Indian School Al Wadi Al Kabir

Final Examination (2024-2025)

Class: XI Subject: ENGINEERING GRAPHICS Max. marks:70

Date:04/03/2025 MARKING SCHEME Time: 3 hours

General Instructions:

(i) Attempt all the questions.

(ii) Use both sides of the drawing sheet, if necessary.

(iii) All dimensions are in millimeters.

(iv) Missing and mismatching dimensions, if any, may be suitably assumed.

(v) Follow the SP: 46 – 2003 revised codes. (with first angle method of projection)

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20 x 1 = 20

SECTION – A

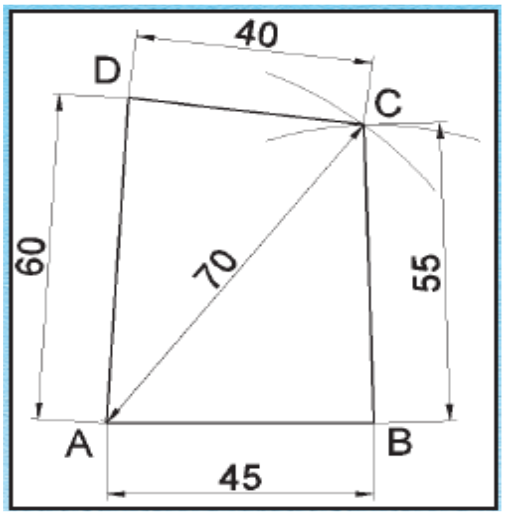
Q.NO	ANSWERS
1	(b) Dashed line
2	(b) Front view
3	(c) regular polygon
4	(c)

5	(c) plan
6	(b) Horizontal section plane
7	(a) Right side view and represent at left side of front view
8	(d) 1-ii, 2-i, 3-iv, 4-iii
9	(a) (i) and (iii) only
10	(c) Square
11	(b) Hexagonal prism and axis perpendicular to HP
12	(c) 120 degree
13	(d) sectioning
14	(c) Cylinder
15	(d)
16	(c) Four centre method
17	(b) Isometric scale
18	(d) Ellipse
19	(c)Foreshortened
20	(b) 30 degree

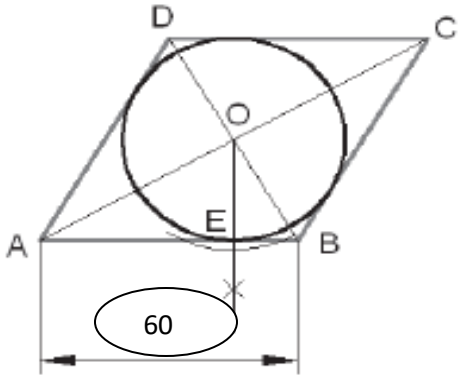
SECTION - B

3 × 2 = 6

21. Construct a quadrilateral with AB = 45 mm, BC = 55 mm, CD = 40 mm, AD = 60 mm, AC = 70 mm. (3)

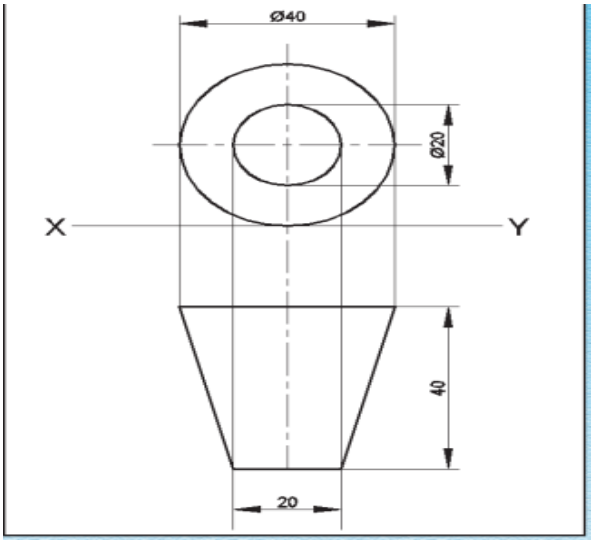


22. Draw a given rhombus with side = 60 mm and inscribe a circle in it.

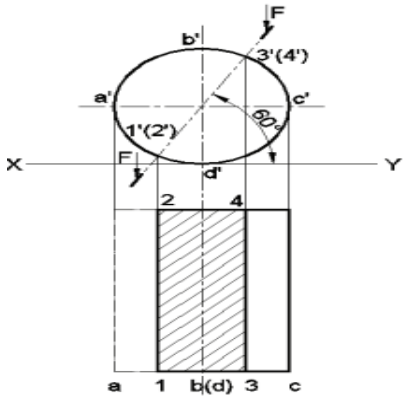


2 × 5 = 10

23. The frustum of a cone of 40 mm base diameter and 20 mm cut face diameter, rests on H.P. with its 40 mm long axis parallel to H.P. and at right angles to V.P. the cut face is in front. Project its Front View and Top View.

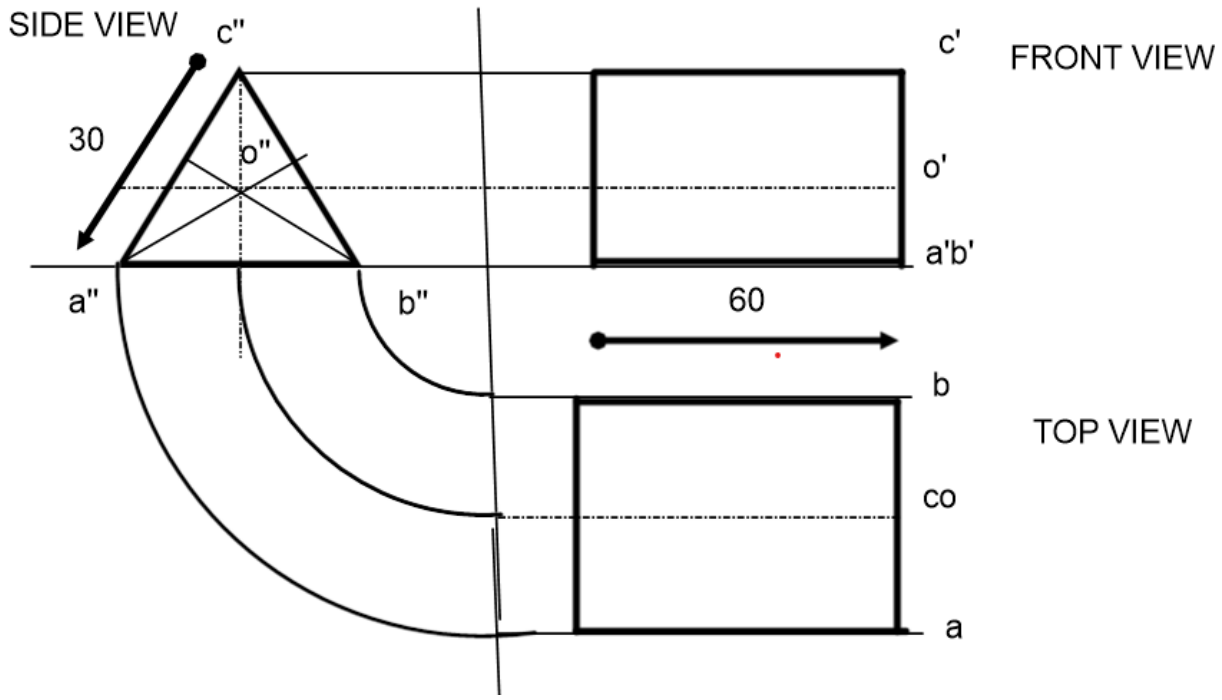


24. A cylinder of base diameter 50 mm and height 70 mm is resting on its curved surface on HP such that the axis is perpendicular to VP. A section plane inclined to HP at an angle of 60°, passes through the axis and cuts the solid into two halves. Draw the Front View and sectional Top View.

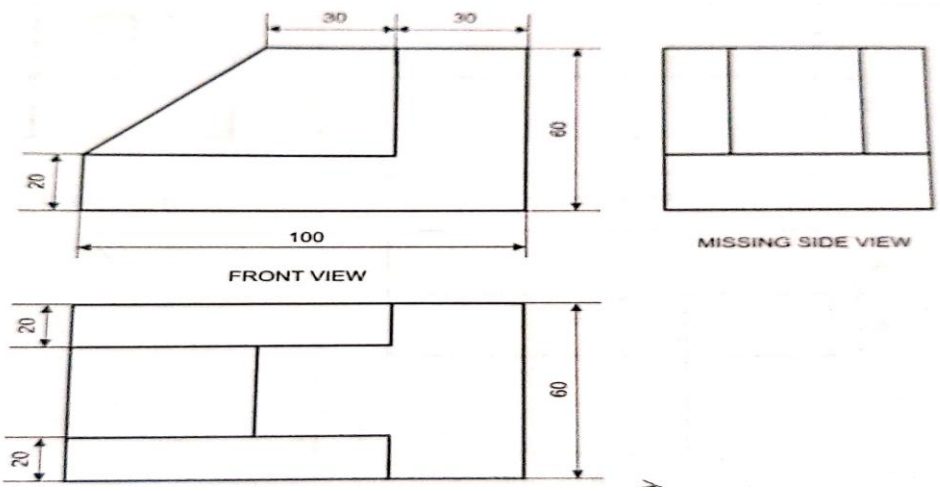


2 × 7 = 14

25. Draw the front view and top view of an equilateral triangular prism of base side 30mm and height 60 mm kept in the horizontal position, with the axis parallel to both H.P. and V.P.

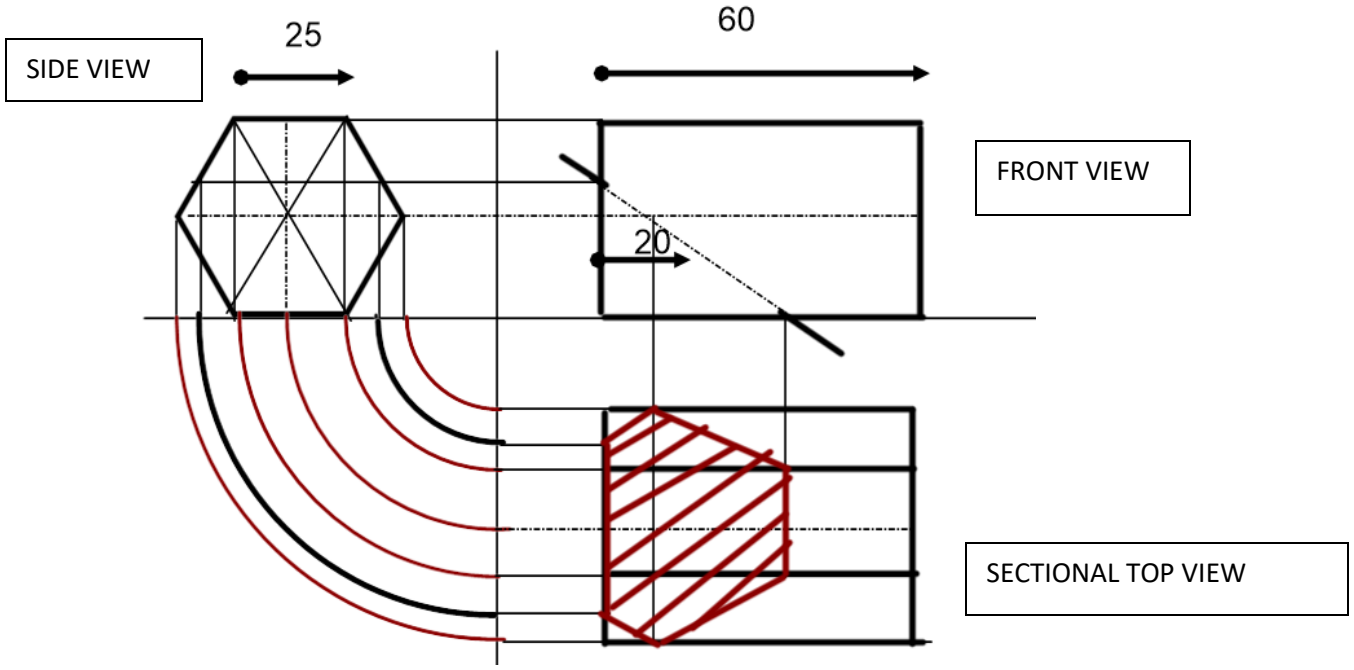


26.Project front view, side view and top view of the machine block, to scale 1:1

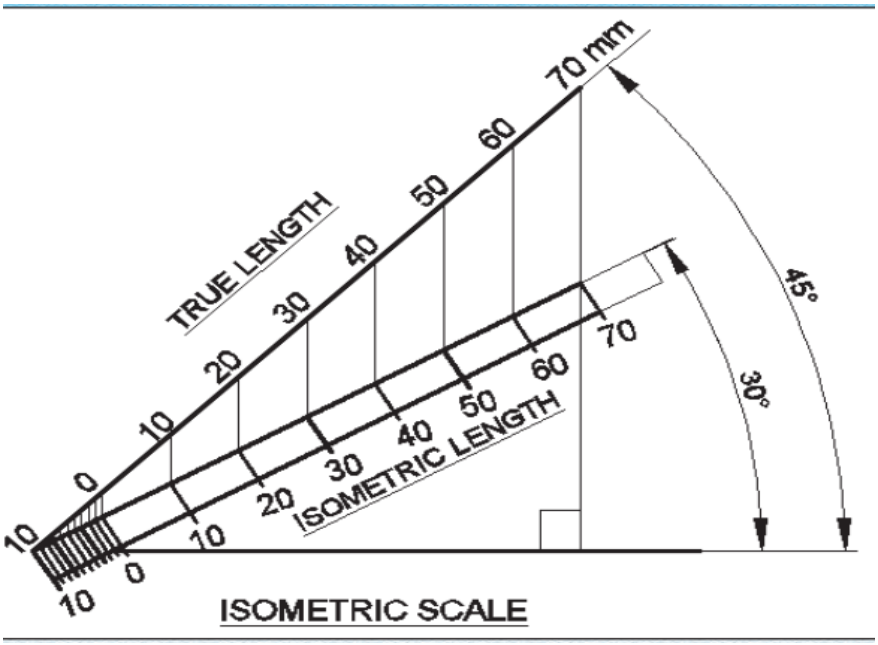


2 × 10 = 20

27. A hexagonal prism of 25 mm base edges and 60 mm length is resting on one of its rectangular faces on the HP with its hexagonal ends at right angles to VP. It is cut by an oblique plane inclined to HP towards the right and intersecting the axis at a point 20 mm away from one of its ends. Project its front view and Sectional top view.



28. (a) Construct an isometric scale of 70mm. (4)



28.(b) Draw the isometric projection of a regular hexagon of base side 30 mm in H.P. (6)