INDIAN SCHOOL AL WADI AL KABIR

CLASS: XI **ASSESSMENT 1 (2024-2025)** MAX MARKS: 70
DATE: 29/09/24 TIME: 3 HOURS

ENGINEERING GRAPHICS (046)

MARKING SCHEME

Set - 1

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	(c) Meter
2	(d) Hexagonal pyramid
3	(c) Cone

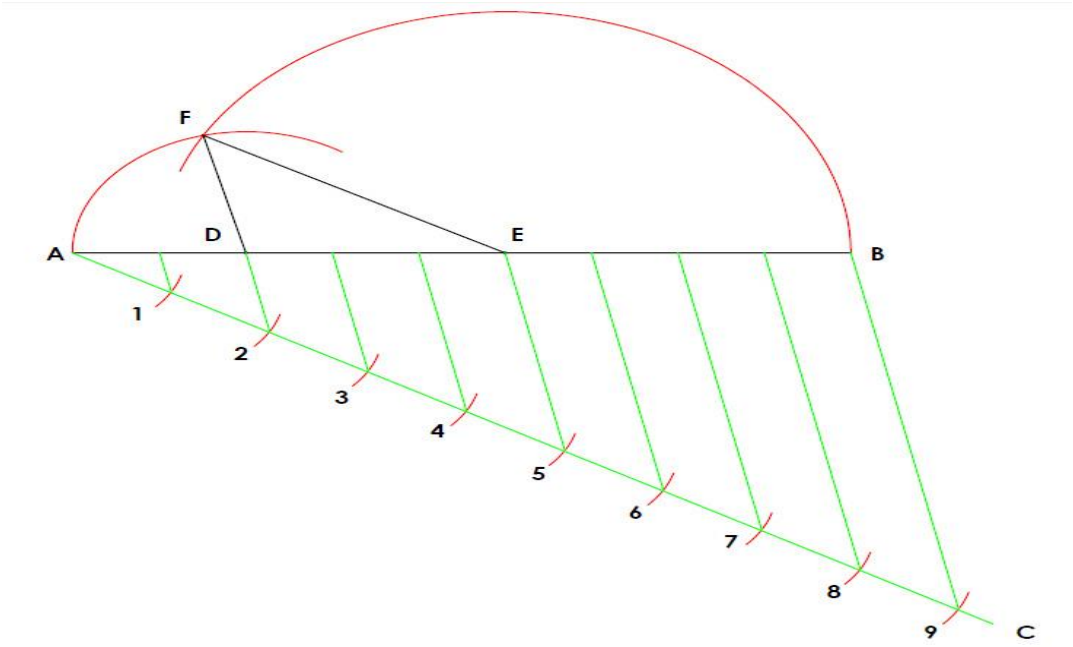
4	(a)
5	(a) Cone and axis perpendicular to HP
6	(b) Horizontal section plane
7	(d)
8	(d) 1-ii, 2-iii, 3-iv, 4-i
9	b) (i) and (iv) only
10	(a) 1-iii, 2-iv, 3-i, 4-ii
11	(a) Hatching
12	(d) Orthographic
13	(a) Sectioning
14	(a) Front view

15	(a) 120 degree
16	(d) Perpendicular to HP
17	(c) Circle
18	(c) Top view
19	(b) Hatching lines
20	(a) Long chain thin line and thick at the ends

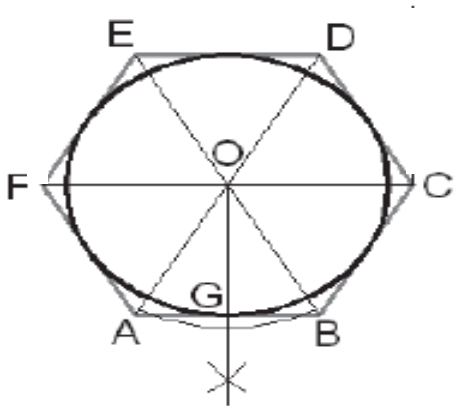
3 X 2 = 6

SECTION B

21. Construct a triangle FDE having its perimeter AB equal to 95 mm and its sides in the ratio 2:3:4.

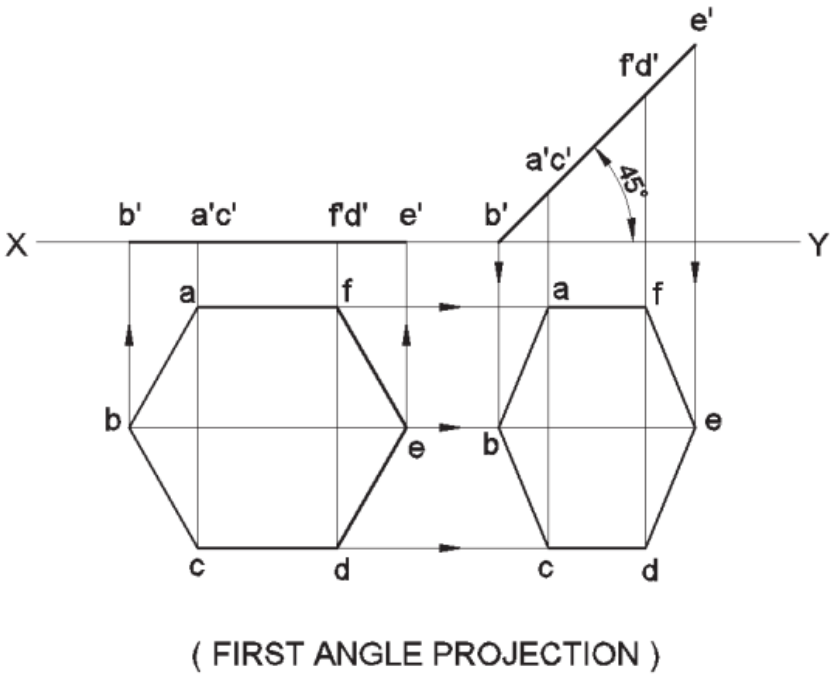


22. Inscribe a circle in a regular hexagon whose side is given as 40 mm



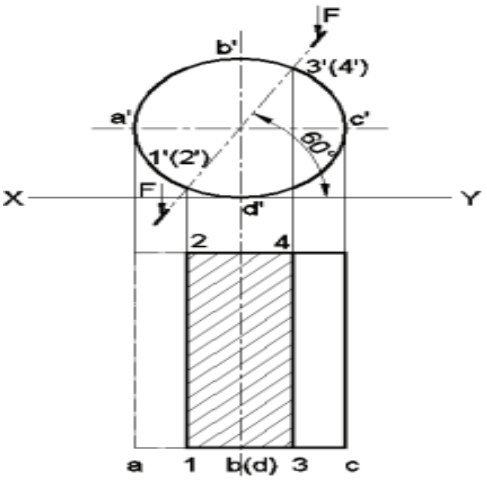
2 x 5 = 10

23. A thin horizontal hexagonal plate of 20 mm sides is inclined at 45° to the H.P. and perpendicular to V.P. two of its parallel edges is parallel to V.P. the plate is 10 mm above H.P. and 15 mm in front of V.P. Draw the projections of the plate.



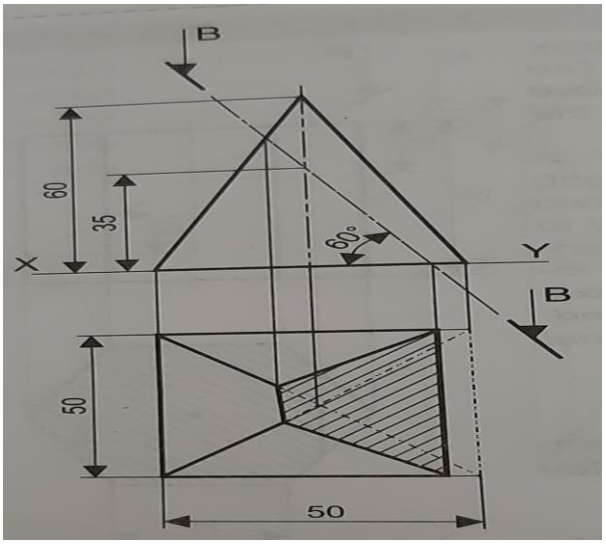
(FIRST ANGLE PROJECTION)

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 normal 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.

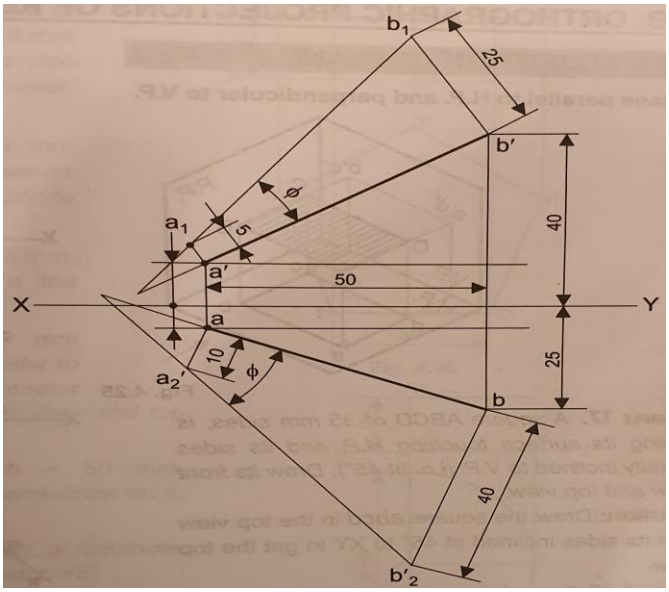


2 x 7 = 14

25. Project the front view and sectional top view of a square pyramid of 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 inclined to HP at 60 degree and intersecting the axis at a point 35 mm above its base.

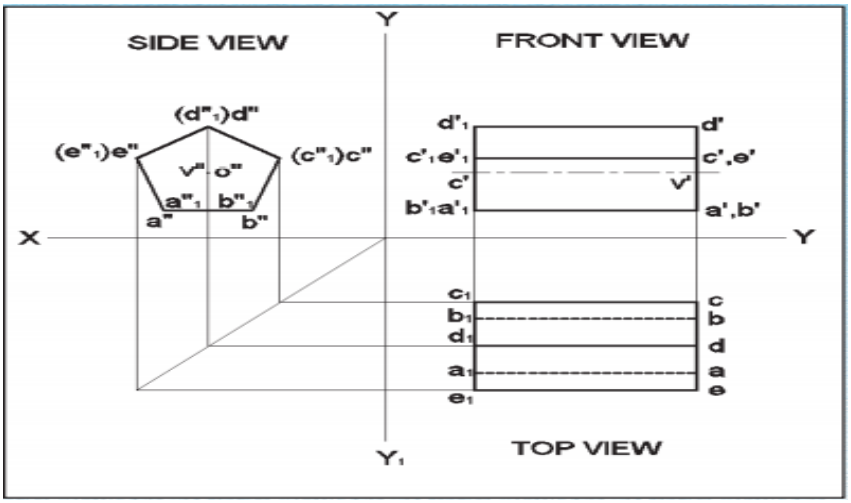


26. A line AB has its end A, 5mm from VP and 10 mm from HP, and B is 40mm from HP and 25mm from VP. The distance between its end projectors is 50mm.Draw its front view and top view. Also find its true length and true length of inclination with HP and VP using trapezoid method. Follow the first angle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



2 x 10 = 20

27. A pentagonal prism having a 20 mm edge of its base and an axis of 50 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.



28. . A triangular pyramid of 40 mm base edges and 60 mm long horizontal axis, is resting on one edge of its base, which is right angles to VP (axis parallel to both HP and VP). It is sectioned by a horizontal plane above its axis. Project its front view and sectional top view.

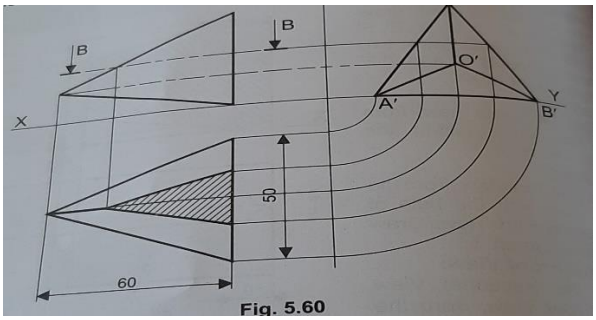


Fig. 5.60
