

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/ Supplementary / Winter Examination 2025-26

Course: B.Tech.

Branch: Common To All Branches

Semester: I/ II

Subject Code & Name: 24AF2EGRES104; Engineering Graphics

Max Marks: 60

Date:22/01/2026

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 Marks
/CO)

Q. 1	Objective type questions. (Compulsory Question)		12
1.	The length to height ratio of closed filled arrow head is A) 2:1 B) 1.1 C) 1.3 D) 3.1	(CO1)	1
2.	The hidden parts inside or back side of object while represented in orthographic projection are represented by which line? A) Continuous thick line B) Continuous thin line C) Dashed thin line D) Long-break line	(CO2)	1
3.	In 1st angle projection the positions of front and top views are A) top view lies above the front B) front view lies above the top view C) front view lie left side to top view D) top view lie left side to front view	(CO5)	1
4.	Which method of development is employed in case of prisms? A) Parallel-line development B) Approximation method C) Triangulation development D) Radial-line development	(CO6)	1
5.	The lines from the object to the plane of projection is called A) Projection B) Projector C) Reference line D) Connector	(CO4)	1
6.	What is the main use of a set square in technical drawing? A) Drawing curves B) Drawing horizontal lines C) Drawing vertical and inclined lines D) Measuring distances	(CO1)	1
7.	What is the purpose of diagonal scale? A) To measure time accurately B) To measure sub units precisely C) To draw orthogonal views D) To measure angles	(CO2)	1
8.	A line inclined to both planes appears as A) True length B) Foreshortened length C) Full length D) None of the above	(CO3)	1
	What is the primary principle of orthographic projection?		

9.	A) Parallel projection lines C) Random projection lines	B) Converging projection lines D) Curved projection lines	(CO6)	1
10.	A circle is placed at 20 degrees with vertical the view from top view will be A) line C) Ellipse		(CO5)	1
11.	When a pyramid or a cone is cut by a plane parallel to its base, thus removing the top portion, the remaining portion is called A) cylinder C) prism		(CO4)	1
12.	What do hidden lines in orthographic projections denote? A) Holes or slots C) Position of cut		(CO5)	1
Q. 2	Solve the following.			12
A)	Construct a regular pentagon about a circle of 50mm diameter		(CO1)	6
B)	Draw a scale of full size, showing 1/100 inch and to measure up to 5 inches.		(CO2)	6
Q. 3	Solve the following.			12
A)	A point P is 15 mm above the HP and 20mm in front of VP. another point Q is 25mm behind the VP .and 40mm below the HP. Draw projection of P and Q keeping the distance between their projector equal to 90mm Draw straight line joining (i) their top views and (ii) their front views		(CO3)	6
B)	A line AB, 65mm long, has its end A 20mm above the HP. And 25mm in front of VP. The end B is 40mm above the HP and 65mm in front of VP. Draw the projection of AB and shows its inclination with HP and VP.		(CO3)	6
Q. 4	Solve Any One of the following.			12
A)	A Square ABCD of side 50 mm has one its corner A in the HP its diagonal AC inclined at inclined at 30° to the HP. And the diagonal BD inclined at 45° to the VP. And parallel to HP Draw its projections.		(CO4)	12
B)	Draw the projection of cube of 25mm long edges resting on the HP on one of its corners with the solid diagonal perpendicular to the VP.		(CO4)	12
Q.5	Solve Any One of the following.			12
A)	Square pyramid of base side 25 mm and altitude 40 mm rests on the HP on its base with the base edges equally inclined to the VP. It is cut by a plane perpendicular to the VP and inclined at 30° to the HP meeting the axis at 21 mm above the HP. Draw the sectional top view and the true shape of the section.		(CO4)	12
B)	A square prism side of base 40mm, axis length 80mm is kept on the HP with its side of base equally inclined to VP. A circular hole of diameter 40mm is drilled through the prism such that axis of hole is perpendicular to VP and parallel to HP. and bisect the axis of square prism. Draw the development of lateral surface of		(CO6)	12

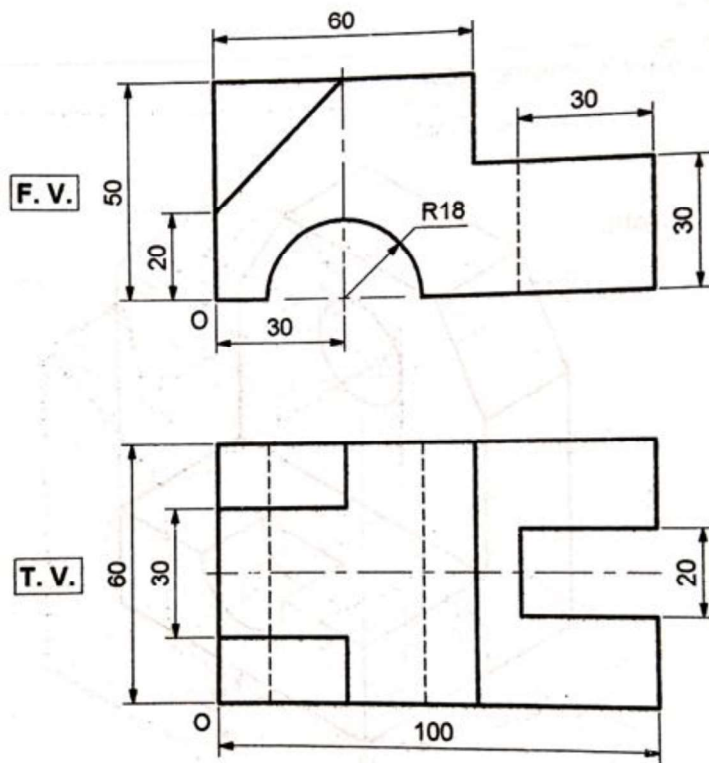


Figure 2

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