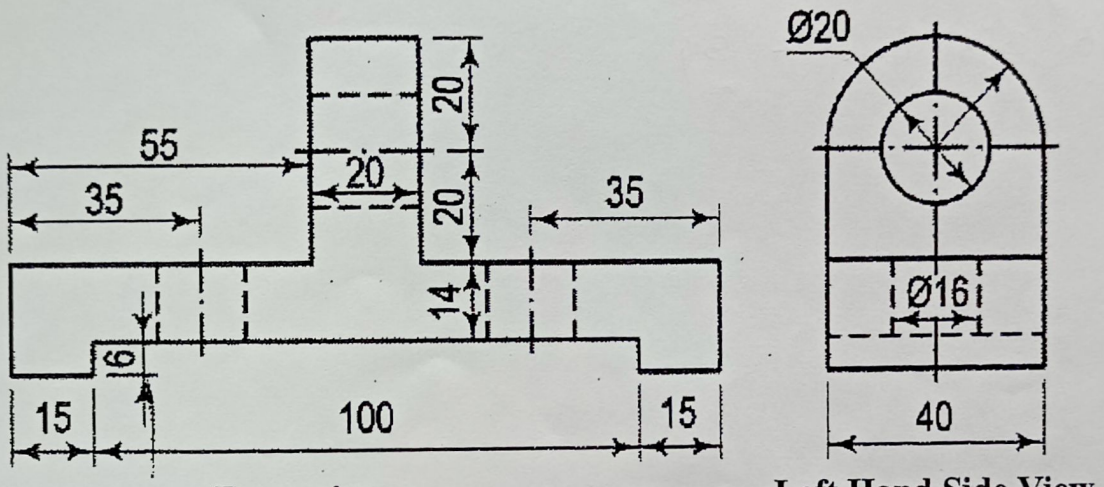
Q.3. Draw the projections of a circle of 60 mm diameter resting in the H. P. on a point A on the circumference, its plane inclined at 45^0 to the H. P. and the diameter AB making an angle of 30^0 with the V. P. (12)

Q.4 A pentagonal prism is resting on one of the corners of its base on the H.P. The longer edge containing that corner is inclined at 45^0 to the H.P. The top view of the axis of the prism makes an angle of 30^0 with the V.P. Draw the projections of this solid having side of base as 45 mm and height of 70 mm. (12)

Q.5. A hexagonal pyramid, base 30 mm side and axis 65 mm long, is resting on its base on the H.P. with two edges parallel to the V.P. It is cut by a section plane, perpendicular to the V.P. inclined at 45° to the H.P. and intersecting the axis at a point 25 mm above the base. Draw the front view, sectional top view, sectional side view and true shape of the section. **(12)**

OR

Q.5 Draw the isometric view of the following casting. **(12)**



Front view **Left Hand Side View**

Q.6. Draw the development of the frustum of a pentagonal pyramid, which is resting on H.P. The pyramid is cut by an AIP (auxiliary inclined plane) inclined at 60^0 to the H.P. and intersecting the axis of the pyramid at distance of 30 mm from apex. The pentagonal pyramid is having base of 30 mm side and height of 60 mm. **(12)**

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Supplementary Examination – December - 2018

Course: B. Tech **Sem.: I**
Subject with Subject Code: Engineering Graphics (ME104/204) **Marks: 60**
Date: 08/12/2018 **Time: 4 Hrs**

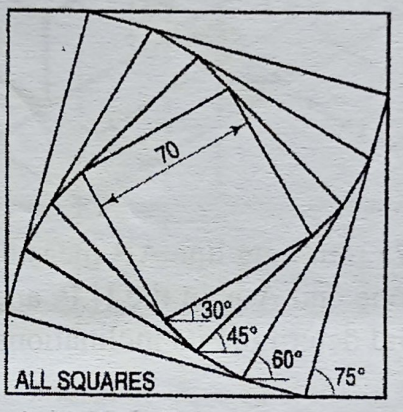
Instructions to the Students

1. Each question carries 12 marks.
2. Attempt **any five** questions of the following.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly

---

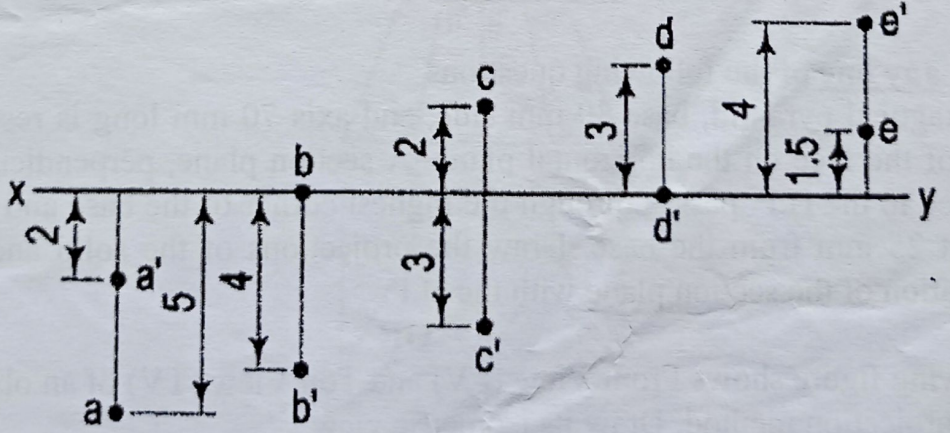
(Marks)

Q.1. a) Redraw the following figure (dimension is given in mm). (6)



b) What are the two systems of placing dimensions on a drawing? Illustrate your answer with sketches. (6)

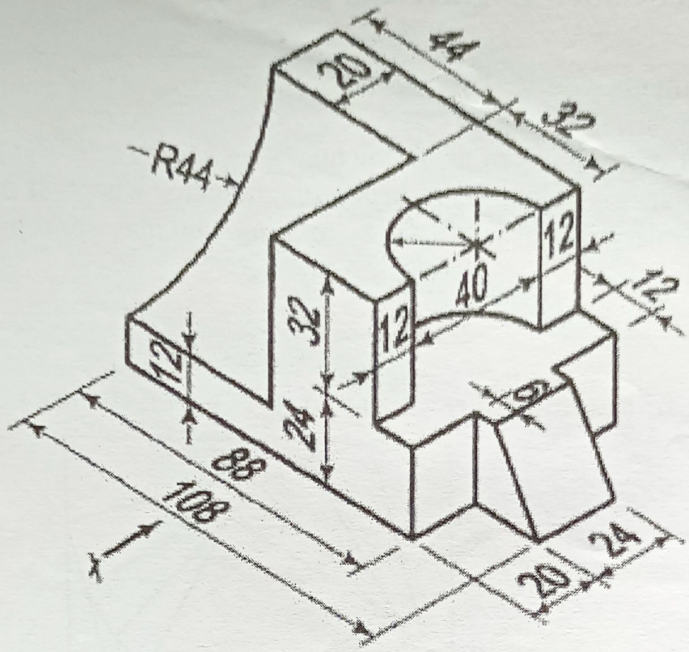
Q.2. a) Projections of various points are given in following figure. State the position of any four points with respect to the planes of projection, giving the distances in centimetres. (4)



b) Draw the following views of the object shown in the following figure in the X direction.

i) Front view (4)

ii) Top view (4)



Q.3. a) The top view of 75 mm long line AB measures 65 mm, while the length of its front view is 50 mm. Its one end A is in the H.P. and 12 mm in front of the V.P. Draw the projections of AB and determine its inclinations with the H.P. and the V.P. (6)

b) Draw the projections of a circle of 50 mm diameter having its plane vertical and inclined at 30° to the V.P. Its centre is 30 mm above the H.P. and 20 mm in front of the V.P. (6)

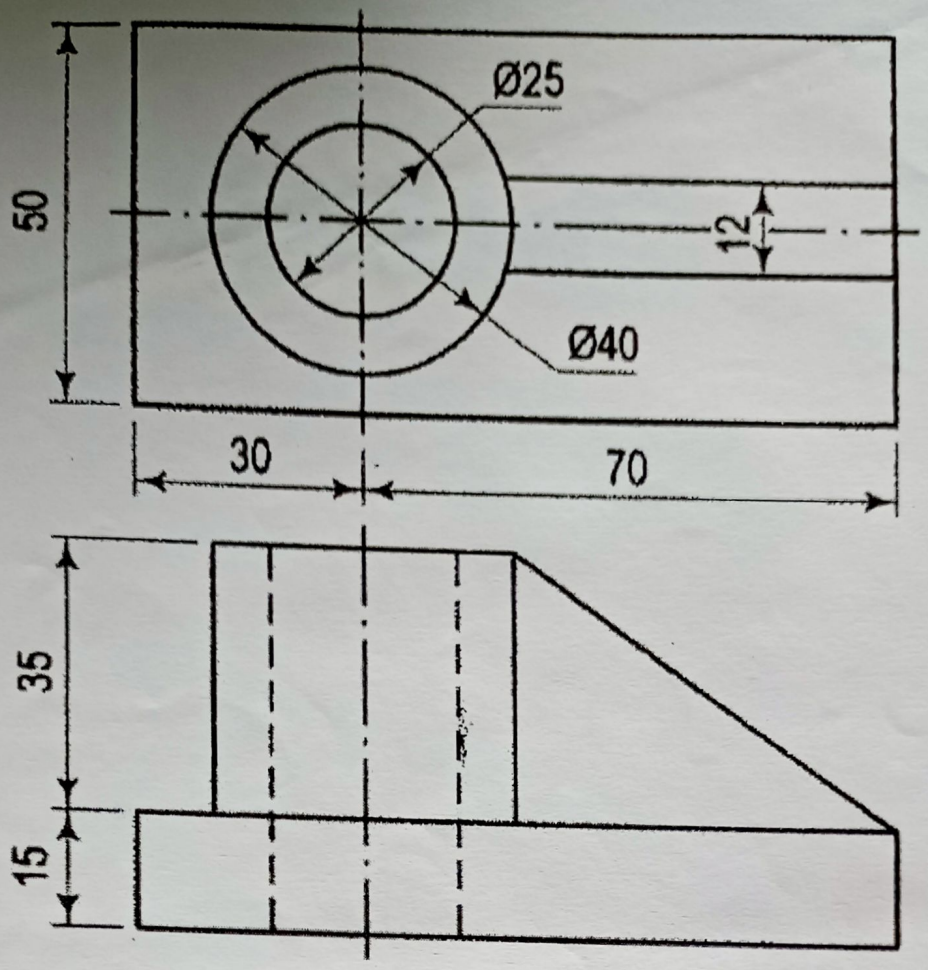
Q.4. Draw the projections of a pentagonal prism, base 25 mm side, and axis 50 mm long, resting on one of its rectangular faces on the H.P. with the axis inclined at 45^0 to the V.P. (12)

Q.5. Solve **any one** of the following questions (12)

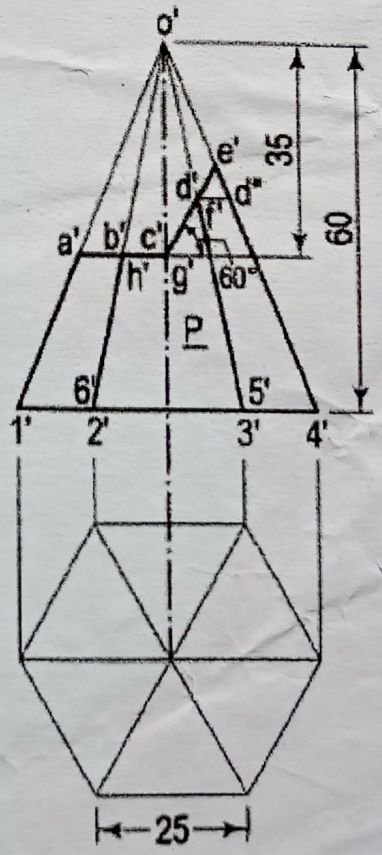
A hexagonal pyramid, base 30 mm side, and axis 70 mm long is resting on its slant edge of the face on the horizontal plane. A section plane, perpendicular to the V.P., inclined to the H.P. passes through the highest corner of the base and intersecting the axis at 25 mm from the base. Draw the projections of the solid and determine the inclination of the section plane with the H.P.

OR

Following figure shows Front View (FV) and Top View (TV) of an object by third angle projection method. Draw its isometric view.



Q.6. Draw the development of the lateral surface of the part P of the hexagonal pyramid shown in fig. (12)



DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE – RAIGAD -402 103

End Semester Examination – December 2018

Course: B. Tech **Semester:** I

Subject: Engineering Graphics (EG1203)

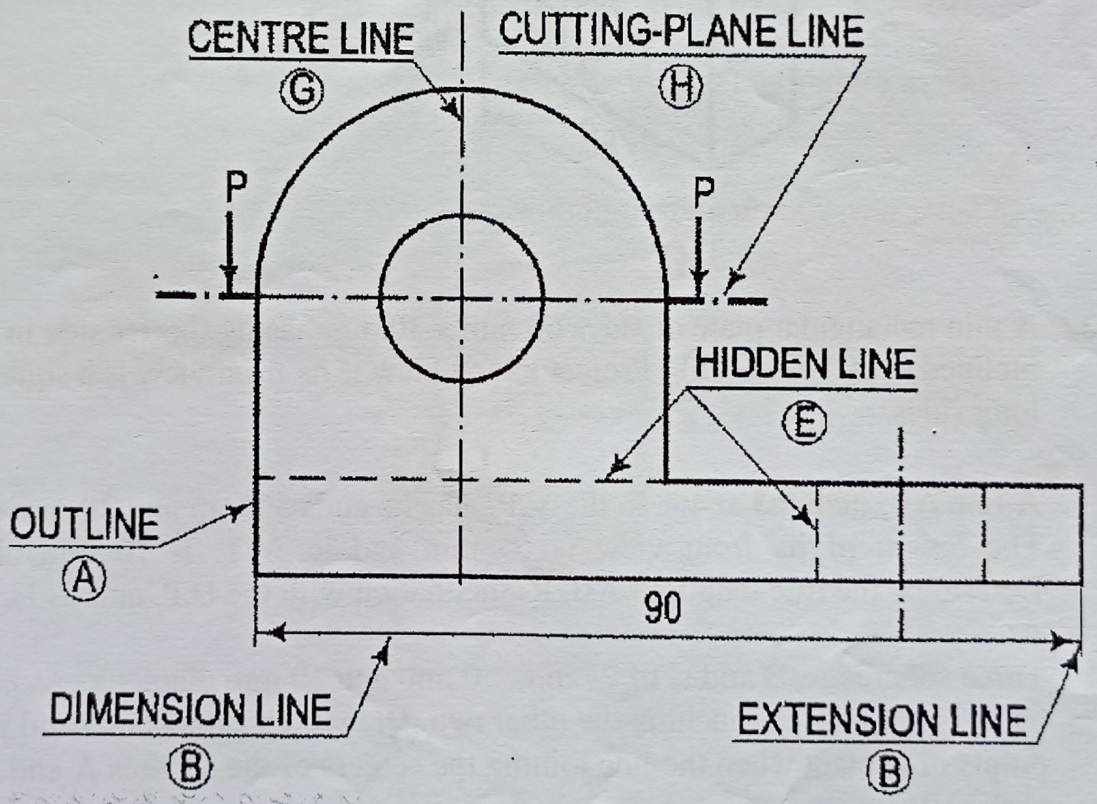
Date: 20/12/2018 **Marks:** 60 **Time:** 4 Hrs.

Instructions to the Students

1. *Each question carries 12 marks.*
2. *Attempt **any five** questions out of the following six questions.*
3. *Illustrate your answers with neat sketches, diagram etc., wherever necessary.*
4. *If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly*

(Marks)

Q.1 **a)** Redraw the following figure as per the types of lines shown in the figure. **(6)**



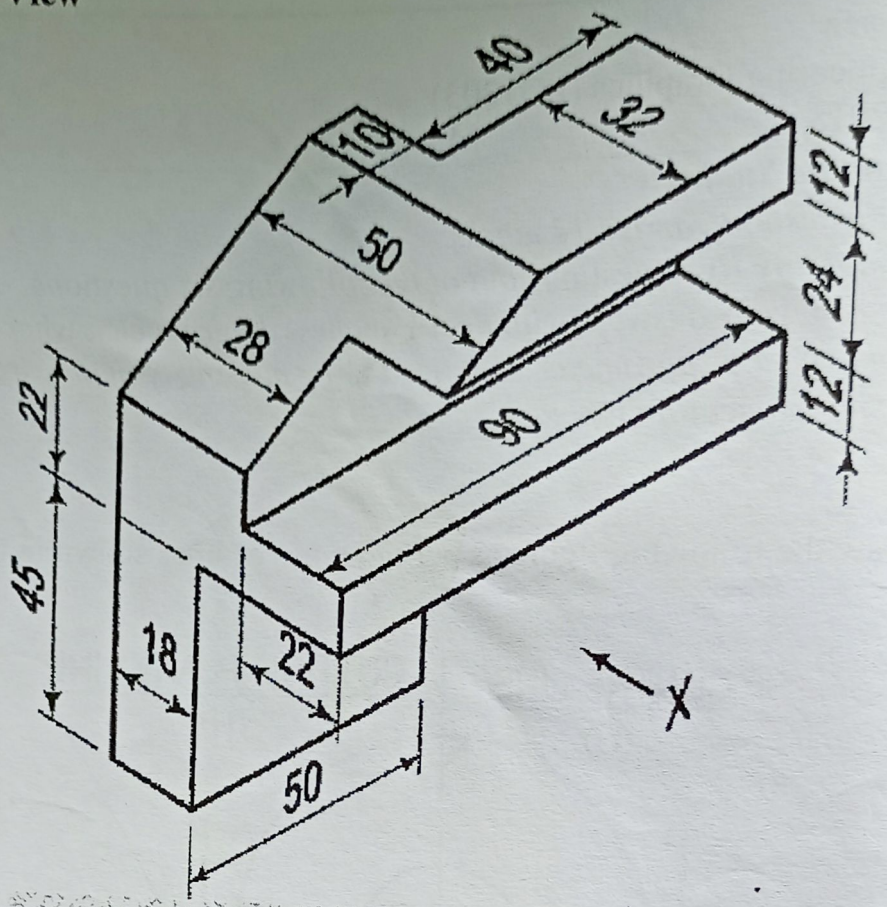
b) Draw a regular heptagon of 30 mm side by any method. **(6)**

236A67341802F5C64C10AF445C8D9383

Q.2 Draw the following views of the object (in X – direction) shown below, by using fir angle projection method.

a) Front View (6

b) Top View (6



Q.3. A thin rectangular plate of sides 60 mm x 30 mm has its shorter side in the V.P. and inclined at 30° to the H.P. Project its top view if its front view is a square of 30 mm long sides. (12)

OR

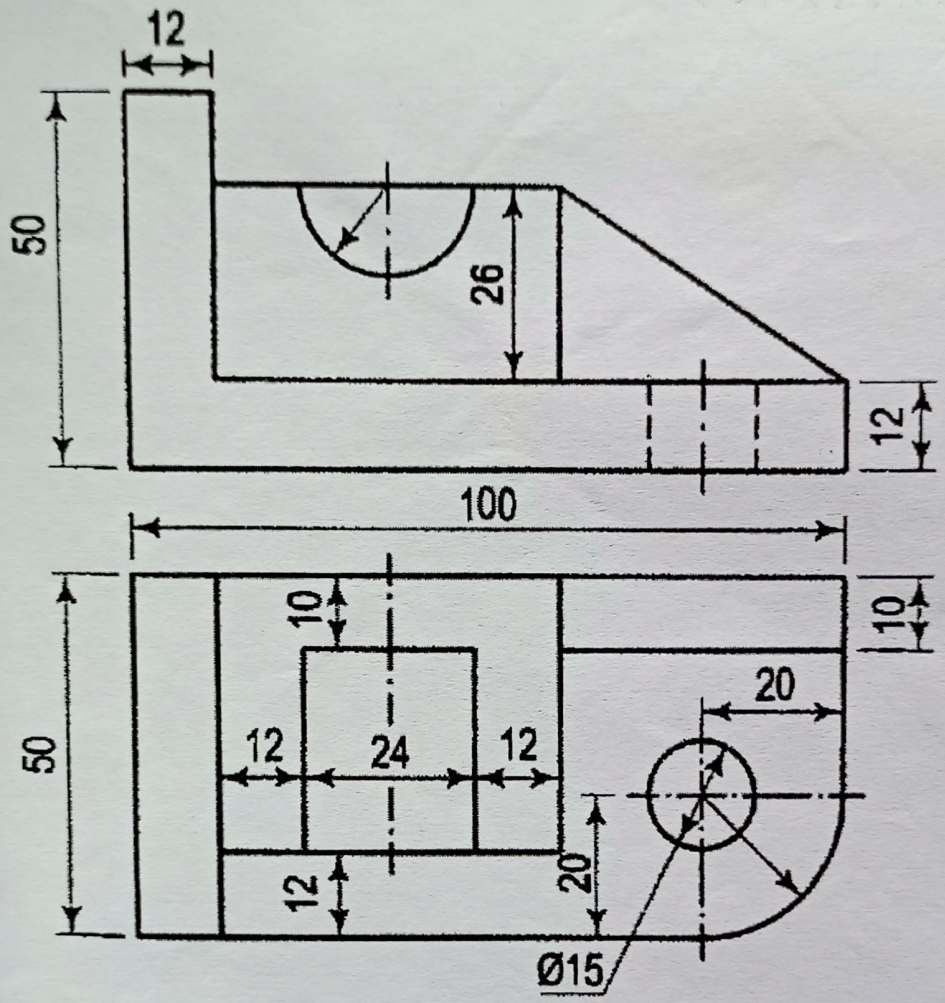
A line AB, inclined at 40° to the V.P., has its ends 50 mm and 20 mm above the H.P. The length of its front view is 65 mm and its V.T. is 10 mm above the H.P. Determine the true length of AB, its inclination with the H.P. and its H. T. (12)

Q.4 Three spheres A, B and C of 75 mm, 50 mm and 30 mm diameters respectively, rest on the ground each touching the other two. Draw their projections and show the three points of contact when the line joining the centers of the spheres A and B is parallel to the VP. (12)

Q.5. A hexagonal prism has a face on the HP and the axis parallel to the VP. It is cut by a vertical section plane, the HT of which makes an angle of 45^0 with xy and which cuts the axis at a point 20 mm from one of its ends. Draw its sectional front view and the true shape of the section. Side of base 25 mm long; height 65 mm. **(12)**

236A67341802F5C64C10AF445C8D9383

Q.6. Draw the isometric view of the following object having FV and TV drawn by first angle projection method. **(12)**



DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE – RAIGAD -402 103

End Semester Examination – May 2019

Course: B. Tech (All) **Semester:** I/II
Subject: Engineering Graphics (EG1203)
Date: 23/05/2019 **Marks:** 60 **Time:** 4 Hrs.

Instructions to the Students

1. Each question carries 12 marks.
2. Attempt **any five** questions out of the following six questions.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter or dimension is noticed to be missing, you may appropriately assume it and should mention it clearly

(Marks)

Q.1 a) Draw the following types of lines according to drawing standard SP 46. **(6)**

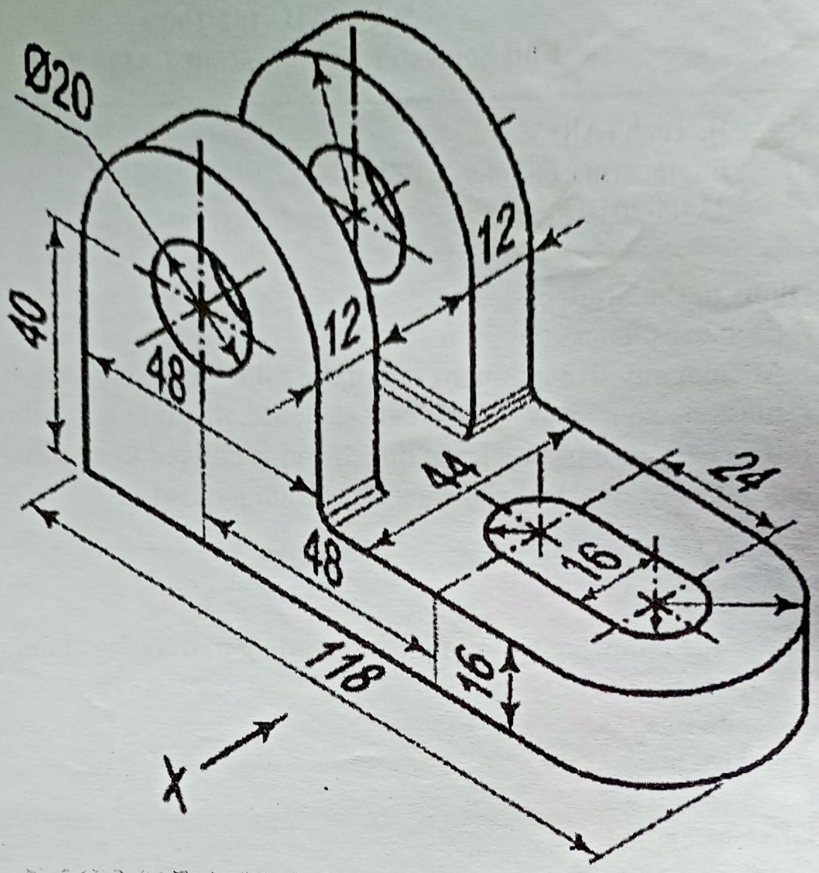
1. Cutting plane line
2. Centre line
3. Hidden line
4. Dimension line
5. Extension line
6. Outline

b) Draw a regular hexagon of 30 mm side by any method and draw also a circle touching each corner of the hexagon. **(6)**

Q.2 Draw the following views of the object (in X – direction) shown below, by using first angle projection method.

a) Front View (4)
b) Top View (4)
c) Right Hand Side View (4)

A10D47D351C36413541E38D942966FAD



Q.3. Draw the projections of a regular hexagon of 25 mm side, having one of its sides in the H.P. and inclined at 60° to the V.P., and its surface making an angle of 45° with the H.P. **(12)**

OR

A line PQ 100 mm long is inclined at 30° to the H.P. and at 45° to the V.P. Its mid-point is in the V.P. and 20 mm above the H.P. Draw its projections, if its end P is in the third quadrant and Q in the first quadrant. **(12)**

Q.4 Draw the projections of a pentagonal prism, base 25 mm side and axis 50 mm long, resting on one of its rectangular faces on the H.P. with the axis inclined at 45^0 to the V.P. **(12)**

Q.5. A cone, base 75 mm diameter and axis 80 mm long is resting on its base on the H.P. It is cut by a section plane perpendicular to the V.P., inclined at 45° to the H.P. and cutting the axis at a point 35 mm from the apex. Draw its front view, sectional top view, and sectional side view. **(12)**

A10D47D351C36413541E38D942966FAD

Q.6. Draw the isometric view of the following object having FV and TV drawn by **third angle projection** method. **(12)**