

	INDIAN SCHOOL AL WADI AL KABIR		
Class: XI	Department: SCIENCE 2026 – 27 SUBJECT: ENGINEERING GRAPHICS	Date: 18/08/2026	
Worksheet No: 4 WITH ANSWERS	UNIT 4: SECTIONS OF SOLIDS	Note: A4 FILE FORMAT	
NAME OF THE STUDENT:		CLASS & SEC: XI C	ROLL NO.

MULTIPLE CHOICE QUESTIONS

1. A solid is cut by a section plane parallel to its base. The true shape of the section of a cone will be:

- a) Triangle
- b) Circle
- c) Ellipse
- d) Rectangle

2. A cone is cut by a section plane parallel to one of its generators. Which curve is obtained in the section?

- a) Circle
- b) Ellipse
- c) Parabola
- d) Rectangle

3. What is a section view in engineering graphics?

- a) A view that shows the interior of a solid object
- b) A view of a solid object from the top
- c) A view of a solid object from the side
- d) A view of a solid object with hidden lines only

4. Which of the following solids is typically sectioned to reveal its internal structure?

- a) Sphere
- b) Cone
- c) Cube
- d) Cylinder

5. Which of the following section types is used to show both the internal and external features of an object?

- a) Full section
- b) Half section
- c) Revolved section
- d) Removed section

6. Which type of section view is used when only a small part of the object is to be sectioned?

- a) Full section b) Partial section
- c) Revolved section d) Removed section

7. Which of the following is true for a section view of a solid with a circular hole?

- a) The hole will be shown as a square
- b) The hole will be shown as a circle
- c) The hole will be ignored in the section view
- d) The hole will be shaded differently

8. Which one of these cannot be obtained by sectioning a cone?

- a) Parabola b) Circle
- c) Ellipse d) Square

9. When a vertical rectangle is revolved about one of its sides, its side will generate a -----

- a) Cylinder b) Cone
- c) Sphere d) Pyramid

10. When the axis of a regular solid is perpendicular to VP, then its base will be seen in :

- a) Front view b) Top view
- c) Side view d) None of the above

11. Which one of the following is not a principal plane of projection?

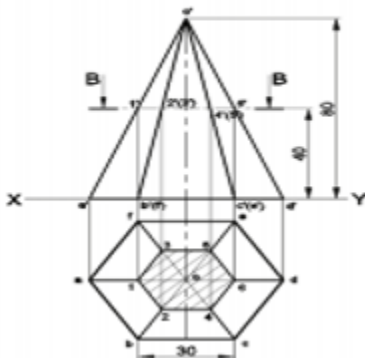
- a) HP b) VP
- c) PP d) None of these

12. A plan of an object is

- a) Left hand side view
- b) Top view
- c) Front view
- d) Right hand side view

13.

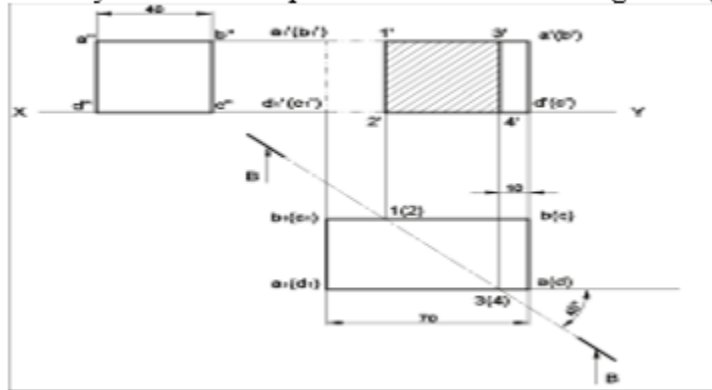
Which type of section plane is happening in this given figure?



- a) Vertical section plane
- b) Horizontal section plane
- c) Oblique section plane
- d) Inclined section plane

14.

Identify the solid and position of axis from the given figure?



- a) Cube and axis parallel to HP and VP
- b) Square prism with axis parallel to VP
- c) Square prism with axis parallel to both HP and VP
- d) Cube with axis perpendicular to VP

Q15 to Q17 – Answer Read the following paragraph and answer the following questions.

Anne celebrated her birthday last week and she invited all her friends and relatives for her birthday party, she had a nice birthday cap with beautiful decorations on it, being an engineering graphics student, she was very curious on the topic **Sections of solids**, so after the party she sketched the various section planes of her birthday cap and analysed various section views. Analyse the figure and answer to the following question:



15. Identify the solid and position of the axis.

- a) Cylinder & axis perpendicular to HP
- b) Cone & axis parallel to HP
- c) Cone & axis perpendicular to HP
- d) Cylinder & axis parallel to both HP and VP

16. What will be the front view and top view of this solid?

- a) Triangle & Circle
- b) Circle & Triangle
- c) Rectangle & Circle
- d) Circle & Rectangle

17. If she wants to cut the solid vertically, where does she have to draw the cutting plane?

- a) Front view
- b) Top view
- c) Side view
- d) Bottom view

Descriptive Type Questions

1. A sphere of 50 mm diameter resting on HP is cut vertically parallel to VP. Project its top view and sectional front view.

2. A square prism of 45 mm base edges and 45 mm height, resting on HP with all of its vertical rectangular faces, inclined to VP at 45 degree. It is sectioned horizontally 30 mm above its base. Project its front view and sectional top view.

3. A vertical pentagonal prism of 30 mm base edges and 50 mm height, resting on HP on its base with one edge of its base on the back side parallel to VP is sectioned by a plane perpendicular to VP inclined to HP at 60 degree towards the right. Project its front view and sectional top view.

4. A cone of 50 mm base diameter and 60 mm long horizontal axis, is resting on the HP with its vertical base at right angles to VP. It is sectioned by a horizontal plane, above its axis. Project its front view and sectional top view.

5. A triangular pyramid of 50 mm base edges and 60 mm long horizontal axis, is resting on one edge of its base which is at right angles to VP. It is sectioned by an oblique plane, inclined to HP towards the right. Project its front view and sectional top view.

6. A triangular pyramid of 50 mm base edges and 60 mm long horizontal axis, is resting on one edge of its base, which is at right angles to VP. It is sectioned by a horizontal plane above its axis. Project its front view and sectional top view.

7. 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 left and intersecting the axis at a point 20 mm away from one of its ends. Project its front view and sectional top view.

8. A cylinder of 50 mm base diameter and 60 mm long is resting on HP on its curved surface, with its circular ends at right angles to VP. It is sectioned by a horizontal plane, above its axis. Project its front view and sectional top view.

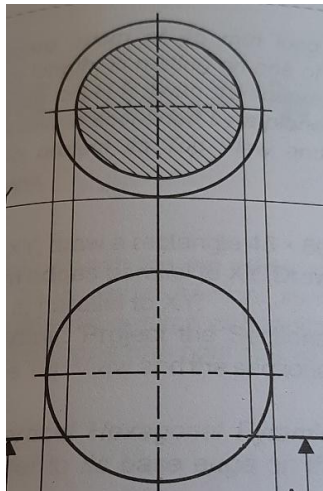
MULTIPLE CHOICE QUESTIONS

ANSWERS

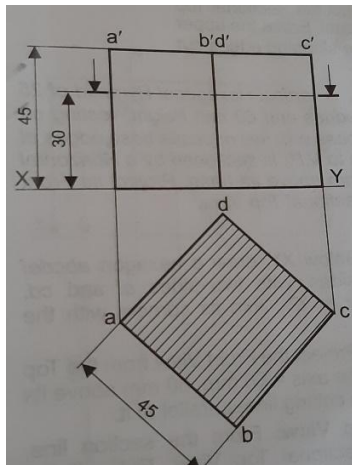
Q.NO	ANSWERS
1	b) Circle
2	c) Parabola
3	a) A view that shows the interior of a solid object
4	d) Cylinder
5	a) Full section
6	b) Partial section
7	b) The hole will be shown as a circle
8	d) Square
9	a) Cylinder
10	a) Front view
11	c) PP
12	b) Top view
13	b) Horizontal section plane
14	c) Square prism with axis parallel to both HP and VP
15	c) Cone & axis perpendicular to HP
16	a) Triangle & Circle
17	b) Top view

SOLUTIONS FOR DESCRIPTIVE TYPE QUESTIONS

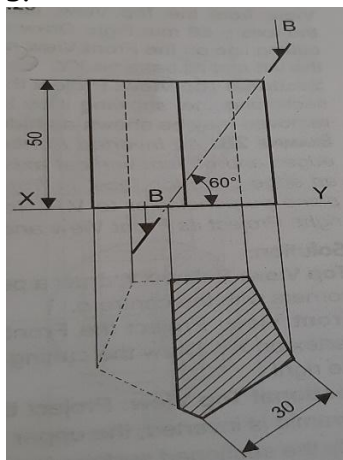
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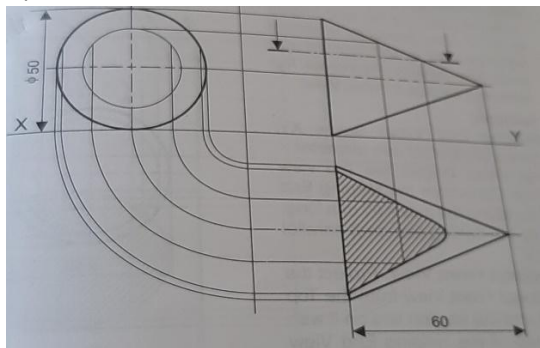
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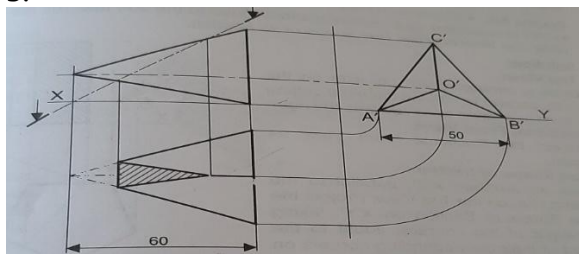
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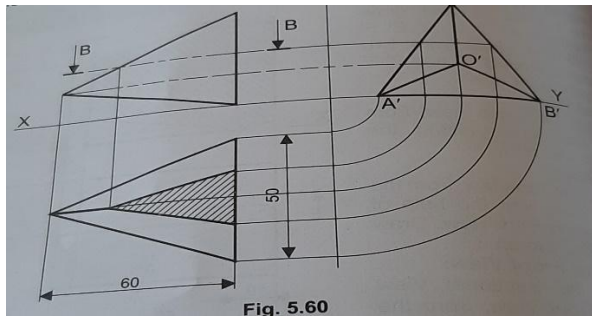
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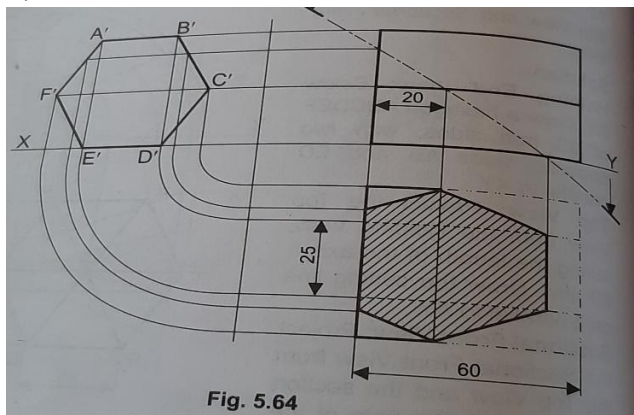
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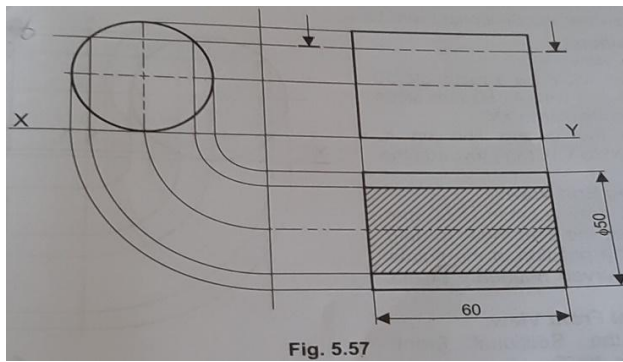
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7.



8.



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