



INDIAN SCHOOL AL WADI AL KABIR

ASSESSMENT II -2023-24

CLASS: XI
DATE: 07-12-2023

Sub: ENGINEERING GRAPHICS (046)

MAX.MARKS: 70
TIME: 3 HOURS

General Instructions:

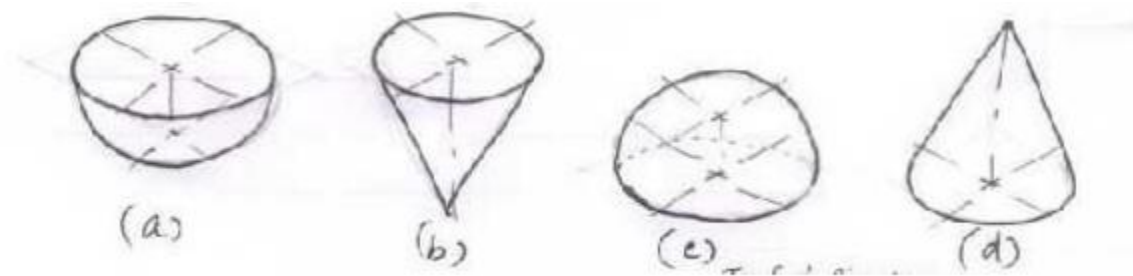
- (i) Attempt all the questions.
- (ii) Use both sides of the drawing sheet, if necessary.
- (iii) All dimensions are in millimeters.
- (iv) Missing and mismatching dimensions, if any, may be suitably assumed.
- (v) Follow the SP: 46 – 2003 revised codes. (with first angle method of projection)

20 x 1 = 20

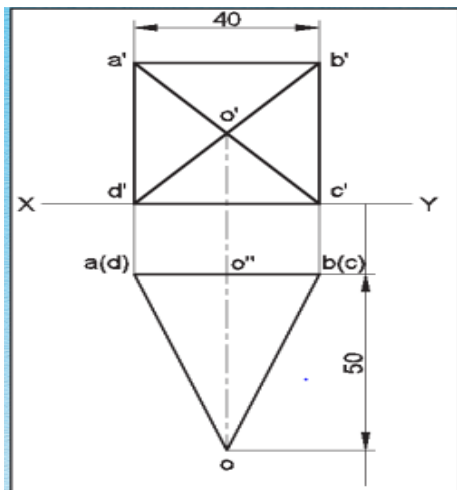
SECTION – A

- 1.----- is defined as the universal language of engineers.
 - a. Orthographic
 - b. Engineering graphics
 - c. Isometric
 - d. Dimensions
2. If the front view and top view of a point are 50 mm above and 40 mm below XY line respectively, then the point is located in?
 - a. Second quadrant
 - b. First quadrant
 - c. Third quadrant
 - d. Fourth quadrant
3. Which line is used as a boundary line of the drawing sheet?
 - a. Continuous thin line
 - b. Hidden line
 - c. Construction line
 - d. Continuous thick line

4. A hemisphere resting on HP with its circular face on it.



5. Identify the solid and the position of axis line from the given figure



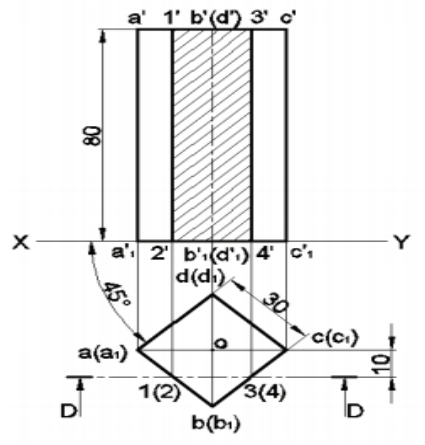
a) Cone and axis perpendicular to HP

b) Square pyramid and axis perpendicular to VP

c) Triangular pyramid and axis perpendicular to VP

d) Cylinder and axis perpendicular to HP

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



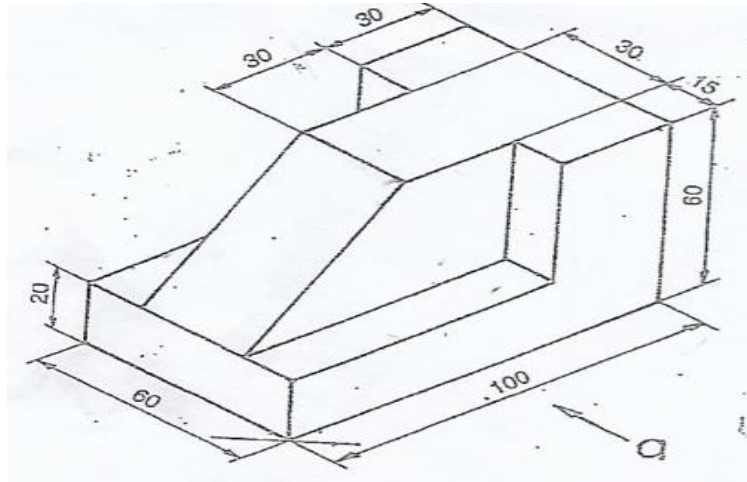
a) Vertical section plane

b) Horizontal section plane

c) Oblique section plane

d) Inclined section plane

7. Identify which side view is viewable to the observer and where we have to represent it?



- a) Right side view and represent at left side of front view
- b) Left side view and represent at left side itself
- c) Right side view and represent at left side of top view
- d) Left side view and represent at right side of front view

8. Match the LIST I with LIST II

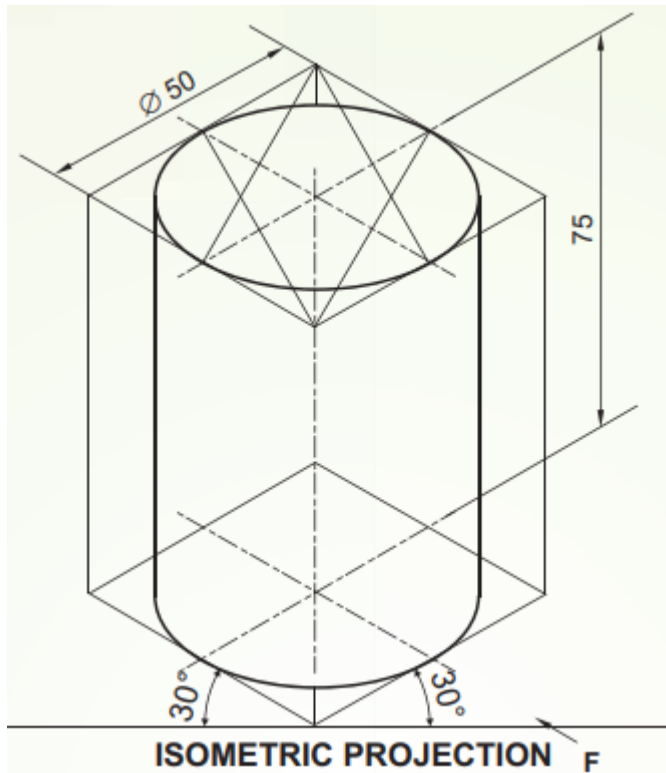
LIST I	LIST II
1.All sides & angles equal	i.Front view
2.Sectioning of cone	ii.Top view
3.Elevation	iii.Equilateral triangle

4. Plan

iv. Ellipse

- 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

9. Choose the incorrect statement/s for the given figure.

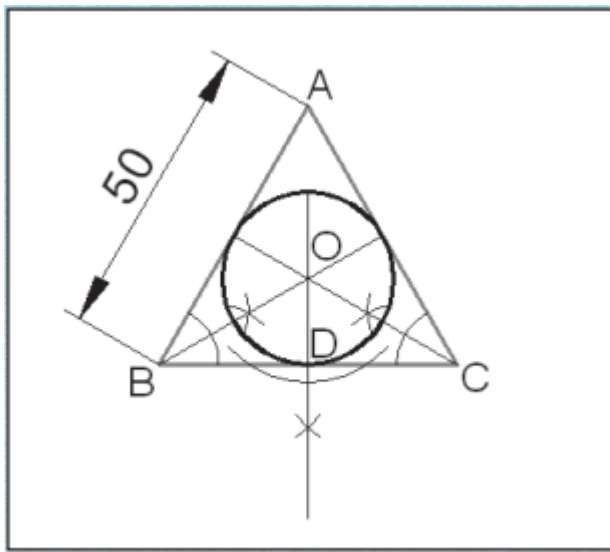


- i) The figure shows an image of a cylinder
- ii) The figure shows an image of a cone
- iii) The front view of the figure will be a rectangle.

iv) The axis of the figure is perpendicular to VP.

- a) (i) and (iii) only
- b) (ii) and (iii) only
- c) (i) only
- d) (ii) and (iv) only

10. Analyse the figure given below and explain the process.



- a) Tangent
- b) Inscribing of circle
- c) Circumscribing of circle
- d) Secant

11. The line of intersection of the vertical plane and horizontal plane is called -----

- a) Plane of projection
- b) Station point
- c) Reference line/XY line
- d) Projectors

12. ----- is the method of representing the exact shape of an object in two or more views.

- a) Isometric
- b) Perspective
- c) Axonometric
- d) Orthographic

13. The arrow heads in the machine blocks indicates the -----

- a) Sectioning
- b) Direction of viewing
- c) Dimensioning
- d) Fastening

14. According to first angle method of projection, below to the XY line -----is represented.

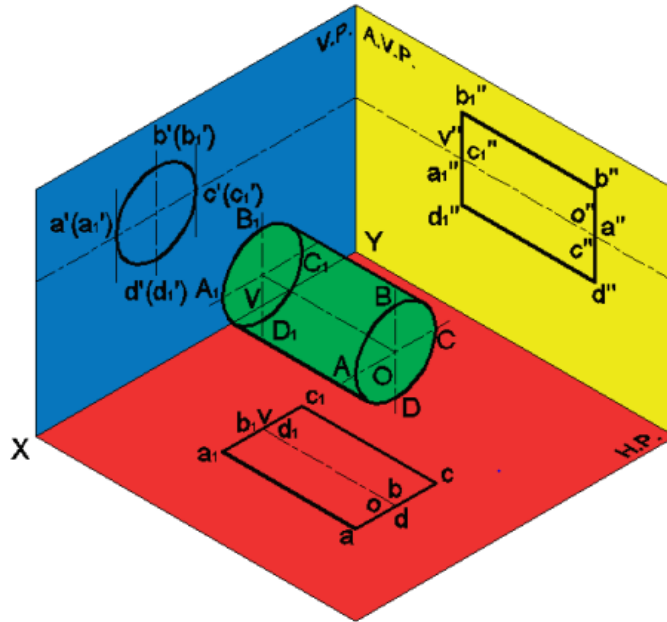
- a. Front view
- b. Left side view
- c. Top view
- d. Right side view

15. The interior angles of a regular hexagon is -----

- a) 120 degree
- b) 135 degree
- c) 108 degree
- d) 105 degree

Q16. to 20: Read the following paragraph and answer the questions given below

John is studying in class XI and he is very much passionate 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.



16. The axis of the cylinder is -----

- a) Perpendicular to VP
- b) Parallel to VP
- c) Parallel to both HP and VP
- d) Perpendicular to HP

17. What will be the top view of the given solid?

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

18. If John cuts the solid by a horizontal section plane, he has to draw the cutting plane in -----

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

19. This figure is represented according to which angle method of projection?

- a. First angle method of projection
- b. Second angle method of projection
- c. Third angle method of projection.
- d. Fourth angle method of projection

20. In this given figure the front view will be?

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

SECTION B

2 x 3 = 6

21. Construct a rhombus PQRS with diagonals 46 mm and QS = 60 mm.

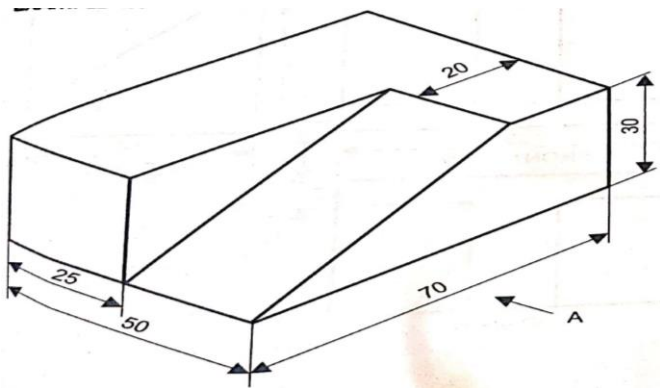
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22. Circumscribe a circle about a regular hexagon ABCDEF.

2 x 5 = 10

23. 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.

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



2 x 7 = 14

25. A hexagonal pyramid of 25 mm base edges and 60 mm axis is resting on its base on HP. With two opposite base edges parallel to VP. It is sectioned by a vertical plane parallel to VP and 10 mm from its axis. Project its top view and sectional front view.

