INDIAN SCHOOL AL WADI AL KABIR

FINAL EXAMINATION (2023-2024)
Sub: ENGINEERING GRAPHICS (046)
MARKING SCHEME

Date: 22.02.2024   Max. Marks: 70

Class: XI   Time Allowed: 3 hours

SECTION – A   20 x 1 = 20

Q.NO	ANSWERS
1	b. Dashed lines
2	a. On XY line
3	a.Prism
4	b.
5	a. Elevation
6	a. Vertical section plane
7	d. Left side view and represent at right side of front view

8	c. 1-iv, 2-iii, 3-i, 4-ii
9	d. (i) and (iv) only
10	c. Circumscribing of circle
11	a. Hexagonal prism and axis perpendicular to HP
12	b. Isometric lines
13	c. 45 degree
14	c. Cylinder
15	d.
16	b. Isometric scale
17	c. Four centre method

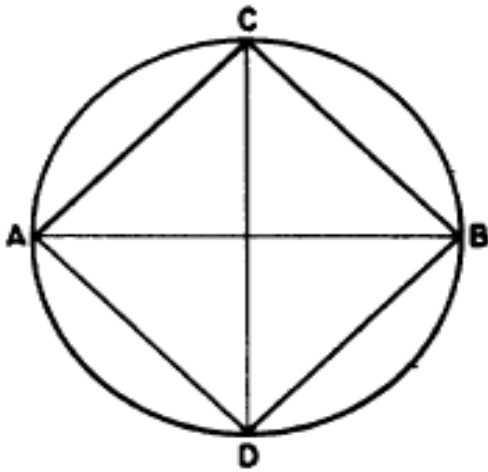| 18	d. 45, 30	
19	d.Ellipse	
20	c.15 degree	

SECTION B

3 x 2 = 6

21. On a base AB = 25 mm long, to construct a regular hexagon with the compasses.   (3)
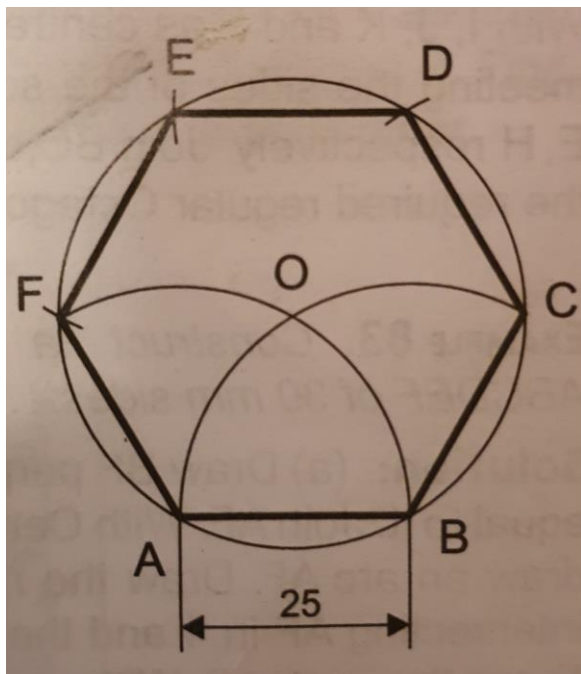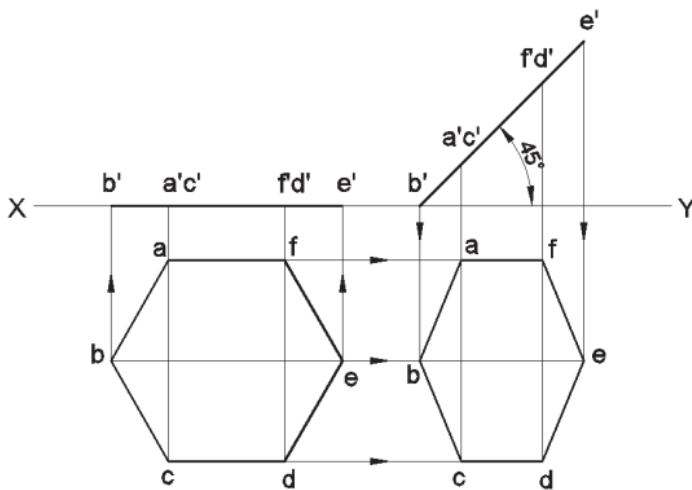
**22.** Draw a given square whose diagonal is 60 mm. Circumscribe a circle above it.

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.
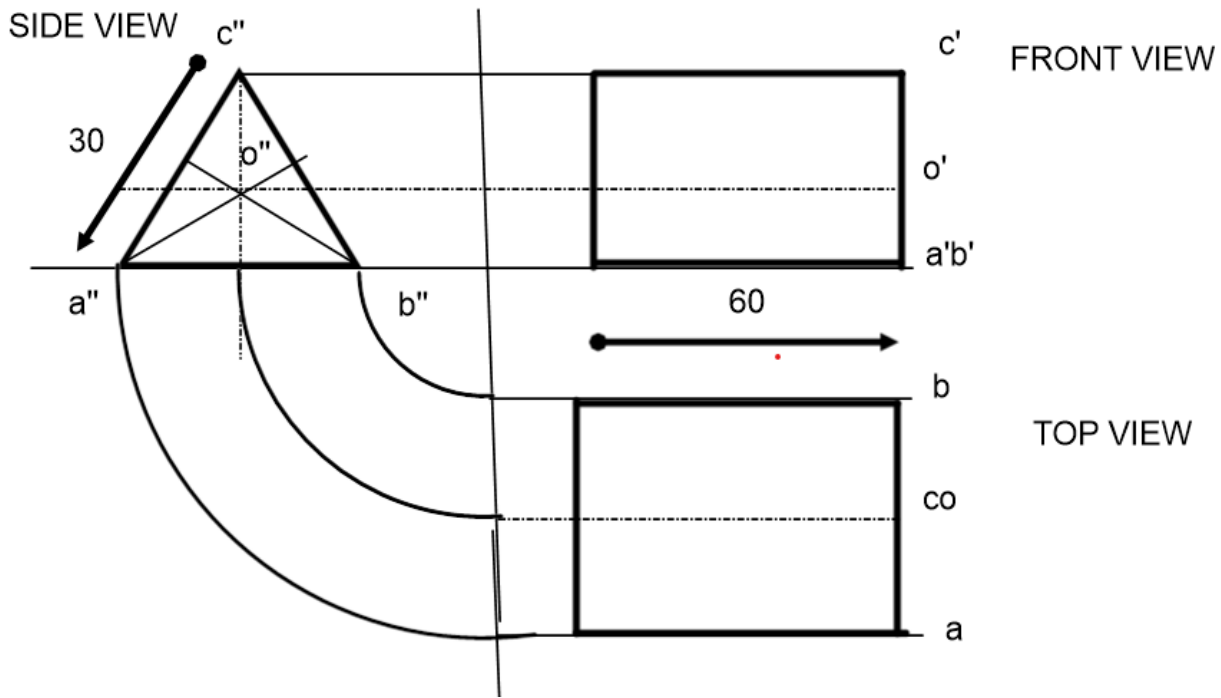

(FIRST ANGLE PROJECTION)

24. A cylinder of 50 mm base diameter and 60 mm axis rests vertically on HP on its base. It is sectioned by a plane perpendicular to VP, inclined at 45 degree to HP. And intersecting the axis at a point 15 mm below its top end. Project its front view and sectional top view.

B

15

60

45°

B

X

Y

φ 50
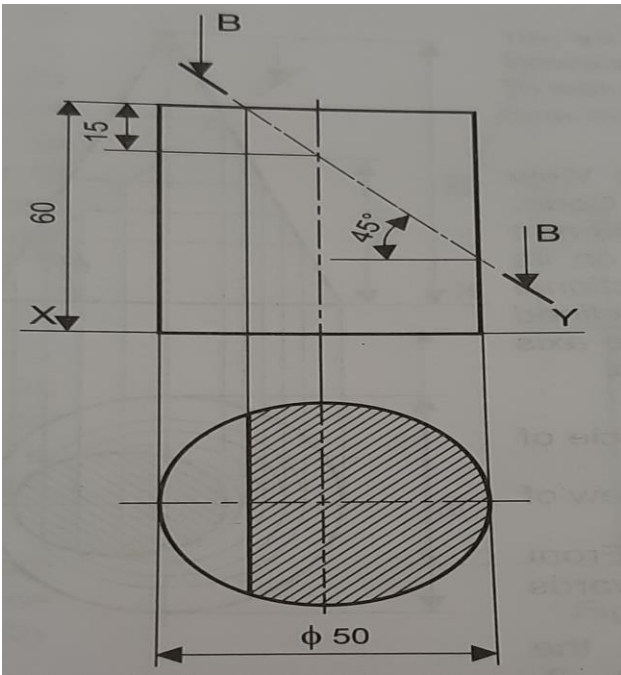
2 x 7 = 14

25. Draw the front view and top view of an equilateral triangular prism, base side 30mm and height 60 mm kept in the horizontal position, with one of its rectangular faces resting on HP and with axis parallel to both HP and VP.

SIDE VIEW   c''   c'   FRONT VIEW

30

o''   o'

a''   b''   a'b'

                                   60

                                                   b

                                                   TOP VIEW

                                                   co

                                                   a

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

20   30   30

60

60   90

SIDE VIEW   FRONT VIEW
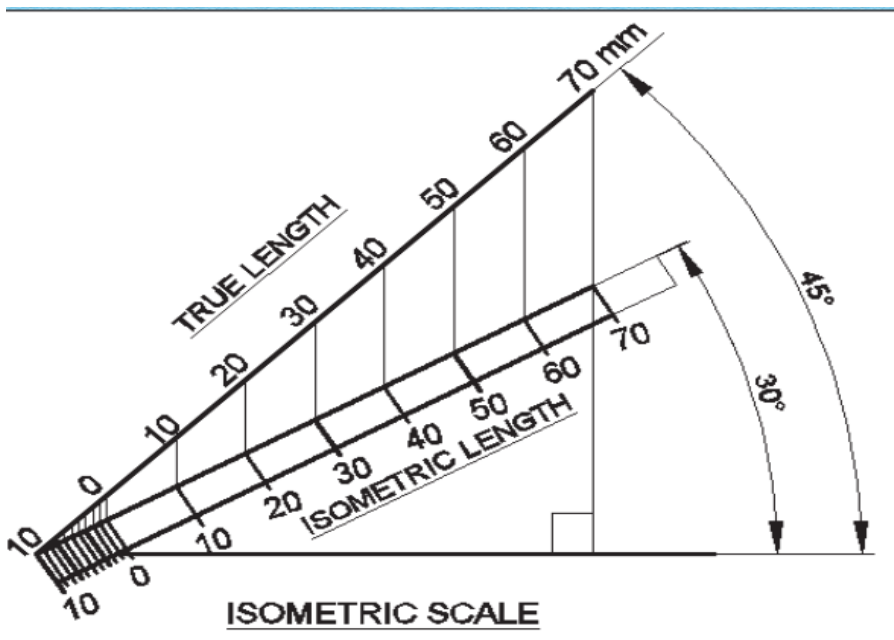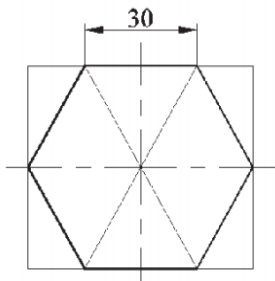
MISSING SIDE VIEW
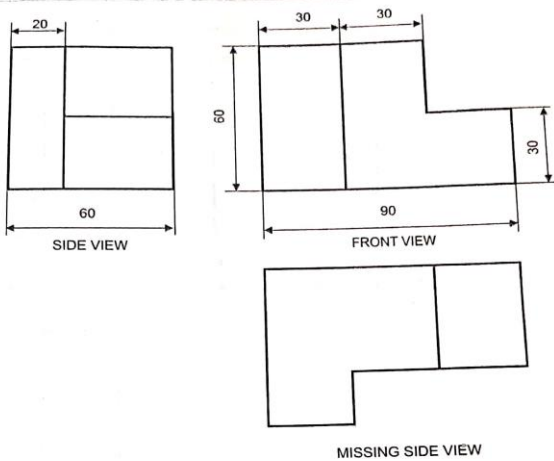
2 x 10 = 20

27. A cone of 50mm base diameter and 60mm, horizontal axis resting on HP with its axis parallel to HP and VP. It is cut by an oblique plane parallel to its generator, above the axis. Project its front view and sectional top view.
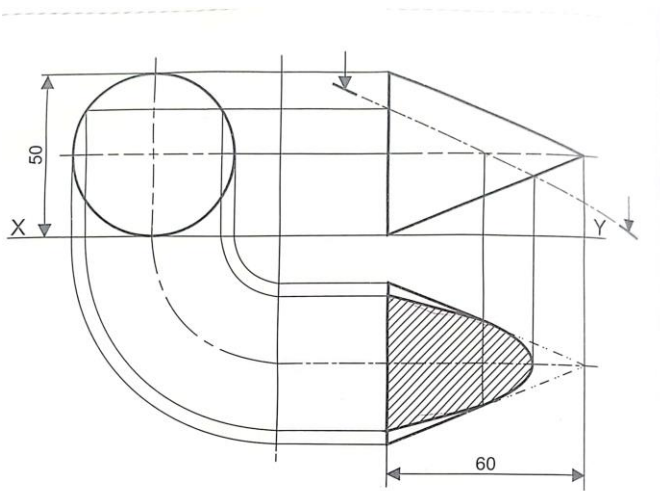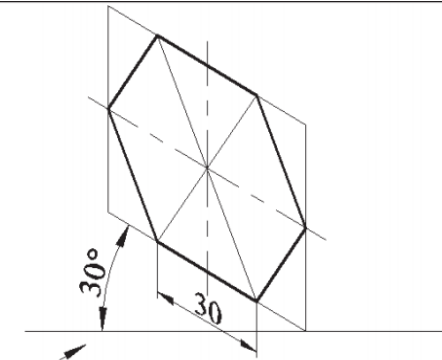
28. a. Construct an isometric scale of 70mm.   (4)

ISOMETRIC SCALE

28.b. Draw the isometric projection of a regular hexagon of base side 30 mm in V.P. keeping two of its bases parallel to H.P.   (6)

30

HELPING FIGURE

30°

30

F

ISOMETRIC PROJECTION