



Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
B.Tech Degree S2 (R,S) Examinations April 2026 (2024 Scheme)

**Course Code: GCEST203**  
**Course Name: ENGINEERING GRAPHICS AND COMPUTER AIDED  
DRAWING**

Max. Marks: 60

Duration: 2 hours 30 minutes

**Instructions: Retain Construction lines. Show necessary dimensions. Answer any ONE question from each module. Each question carries 15 marks**

**MODULE 1**

Sl		CO	Marks
1	A line AB has its end A 20 mm above HP and 25 mm in front of VP. The other end B is 45 mm above HP and 55 mm in front of VP. The distance between end projectors is 60 mm. Draw its projections. Also, find the true length and true inclinations of the line with HP and VP.	CO 1	(15)
2	The end A of a line AB is 10 mm in front of VP and 20 mm above HP. The line is inclined at 30° to HP and front view at 45° with xy line. The top view is 60 mm long. Draw the projections. Find the true length and true inclination with VP. Also, locate the traces.	CO 1	(15)

**MODULE 2**

Sl		CO	Marks
3	A tetrahedron of base 55 mm rests on a corner of its base in such a way that the edge containing that corner makes an angle of 50° with HP and 30° with VP.	CO 2	(15)
4	A cube of 40 mm side rests on HP on an edge in such a way that the lateral square face containing that edge makes an angle of 50° with HP. The edge on which it rests makes an angle of 30° with VP. Draw its projections.	CO 2	(15)

**MODULE 3**

Sl		CO	Marks
5	A cone of 75 mm base diameter, axis 80 mm long, is resting on its base on HP. It is cut by a plane, perpendicular to the VP and inclined at 45° to the HP,	CO 3	(15)

cutting the axis at a point 35 mm from apex. Draw the sectional view and true shape of the section.

- 6 A rectangular prism of cross section 40x25 mm and height 65 mm rests on the ground on the base with one longer edge of the base inclined at  $30^\circ$  to the VP. It is cut by a plane perpendicular to VP, inclined at  $40^\circ$  to HP and meeting the axis at mid height. Draw the development of the surfaces of the lower part of the prism. CO 3 (15)

#### MODULE 4

- | Sl |  | CO   | Marks |
|----|--|------|-------|
| 7  | The frustum of a square pyramid with base side 40 mm, top face side 20 mm and height 60 mm rests centrally on the top of a square block of side 60 mm and height 20 mm. The base edges of the pyramid are parallel to the top edges of the square block. Draw the isometric view of the combination of solids. | CO 4 | (15)  |
| 8  | A hemisphere of diameter 50 mm is resting centrally on top of a square prism of base side 60 mm and height 30 mm such that the curved surface of the hemisphere is touching the top face of the prism. Draw its isometric projections.   | CO 4 | (15)  |

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