

Code: 23ES1203

I B.Tech - II Semester – Regular Examinations - JULY 2024

ENGINEERING GRAPHICS
(Common for EEE, ECE)

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

<p>10 Draw three views of the blocks shown pictorially in figure according to first angle projection.</p>	L6	CO5	14 M
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		BL	CO	Max. Marks
UNIT-I				
1	Construct an ellipse, with the distance of the focus from the directrix as 50mm and eccentricity is 2/3. Also draw a normal and tangent to the curve at a point 40 from the directrix.	L2	CO1	14 M
OR				
2	A circle of 40mm diameter rolls along a line for one revolution clockwise. Draw a locus of a point on the circle, with the line. Also draw the tangent and a normal to the curve at a point 35 from the directing line.	L2	CO1	14 M

UNIT-II

3	A line AB, 90mm long is inclined at 30° to the H.P. Its end A is 12mm above the H.P and 20mm in front of the V.P. Its front view measures 65mm. Draw the top view of AB and determine its inclination with V.P.	L3	CO2	14 M
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OR

4	A line AB of 70 mm long has its end A at 10 mm above H.P and 15 mm in front of V.P. Its front view and top view measures 50 mm and 60 mm respectively. Draw the projections of the line and determine its inclinations with H.P and V.P.	L3	CO2	14 M
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UNIT-III

5	A regular pentagon of 30mm side, has one of its corners on V.P and its surface is inclined at 60° to VP. The edge opposite to the corner on VP makes an angle of 45° with HP. Draw the projections of the plane.	L3	CO3	14 M
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OR

6	A hexagonal pyramid, base 25mm side and axis 50mm long, has an edge of its base on the ground. Its axis is inclined at 30° to the ground and parallel to the V.P. Draw its projection.	L3	CO3	14 M
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UNIT-IV

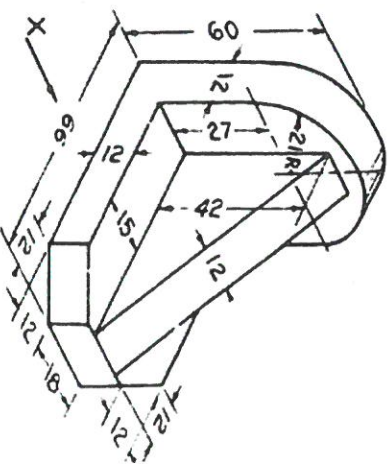
7	A hexagonal pyramid side of the base 30mm and altitude 70mm rests with its base on HP and with a side parallel to VP. It is cut by a cutting plane inclined at 35° to HP and perpendicular to VP and is bisecting the axis. Draw the sectional plan of the pyramid and true shape of the section.	L3	CO4	14 M
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OR

8	A cube of 50 edge, is resting on a face on H.P such that, a vertical face is inclined at 30° to V.P. It is cut by a section plane perpendicular to V.P and inclined to H.P at 30° and passing through a point at 12 from the top end of the axis. Develop the lateral surface of the lower portion of the cube.	L3	CO4	14 M
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UNIT-V

9	Draw three views of the blocks shown pictorially in figure according to first angle projection.	L6	CO5	14 M
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OR

I B.Tech II Semester Regular Examinations July 2024

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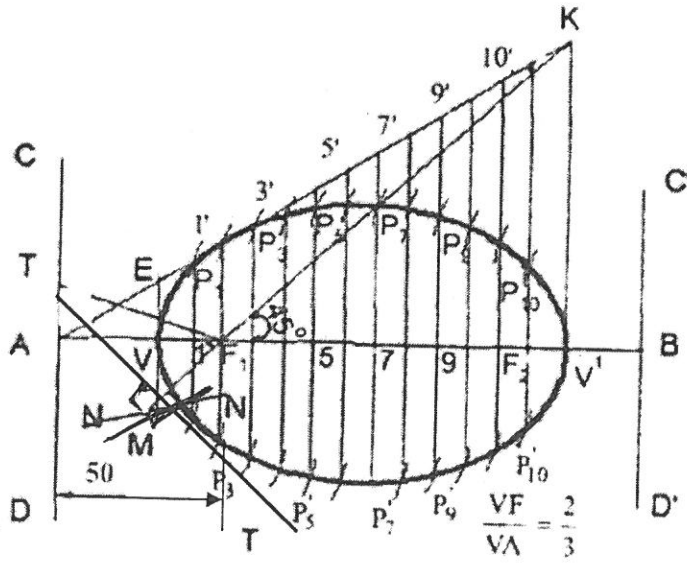
KEY AND SCHEME OF EVALUATION

SCHEME:

- | | | |
|---|------|----------|
| 1. For Directrix & Focus (4M) + Curve (8M) + Tang. & Norm (2M) | | 14 Marks |
| 2. For Circle & Line Division (4M) + Curve (8M) + Tang. & Norm (2M) | | 14 Marks |
| 3. For Axis & One end proj. (4M) + Top View (8M) + Inclination (2M) | | 14 Marks |
| 4. For Axis & One end proj. (4M) + TV & FV (8M) + inclinations (2M) | | 14 Marks |
| 5. For first position (6M) + Surface incl. (4M) + Final Pos. (4M) | | 14 Marks |
| 6. For first position (6M) + Axis inclination (4M) + Final TV (4M) | | 14 Marks |
| 7. For first position (6M) + Sec. FV & TV (4M) + True shape (4M) | | 14 Marks |
| 8. For first position (6M) + Sec. Plane (4M) + Development (4M) | | 14 Marks |
| 9. For FV (5M) + Top View (5M) + SV (4M) | | 14 Marks |
| 10. For FV (5M) + Top View (5M) + SV (4M) | | 14 Marks |

KEY

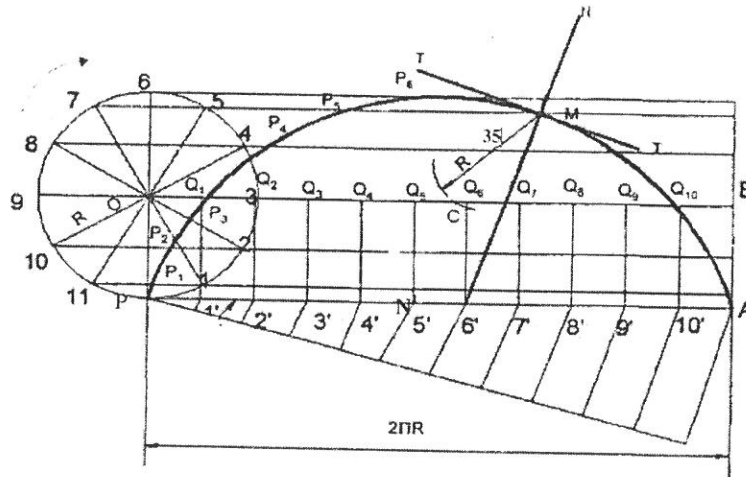
1) Construction of Ellipse:



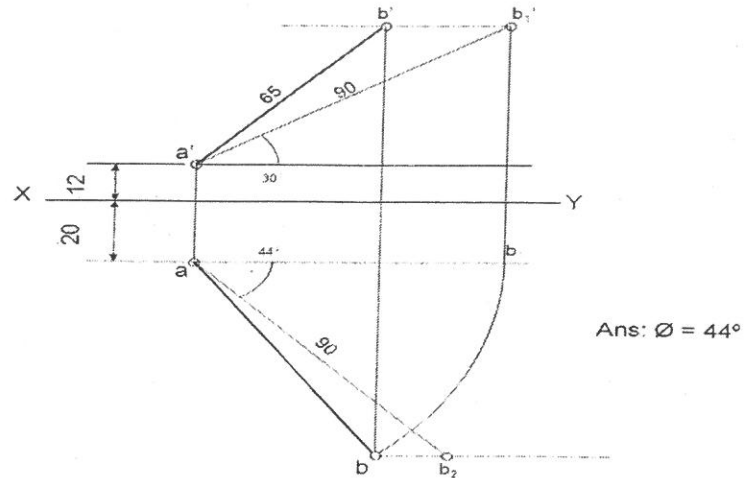
(OR)

2) Cycloid:

2)

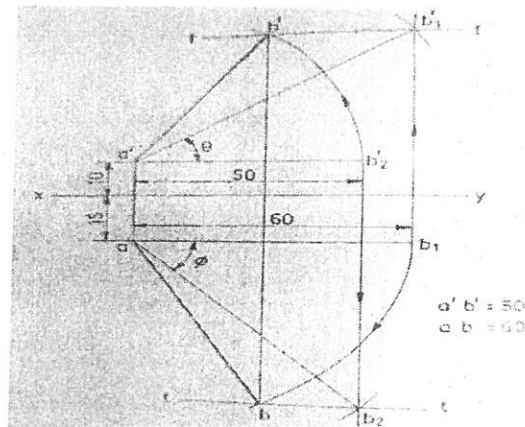


3) Projections of St. Lines:

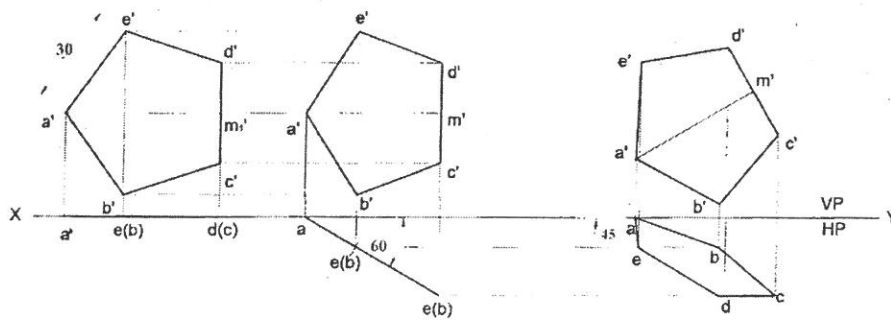


(OR)

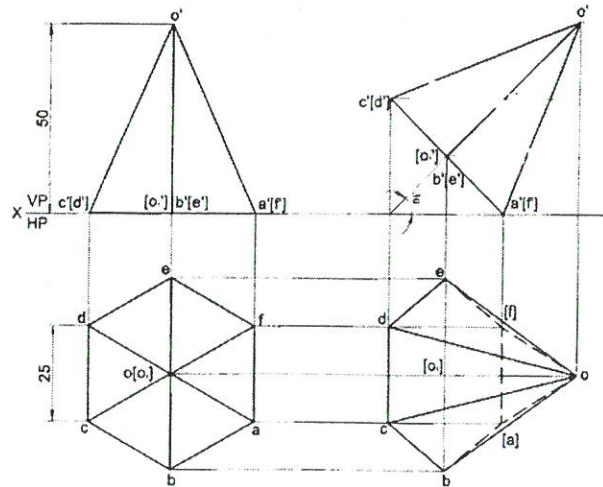
4) Projections of St. Lines:



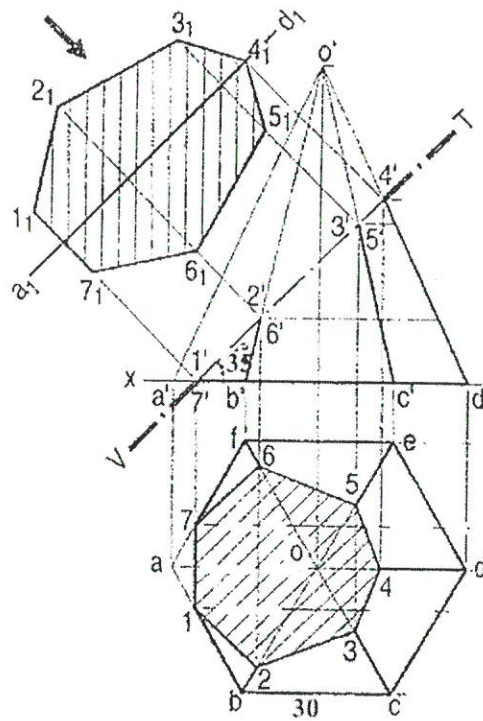
5) Projections of Planes:



(OR)
6) Projections of Solids:

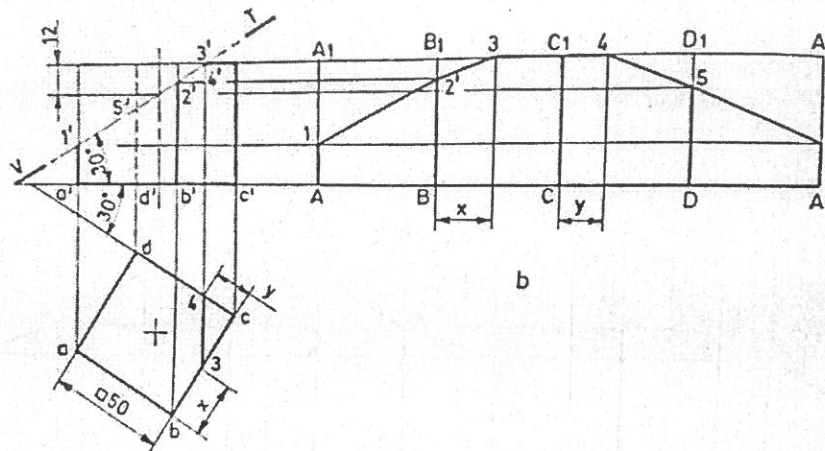


7) Sections of Solids:

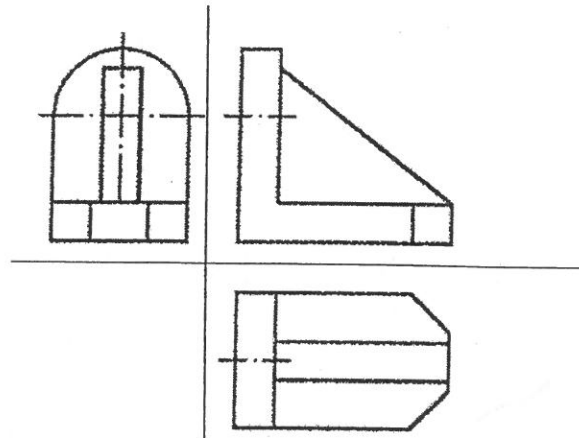
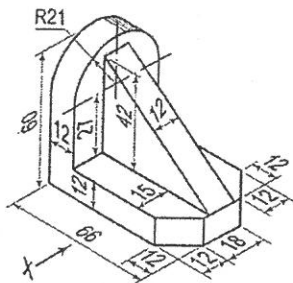


(OR)

8) Development of surfaces:



9) ORTHOGRAPHIC PROJECTIONS:



(OR) 10) ORTHOGRAPHIC PROJECTIONS:

