

Supplementary Summer Examination – 2026

Course: B. Tech.

Branch: All Branches

Semester: I/II

Subject Code & Name: BTES203G Engineering Graphics

Max Marks: 60

Date: 14/07/2026

Duration: 4 Hr.

Instructions to the Students:

1. All the questions are compulsory.
2. 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.
3. Use of non-programmable scientific calculators is allowed.
4. Assume suitable data wherever necessary and mention it clearly.

(Level/CO) Marks

Q.1 Solve Any Two of the following questions. (12)

- A) Draw the following sentence according to drawing standard SP 46. (or any other standard convention) Remember 6

Dr. Babasaheb Ambedkar Technological University

- B) Write **true or false** for the following questions Remember 6

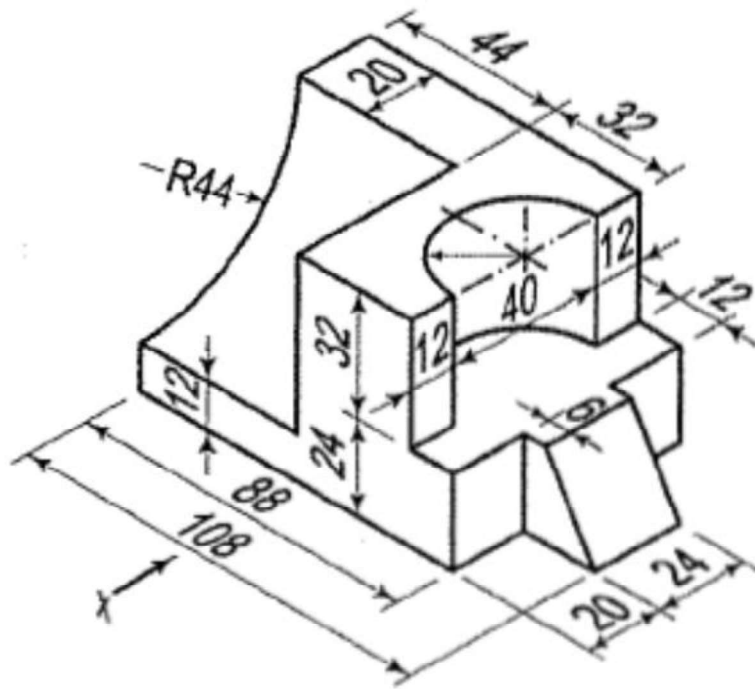
1. Extension line is a thick type of line.
2. Centre line is drawn as dash-dot-dash type thin line.
3. All the dimensions are readable from bottom of the drawing in Aligned System of Dimensioning.
4. Front view is drawn below XY line in first angle projection method.
5. The front view, top view and side view of a point is always a point.
6. The front view of a line perpendicular to VP is a point.

- C) Fill in the blanks by selecting the correct alternative. Understand 6

1. VP stands for _____ (Vertical Plane/ Variable Plane)
2. _____ line is drawn as thin line. (Dimension/Outline)
3. Outline of the object is drawn as _____ line. (thick/ thin)
4. _____ are drawn at inclination of 45° (Section Lines/ XY Line)
5. Pyramid has _____ at the top. (apex/ square shape)
6. Front view of a rectangle is _____, if it is parallel to VP. (square/ rectangle)

Q.2 Solve Any One of the following. (12)

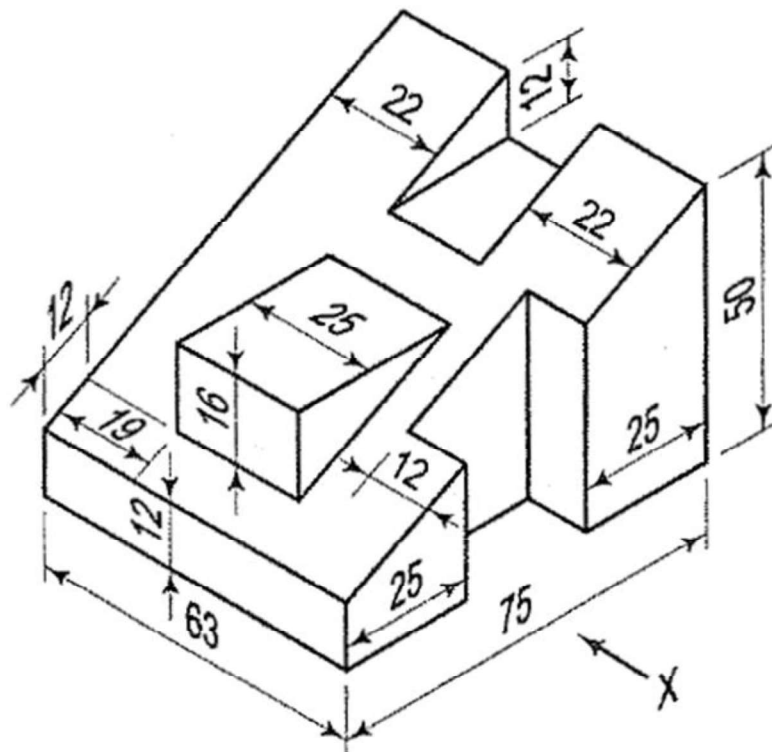
- A) Following figure, shows the pictorial view of an object, draw its following views by using First angle Projection method. Apply 12
- i) front view looking from direction of X,
 - ii) top view



- B) Following figure shows the pictorial view of an object; draw its following views by using Third angle Projection method.
- front view looking from direction of X,
 - top view

Apply

12



Q. 3 Solve Any One of the following.

(12)

- A) A straight line AB, 50 mm long, makes an angle of 30° to the HP and 60° to the VP. The end 'A' is in the VP and 15 mm above the HP. Draw the projections of the line AB and also measure the length of FV and TV.

Evaluate

12

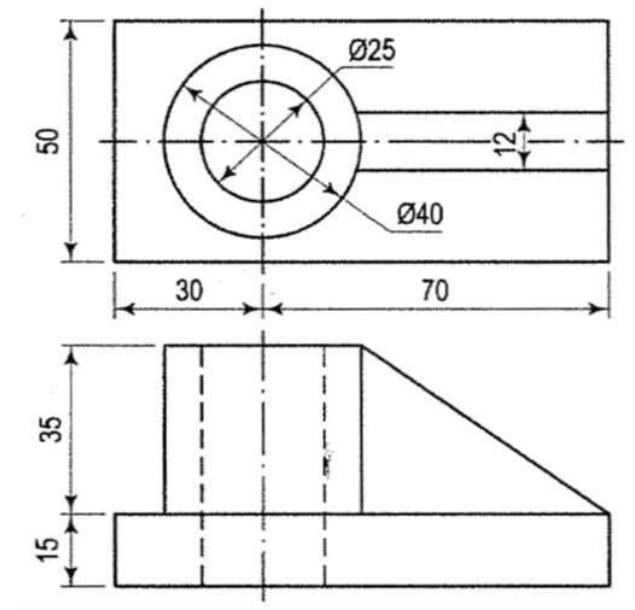
- | | | | |
|----|--|----------|----|
| B) | Draw the projections of a regular hexagon of 30 mm side, which is resting on a corner in the H.P., with its surface making an angle of 30° with the H.P. The TV of the diagonal passing through that corner is inclined at 60° to the V.P. | Evaluate | 12 |
|----|--|----------|----|

Q.4 Solve Any One of the following. (12)

- | | | | |
|----|--|----------|----|
| A) | A hexagonal pyramid, base 25 mm side and axis 50 mm long, has an edge of its base on the ground (H.P.). Its axis is inclined at 30° to the ground and parallel to the V.P., draw its projections. | Evaluate | 12 |
| B) | 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° to the V.P. | Evaluate | 12 |

Q.5 Solve Any One of the following. (12)

- | | | | |
|----|--|------------|----|
| A) | A horizontal cylinder (axis parallel to the VP) with a 50 mm diameter and 90 mm length is cut by an auxiliary incline plane (AIP) such that the true shape of the section is an ellipse of major axis 80 mm. Draw its front view, side view and locate the cutting plane. Also, draw the true shapes of the section. | Evaluate | 12 |
| B) | Draw the isometric view of the following object having FV and TV drawn by third angle projection method. | Synthesize | 12 |



*** End ***