	INDIAN SCHOOL AL WADI AL KABIR	
Class: XI	**Department: SCIENCE 2023 – 24** **SUBJECT: ENGINEERING GRAPHICS**	**Date of submission:** **05.06.2023**
Worksheet No: 3 **WITH ANSWERS**	**UNIT 3: ORTHOGRAPHIC PROJECTIONS OF REGULAR SOLIDS**	**Note:** **A4 FILE FORMAT**
NAME OF THE STUDENT	**CLASS & SEC: XI C/E**	**ROLL NO.**

MULTIPLE CHOICE QUESTIONS

1.Plan is the view from ----------

a) Top side

b) Front side

c) Bottom side

d) Side view

2.Write the conditions for first quadrant

a) Below HP and behind VP

b) Above HP behind VP

c) Above HP and infront of VP

d)None of the above

3.Which one is known as full size scale

a) Scale 1:1

b) Isometric scale

c)Scale 1:2

d)Scale 5:1

4.A vertical line means a line :

a) Perpendicular to VP

b) Parallel to HP

c) Perpendicular to HP

d) None of the above

5.A solid has

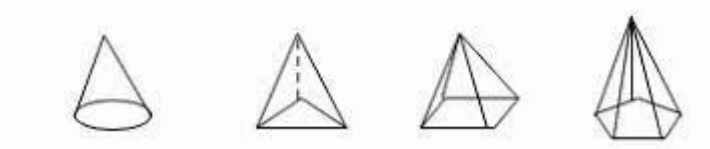
a) 2 dimension

b) 3 dimension

c) 1 dimension

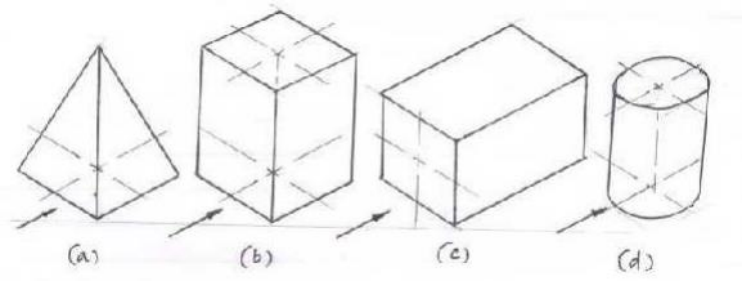
d) None of the above

6. A vertical pentagonal pyramid

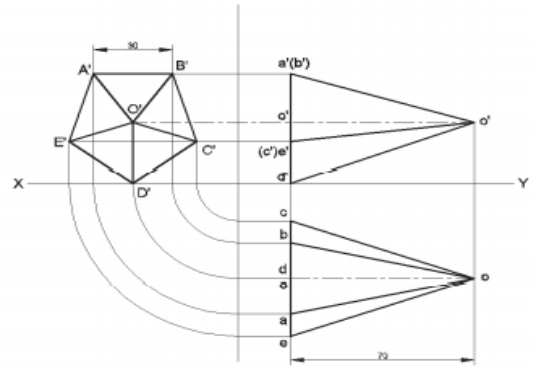


(a) **(b)** **(c)** **(d)**

7. A horizontal solid



8.



In this given figure, identify the position of the axis?

a. Axis is perpendicular to HP
b. Axis is perpendicular to VP
c. Axis is parallel to both HP and VP
d. Axis is perpendicular to HP and parallel to VP

9. Match the LIST I with LIST II

QUADRANT	**POSITION OF THE GIVEN POINT**
1.First	I. Below HP and behind VP
2.Second	ii. Above HP and in front of VP

3.Third	iii. Below HP and in front of VP
4.Fourth	iv. Above HP and behind VP

(a) 1-iii, 2-iv, 3-i, 4-ii

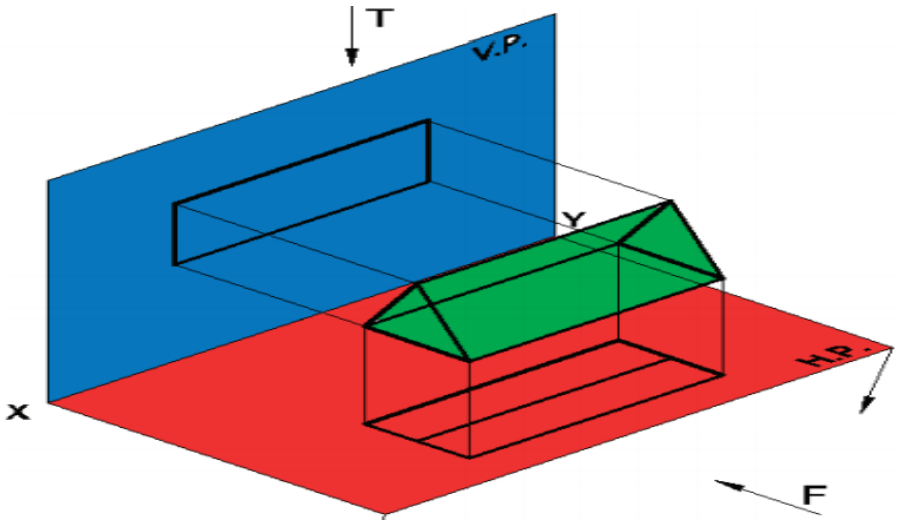
(b) 1-i, 2-iii, 3-ii, 4-iv

(c) 1-iv, 2-ii, 3-iii, 4-i

(d) 1-ii, 2-iv, 3-i,4-iii

Q10 to Q12 – Answer Read the following paragraph and answer the following questions.

John is studying in class XI and he is very much interested in drawing, being an engineering graphics student, he sketched the three-dimensional figure of a solid in his drawing book with respect to the principle planes of projections (HP and VP). Analyze the given picture and answer the following questions.



10. Identify the given solid from the figure?

a. Square prism
b. Triangular prism
c. Rectangular prism

d. Triangular pyramid

11. According to the above given figure the axis line is?

a. Perpendicular to HP
b. Parallel to HP and Perpendicular to VP
c. Perpendicular to HP and VP
d. Parallel to both HP and VP

12. In this given figure the front view and top view will be?

a. Rectangle
b. Triangle
c. Square
d. Line

DESCRIPTIVE TYPE QUESTIONS

1. A line AB 60 mm long has its end A, 5 mm from HP and 25 mm from VP.The line is inclined to HP at 30 degree and parallel to VP.Draw its front view and top view in first quadrant.

2. A circle of 50 mm diameter is having its surface making 45 degree with HP and perpendicular to VP.Draw its front view and top view.

3.Draw the front view and top view of a square pyramid of 40 mm base edges and 50 mm height with its base resting on HP and two of its base sides parallel to VP.

4.The frustum of a cone of base diameter = 50 mm and sectioned face diameter = 25 mm and vertical axis = 30 mm is resting on its base.Draw its front view and top view.

5. A regular pentagonal prism,base side 30 mm and height 50 mm is resting on one of its rectangular faces on HP and its pentagonal ends perpendicular to HP and VP.Draw its front view and top view.

6.The frustum of a sphere of 50 mm diameter and 40 mm vertical axis , is resting on HP with its sectioned face horizontal.Draw its front view and top view.

7.Draw the front view and top view of a regular pentagonal pyramid of base edges 25 mm and axis 45 mm long resting on a corner of its base on HP,with a base edge on top, parallel to HP.its axis is horizontal and parallel to VP.

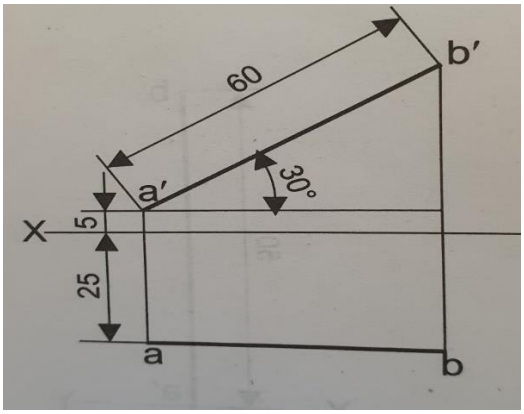
8.Draw the front view and top view of a hexagonal pyramid,of 25 mm base edges and 50 mm vertical axis, standing on the HP on its base, with two edges of its base parallel to the VP.

ANSWER KEY – MULTIPLE CHOICE QUESTIONS	
1	a) Top side
2	c) Above HP and in front of VP
3	a) Scale 1:1
4	c) Perpendicular to HP
5	b) 3 dimension
6	d)
7	c)
8.	c) Axis is parallel to both HP and VP
9	d) 1-ii, 2-iv, 3-i,4-iii

10	b) Triangular prism
11	d) Parallel to both HP and VP
12	a) Rectangle

SOLUTIONS FOR DRAWINGS

Q.1



Q.2

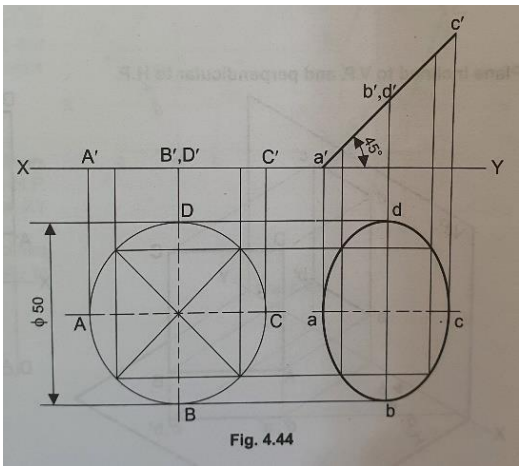


Fig. 4.44

Q.3

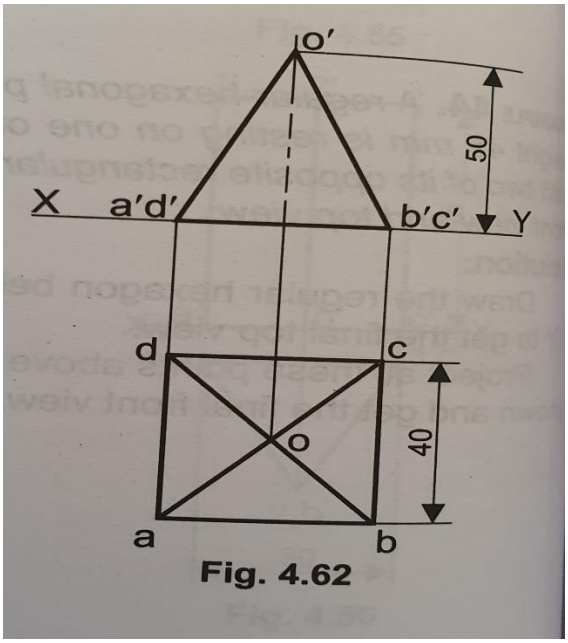


Fig. 4.62

Q.4

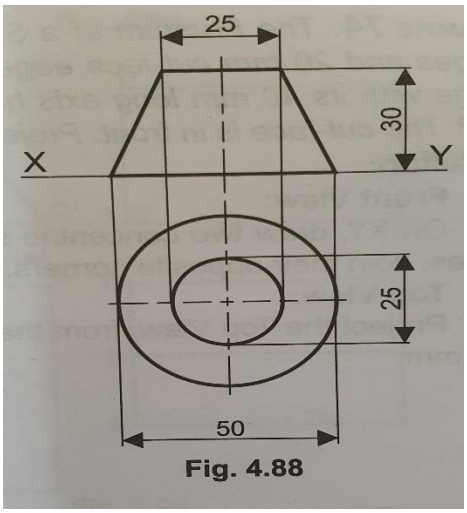


Fig. 4.88

Q.5.

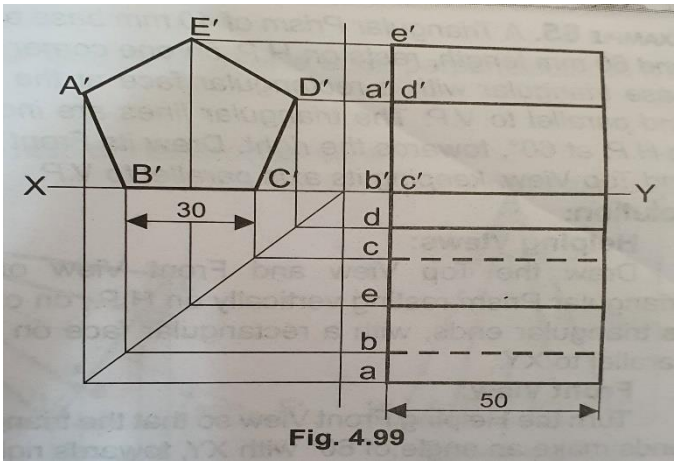
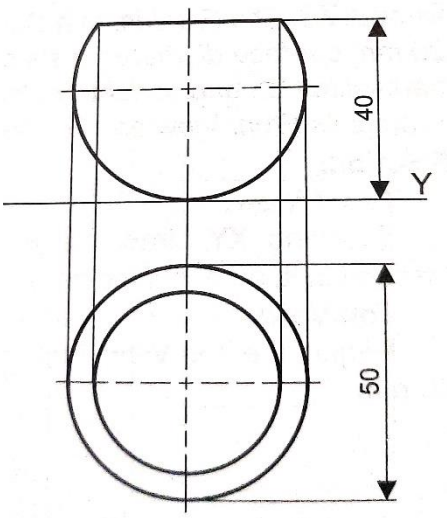


Fig. 4.99

Q.6.



Q.7.

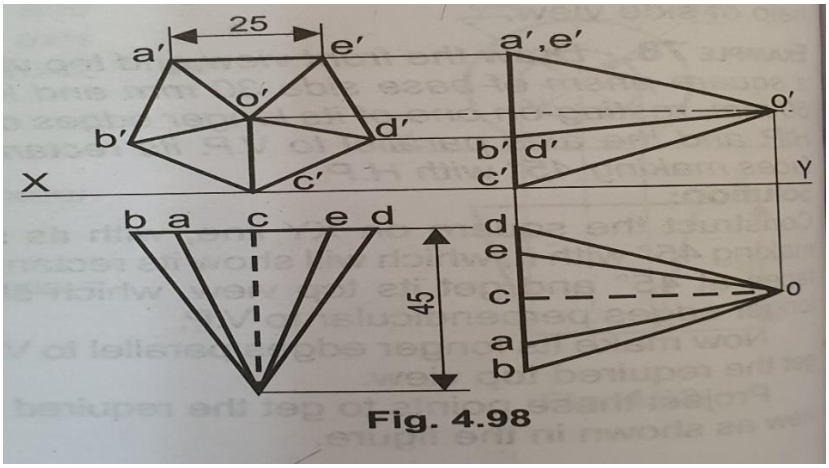
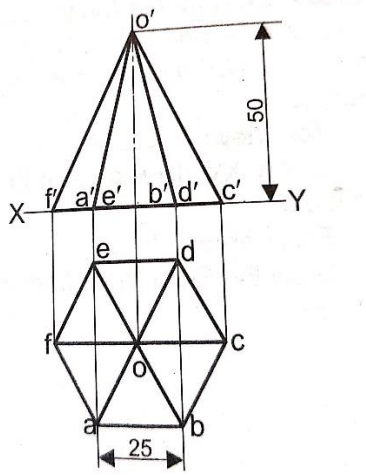


Fig. 4.98

Q.8



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