

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Summer Examination 2026

Course: B.Tech.

Branch: Common To All Branches

Semester: II

Subject Code & Name: 24AF1EGES204 Engineering Graphics

Date: 06/08/2026

Max Marks: 60

Duration: 4 Hr.

Instructions to the Students:

1. Each question carries 12 marks.
2. Question No. 1 will be compulsory and include objective-type questions.
3. Candidates are required to attempt any four questions from Question No. 2 to Question No. 6.
4. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
5. Use of non-programmable scientific calculators is allowed.
6. Assume suitable data wherever necessary and mention it clearly.

	Level /CO	Marks
Q. 1 Objective type questions. (Compulsory Question)		12
1. Engineering drawing is often called the _____ of engineers. a) Speech b) Language c) Communication d) Expression	(CO 1)	01
2. The main purpose of engineering drawing is to _____. a) Record music b) Represent ideas and designs graphically c) Perform mathematical calculations d) Improve handwriting	(CO 1)	01
3. A point lying below the H.P. and behind the V.P. will be in the _____. a) First quadrant b) Second quadrant c) Third quadrant d) Fourth quadrant	(CO 3)	01
4. When a line is parallel to both H.P. and V.P., its projections on both planes are _____. a) Points b) Straight lines and parallel to XY line c) Inclined lines d) Perpendicular lines	(CO 3)	01
5. When a line is perpendicular to H.P., its front view is _____. a) Parallel to XY line b) Perpendicular to XY line c) A point d) Inclined at 45° to XY line	(CO 3)	01
6. If a line is inclined to H.P. but parallel to V.P., its top view shows the _____. a) True length b) Apparent length c) Point view d) Trace of line	(CO3)	01
7. When a plane is inclined to H.P. but perpendicular to V.P., the true shape of the plane is seen in the _____. a) Front view b) Top view c) Side view or auxiliary view d) Both front and top view	(CO 4)	01
8. The inclination of a plane with H.P. is represented by the angle _____. a) θ (theta) b) ϕ (phi) c) α (alpha) d) β (beta)	(CO 4)	01
9. A solid is said to rest on H.P. when its _____ is in contact with H.P. a) Axis b) Base c) Edge d) Apex	(CO 5)	01
10. The projection of solids inclined to both reference planes is generally drawn using _____. a) Auxiliary projection method b) Oblique projection method c) Perspective projection method d) Freehand sketching method	(CO 5)	01
11. The angles between the projection of the x-axis, y-axis, and z-axis in an isometric view are: a) 90° b) 120° c) 45° d) 60°	(CO 5)	01
12. When a solid is cut by a plane, the shape of the section depends on: . a) The position of the plane b) The material of the solid c) The colour of the solid d) The surface texture of the solid	(CO 5)	01

Q. 2 Solve the following. A) Draw a diagonal scale of R.F. 1: 2.5, showing decimetre, centimetres and millimetres and long enough to measure up to 20 centimetres, plot the distance 2.75 decimetre on the scale. B) Draw the following lines by stating their description and general applications: i. Continuous thick or Continuous wide ii. Dashed thin (narrow) iii. Chain thin Long-dashed dotted (narrow)	(CO1)	06
Q. 3 Solve the following. 12		
A) Draw the FV and TV of following points i) Point A is in HP and 30 mm behind VP ii) Point B is 25 mm above HP and 15 mm behind VP iii) Point C is in VP and 40 mm below HP B) A line PQ 75 mm long having its end P in HP and 32 mm Infront of VP, it is 45° inclined to HP and parallel to VP. Draw the projections of line PQ	(CO2)	06
Q. 4 Solve Any Two of the following. 12		
A) Draw the projections of a regular hexagon of 30 mm side, having one of its sides in the V.P. and inclined at 55° to the H.P., and its surface making an angle of 35° with the V.P. B) A cylinder of base 50 mm diameter and height 75 mm is resting on a point on the circumference of base on the HP with its apex 55 mm above the HP. Draw its projections if its axis is inclined at 45° to the VP. C) A square prism, having a base with a 30 mm side and an axis 80 mm long, rests on one of its base edges in the H.P such that the axis is inclined at 30° to the HP & resting edge makes an angle of 45° with VP, draw its projections	(CO3)	06
Q.5 Solve Any Two of the following. 12		
A) A square prism, with a base side of 40 mm and an axis length of 60 mm, is resting on a rectangular face on the HP, having axis parallel to the VP. An AIP inclined at 45° to the HP cuts the prism passing through a point on axis at 25 mm from one end of the prism. Draw FV, sectional TV and true shape of the section. B) A cone of 40 mm diameter, 60 mm height and having its axis vertical, is cut by a section plane, perpendicular to the V.P., inclined at 45° to the H.P. and intersecting the axis 34 mm above the base. Draw its front view, sectional top view and true shape of the section. C) Draw the development of the lateral surface of the cylinder shown in fig1	(CO4)	06

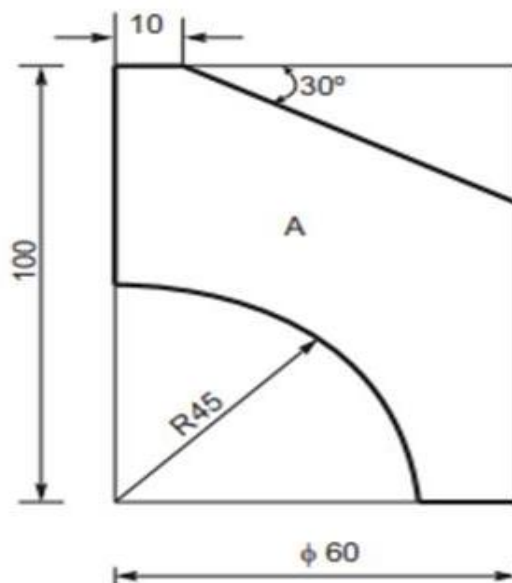


Fig.1

Q. 6 Solve Any One of the following.

12

A) Draw FV, TV and LHSV of the object shown in fig.2

(C05)

12

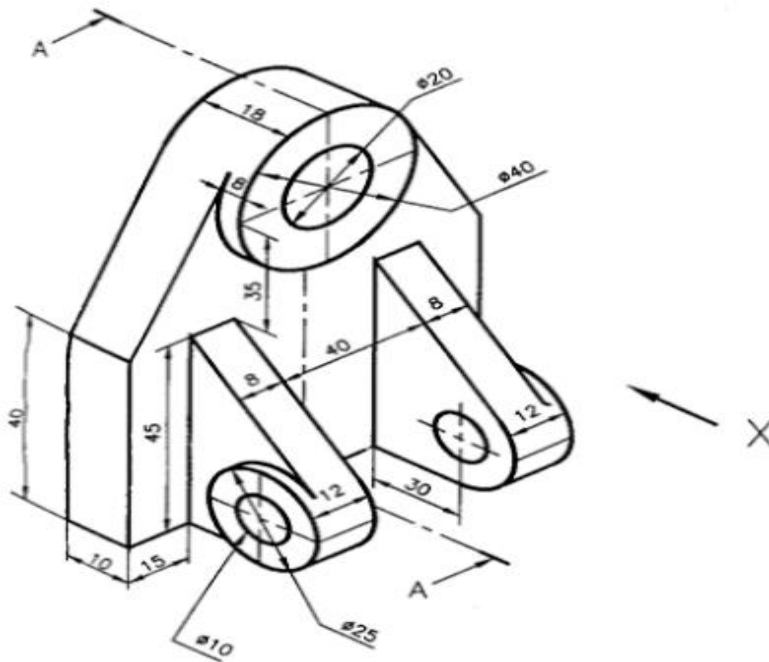


Fig.2

B) Figure 3 below shows the FV and TV of an object. Draw its isometric view

(CO5)

12

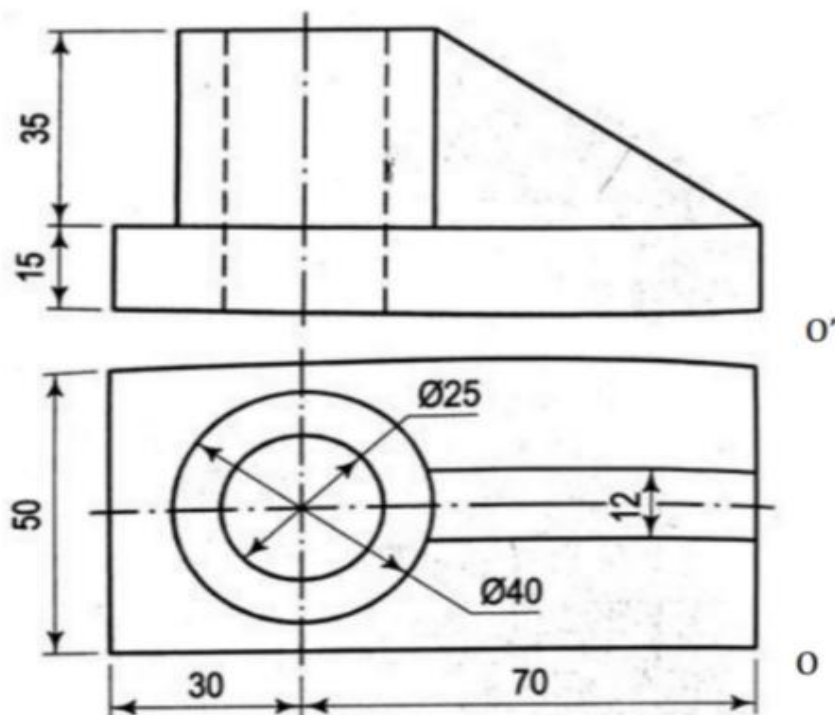


Fig.3