Indian School Al Wadi Al Kabir

Assessment – 2 (2025-2026)

Class: XI ENGINEERING GRAPHICS (046) Max. marks:70
Date:02/12/25 **MARKING SCHEME** Time: 3 hrs.

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 the first angle method of projection)

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20 × 1 = 20

SECTION – A

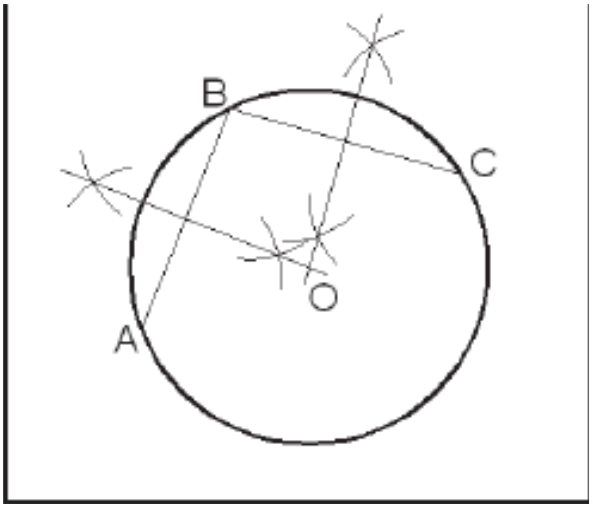
Q.NO	ANSWERS
1	(b) Continuous thick line
2	(c) It shows multiple views of an object accurately
3	(a) Compass
4	(b) First quadrant
5	(b) The plan will show a circle, and the elevation shows a triangle
6	(a)
7	(c) The solid is resting on its apex when its axis is parallel to VP.
8	(a) Length
9	(c) Inverted hexagonal pyramid and axis perpendicular to HP.

10	(a) 1-(iv), 2-(iii), 3-(i), 4-(ii)
11	(d)
12	(c) The figure shows a cylinder with an axis parallel to both HP and VP.
13	(d) Left side view and represented at the right side of the front view.
14	(c) Cylinder
15	(b) Parallel to each other and perpendicular to the plane of projection
16	(b) Front view
17	(a) Top view
18	(c) Provide accurate 2D dimensions for fabrication
19	(a) Top view
20	(b) orthographic projection

2 × 3=6

SECTION B

21. To draw a circle passing through three non-collinear points A, B, and C.



22. Construct a quadrilateral with AB = 45 mm, BC = 55 mm, CD = 40 mm, AD = 60 mm, AC = 70 mm.

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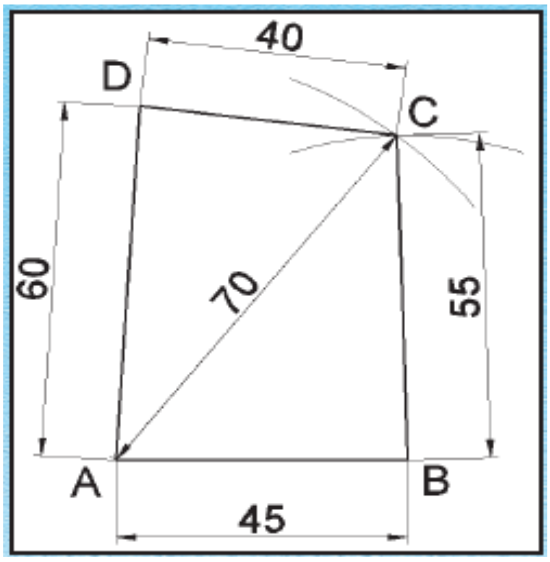
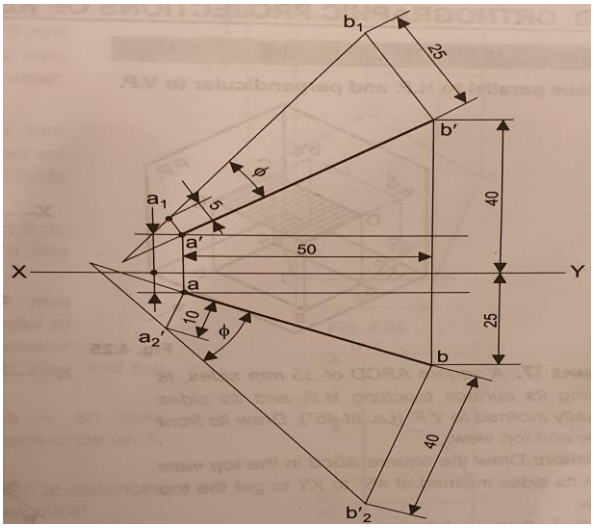
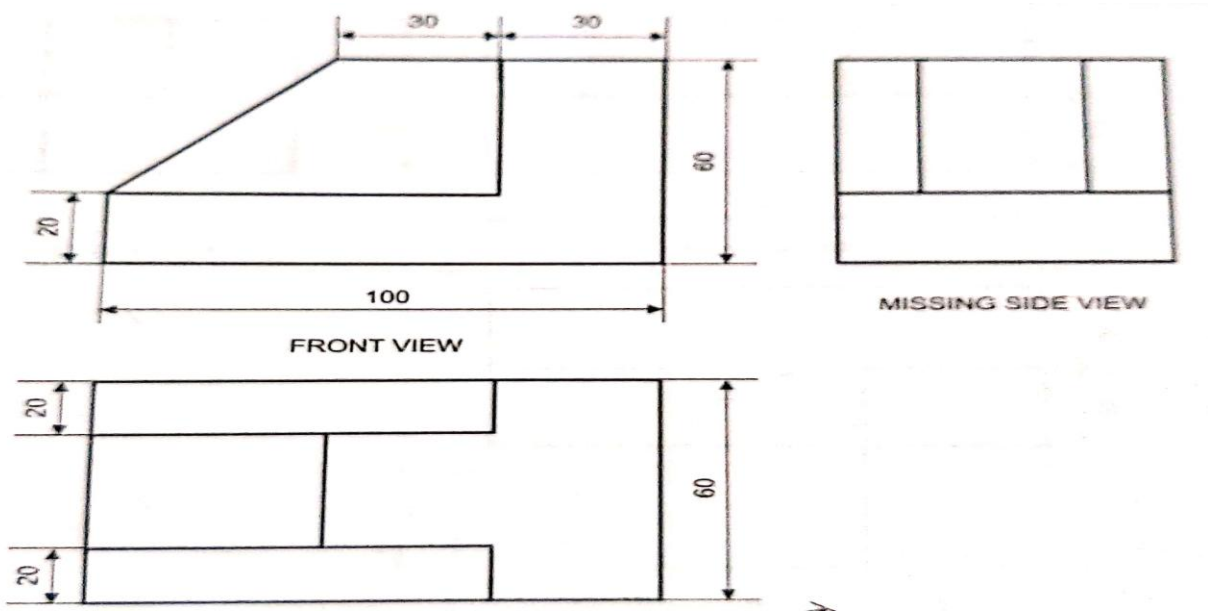


2 × 5 = 10

23. A lıne AB has its end A, 5mm from VP and 10 mm from HP, and B is 40mm from HP and 25mm from VP. The distance between its end projectors is 50mm. Draw its front view and top view. Also, find its true length and the true length of inclination with HP and VP using the trapezoid method. Follow the first angle method of projection.

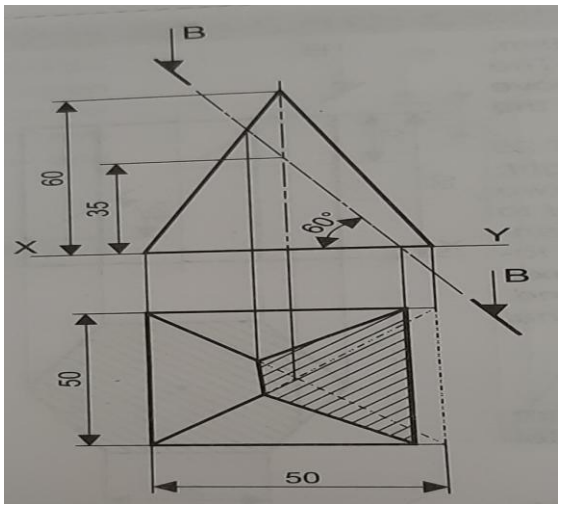


24.

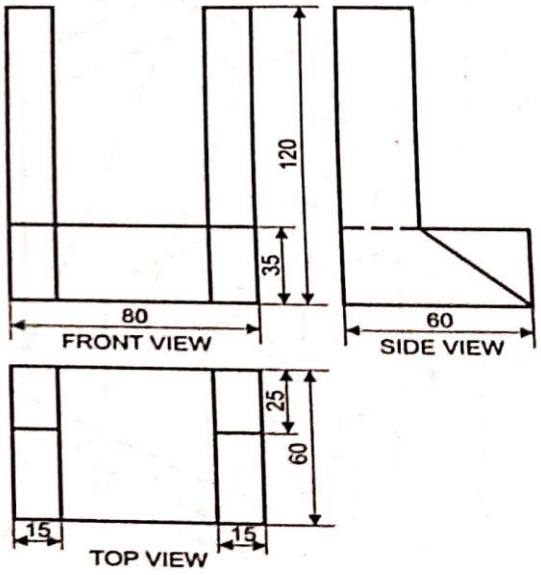


2 × 7 = 14

25. Project the front view and sectional top view of a square pyramid with 50 mm base edges and 60 mm high axis, resting vertically on HP on its base, with two edges of its base parallel to VP, sectioned by a plane perpendicular to VP and inclined to HP at 60 degrees, and intersecting the axis at a point 35 mm above its base.

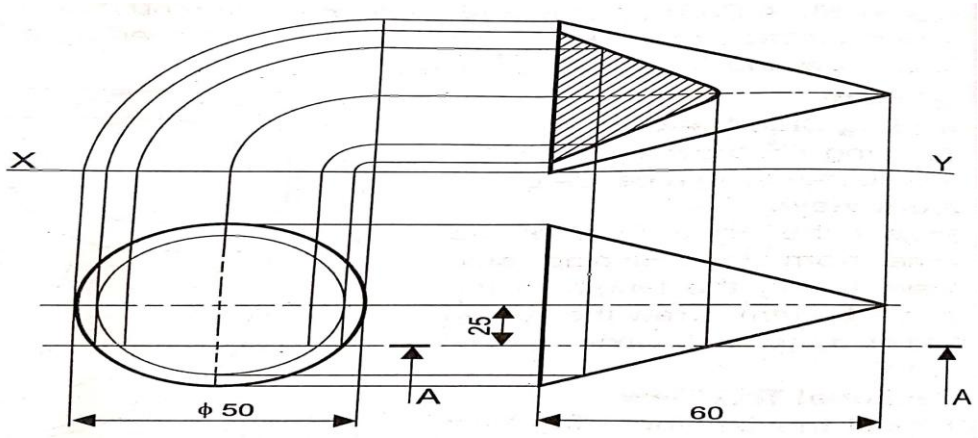


26. Project front view, side view, and top view of the machine block, to scale 1:1.



2 × 10 = 20

27. A cone of 50 mm base diameter and 60 mm horizontal axis is resting on the HP with its base vertical and at right angles to VP. It is sectioned by a vertical plane parallel to VP and 15 mm away from its axis. Project its top view and sectional front view.



28. A pentagonal prism having a 30 mm edge of its base and an axis of 60 mm length is resting on one of its rectangular faces with the axis perpendicular to the side plane(axis parallel to both HP and VP. Draw the projections of the prism.