



INDIAN SCHOOL AL WADI AL KABIR

Second Assessment 2022-23

SUB: Engineering Graphics (046)

Date: 27 /11/2022

Time Allowed :3 hour

Class: XI

Maximum Marks: 70

GENERAL INSTRUCTIONS:

- (i) Attempt all the questions.
- (ii) Use both sides of the drawing sheet, if necessary.
- (iii) All dimensions are in millimetres.
- (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)

SECTION – A

Q 1 to Q 8 – Answer the following multiple-choice questions. Print the correct choice on your drawing sheet:

1. Which type of line is used to represent visible edges?

- a. Continuous thick lines
- b. Continuous thin lines
- c. Centre lines
- d. Dimension lines

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. Parallelogram, trapezium are all examples for?

- a. Polygon
- b. Frustums
- c. Quadrilaterals
- d. Triangles

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

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

5. The cutting plane line is denoted by?

- a) Long chain thin line and thick at the ends
- b) Long chain thick line and thin at the ends
- c) One thick and one dotted
- d) Long chain thin line and dotted at the ends

6. According to First angle method of projection, the Left side view should be drawn at.....

- a) Left side of the front view
- b) Left side of the top view
- c) Right side of the front view
- d) Right side of the top view

7. To show the interior parts of a machine blocks, engineers adopted a new technique and it is called as -----

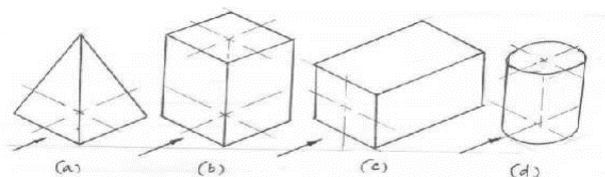
- a) Sectioning
- b) Patching
- c) Dimensioning
- d) Fastening

8. According to first angle method of projection, for all vertically kept cylinder the front view will be -----

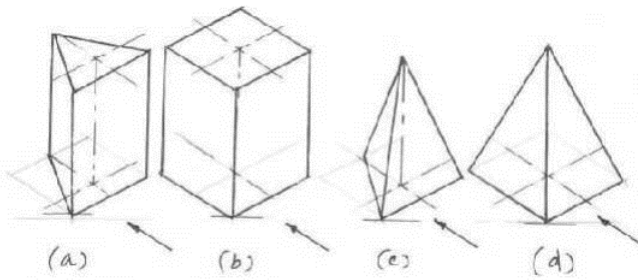
- a) Square
- b) Rectangle
- c) Hexagon
- d) Pentagon

Q 9 to Q 14 – Select the correct option corresponding to the orientation of the given figures.

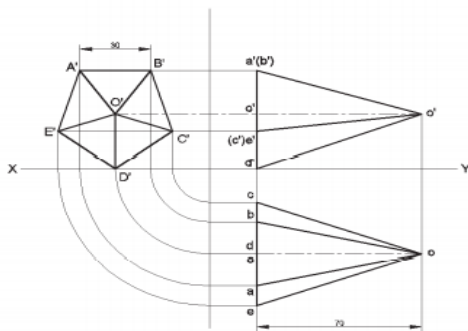
9. A horizontal solid



10. A vertical square prism with its axis perpendicular to HP and parallel to VP.



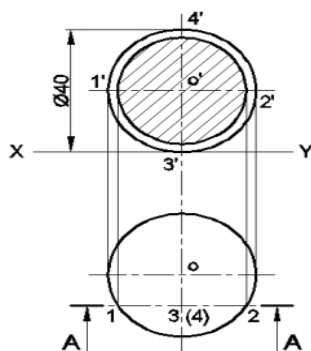
11.



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

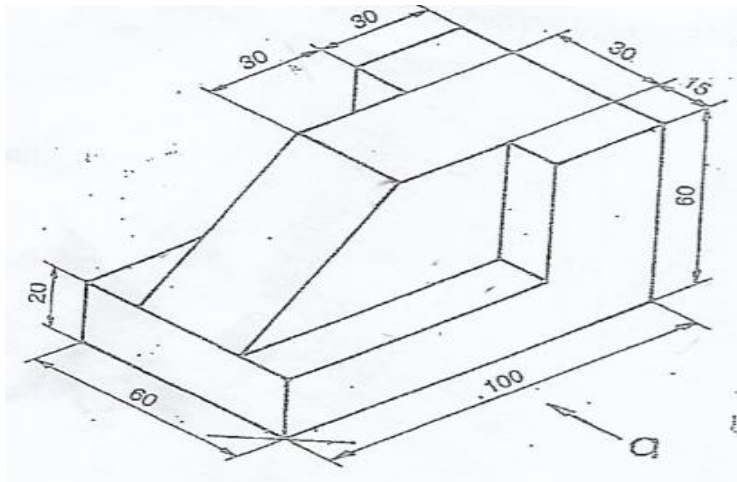
- Axis is perpendicular to HP
- Axis is perpendicular to VP
- Axis is parallel to both HP and VP
- Axis is perpendicular to HP and parallel to VP

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



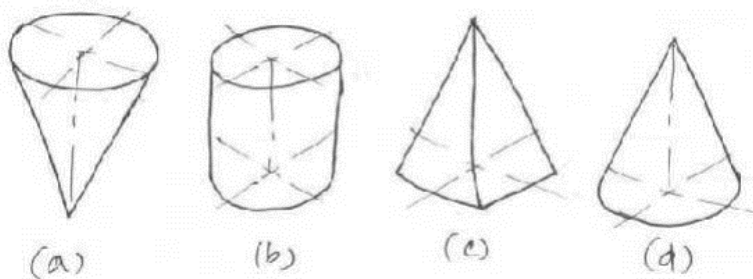
- Vertical section plane
- Horizontal section plane
- Oblique section plane
- Inclined section plane

13. 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

14. An inverted solid



Q15 – Two statements are given – one labelled assertion (A) and the other labelled reason (R). Select the correct answer to the following question from the codes (a), (b), (c) and (d) as given below:

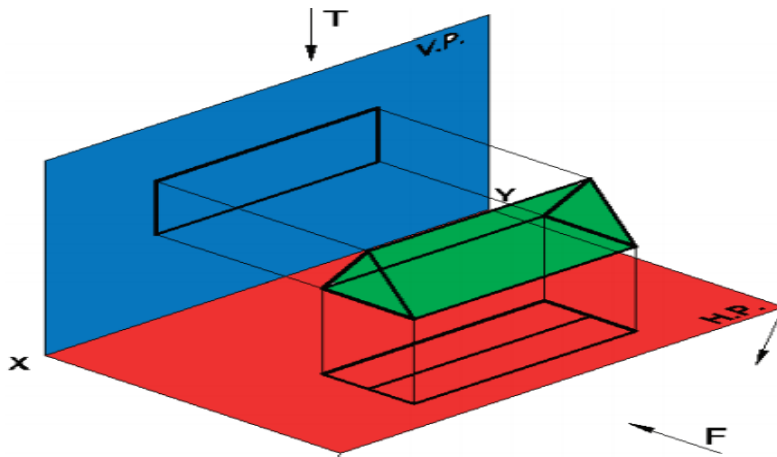
- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true and R is not the correct explanation of A.
- c) A is true but R is false.
- d) A is false and R is also false.

15. **A:** In orthographic projection, it is assumed that there are five quadrants.

R: Above HP and in front of VP is the condition for third quadrant.

Q16 to Q 20 – 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). Analyse the given picture and answer the following questions.



16. Identify the given solid from the figure?

- a. Square prism
- b. Triangular prism
- c. Rectangular prism
- d. Triangular pyramid

17. 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

18. 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

19. In this given figure, the true shape of the solid can be identified only from?

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

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

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

SECTION – B

3 X 2 = 6

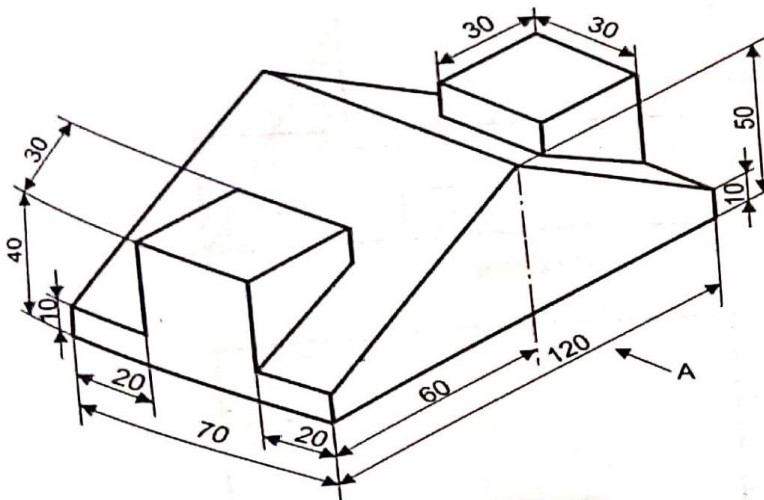
21. Construct a trapezium ABCD, having its sides AD = 30 mm, DC = 25 mm, CB = 35 mm and the difference of parallel sides is 20 mm.

22. Draw the given equilateral triangle of side = 50 mm. Inscribe a circle in it.

5 X 2 = 10

23. Draw the projections of a circular lamina of 30 mm diameter. The lamina is inclined at an angle of 45 degree to V.P

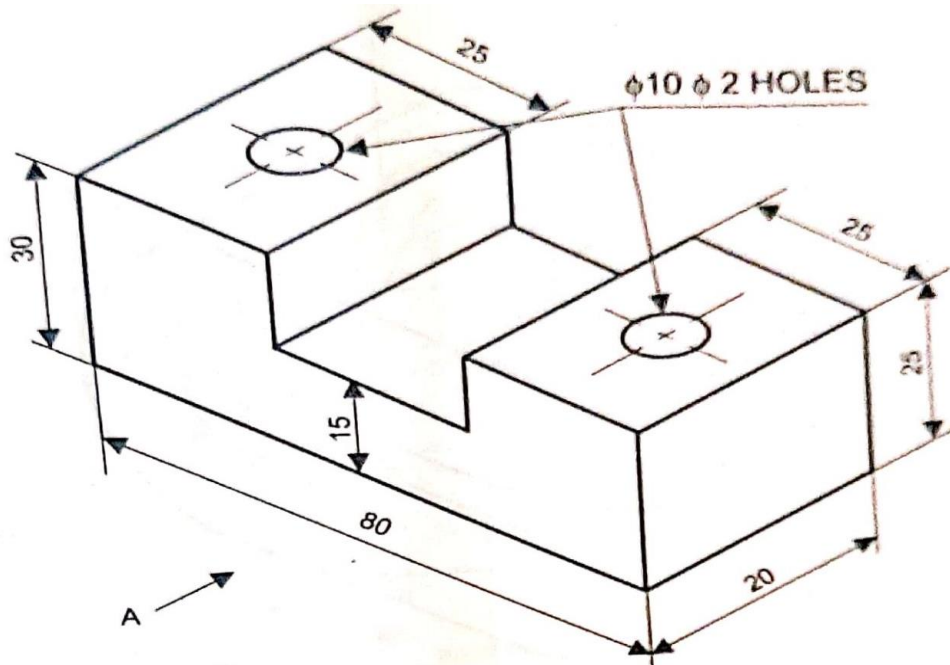
24. Project front view, side view and top view of the machine block, to scale 1:1



7 x 2 = 14

25. A hexagonal pyramid is resting on its base on the ground with base side equal to 30 mm and axis length of 80 mm. A horizontal section plane, bisects the 80 mm long axis. The axis is perpendicular to H.P. Draw the Front View and Sectional Top View.

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



10 X 2 = 20

27. 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 right and intersecting the axis at a point 20 mm away from one of its ends. Project its Front view and Sectional top view.

28. A pentagonal prism having a 30 mm edge of its base and an axis of 60 mm length is resting on one of its rectangular faces with its axis parallel to both HP and VP. Draw the projections of the prism.
