



KITH & KIN INTERNATIONAL COLLEGE

7/11 Kaoli Olusanya Street, Owode Ibeshe, Ikorodu, Lagos State.

FIRST TERM EXAMINATION 2025/2026 ACADEMIC SESSION

NAME					
SUBJECT	TECHNICAL DRAWING 1 & 2	CLASS	SS2	DURATION	2 ½ HOURS

INSTRUCTIONS: This booklet consists of two papers. Answer **paper 1** in your Objective Test answer sheet and **paper 2** in your drawing paper. **Paper 1** will last for **1 hour** after which the answer booklet will be collected. Do **not** start **paper 2** until you are told to do so. **Paper 2** will last for **1 ½ hours**.

PAPER 1

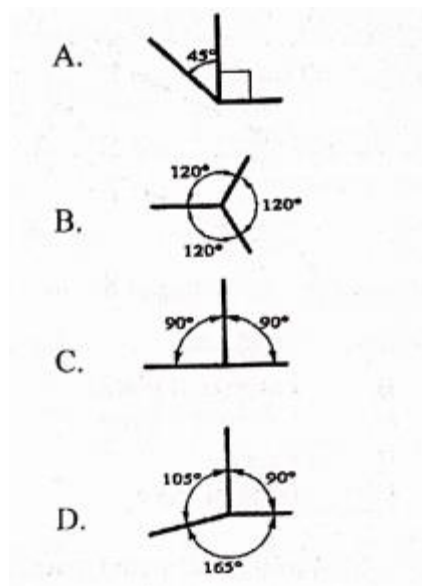
OBJECTIVE (40 MARKS)

- The number of bisectors required to obtain a 7.5° from 120°
 - two
 - three
 - four
 - five
- The sum of the interior angles of the polygon shown in figure below is

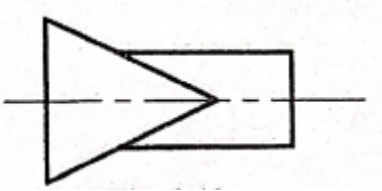


- 180°
 - 270°
 - 360°
 - 540°
- In the development of solid, the joint line is also called
 - End line
 - Edge view
 - seam
 - centre line
 - an example of plane figure is
 - cone
 - cube
 - deltoid

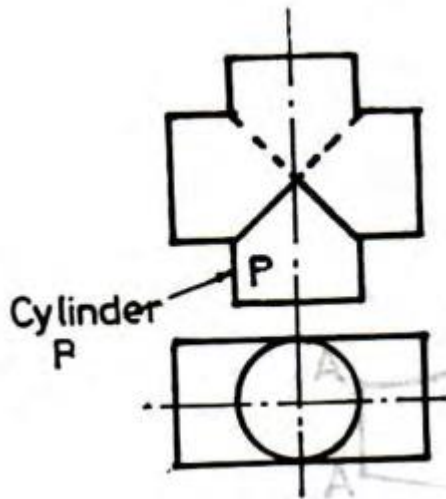
- box
- Oblique drawing is the type of drawing with the axes at
 - 30° and 30°
 - 60° and 30°
 - 45° and 45°
 - 90° and 30°
 - Identify isometric axes from the following



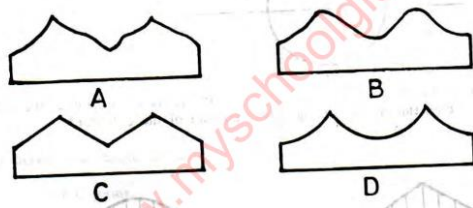
7. The pictorial drawing in which the length of the object drawn is reduced by half along the receding axis is
- cavalier
 - cabinet
 - isometric
 - trimetric
8. The plan shown in figure below represents the interpenetration of cylinder and



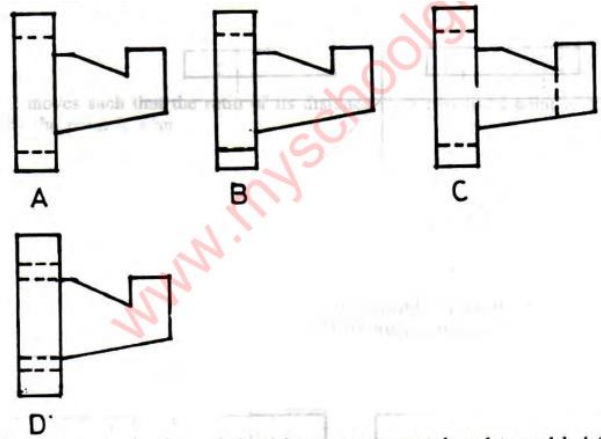
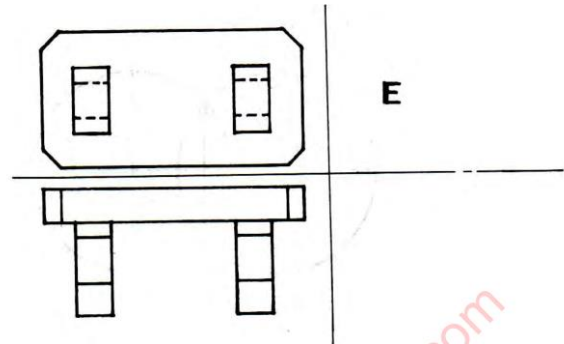
- Hexagonal
 - Hexagonal pyramid
 - Square prism
 - Square pyramid
- 9.



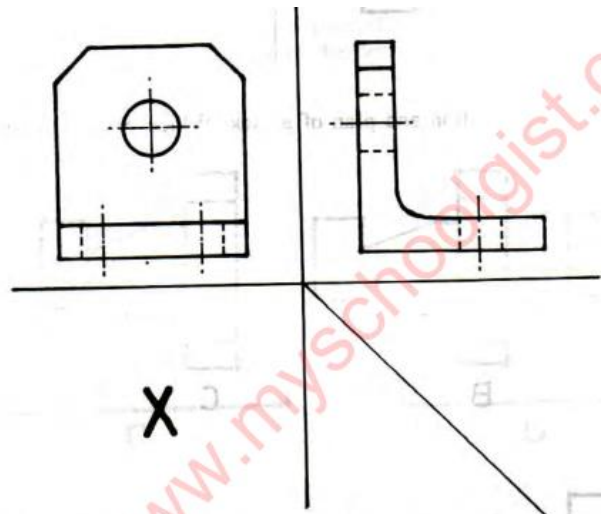
The figure above shows the elevation and the plan of two intersecting cylinders. Which of the following option represent the correct surface development of cylinder P?



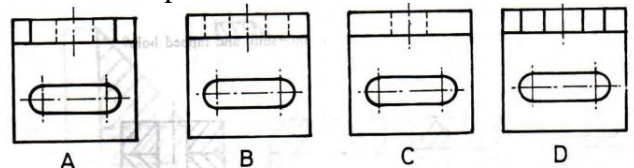
10. The figure below shows the elevation and plan of a rack. Which of the option shows correctly the view E?



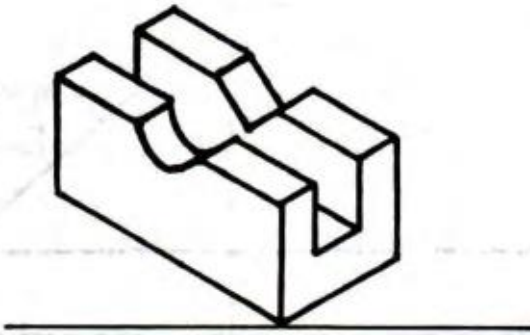
- 11.



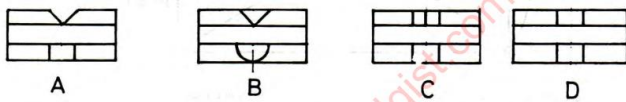
The front and end elevation of an object is given in the figure above. Which of the following option is the correct plan at X?



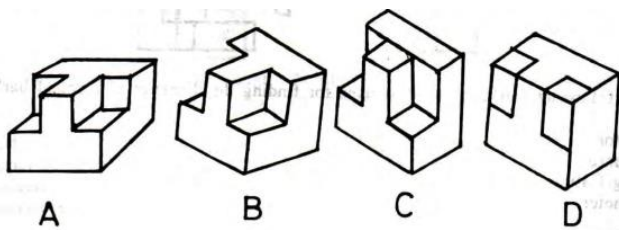
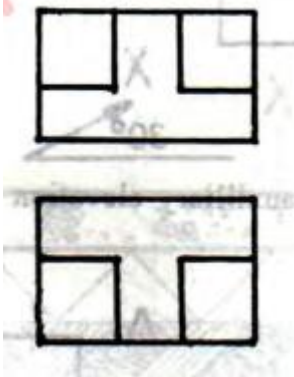
12. The figure below is an isometric view of a cast.



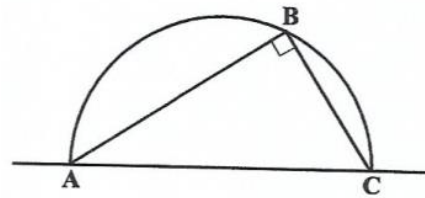
Which of the following option represent the correct plan of the cast?



13. Which of the following option represent a correct isometric view of the figure below?

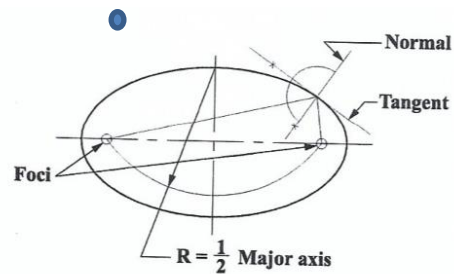


14. The diagram below shows the construction of a triangle when you are given _____



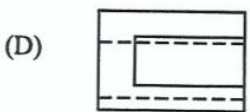
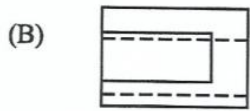
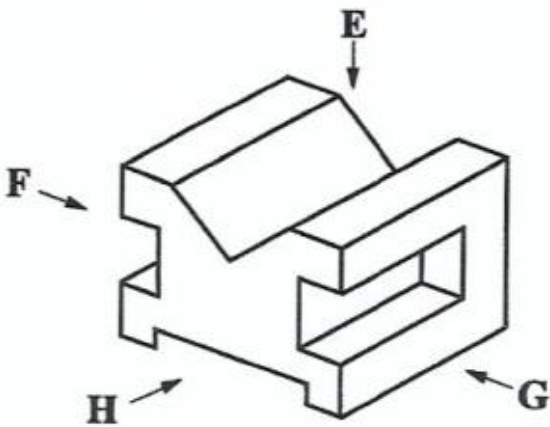
- A. altitude and vertical angle
B. hypotenuse and one angle
C. altitude and base angle
D. perimeter and base angle

15. The diagram below illustrate the proper method of _____

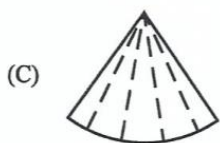
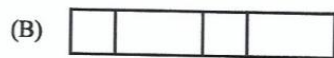


- construct an ellipse with trammel method
- constructing hyperbola with conic section
- finding the focal and the normal and the tangent of an ellipse
- finding the focus of a parabola and tangent at a point

16. Producing the orthographic projection of the diagram above with view G as the front, the end view H will be _____



17. Which of the following shows development of a cylinder that is cut obliquely at both end?



18. The figure below is surface development of a _____

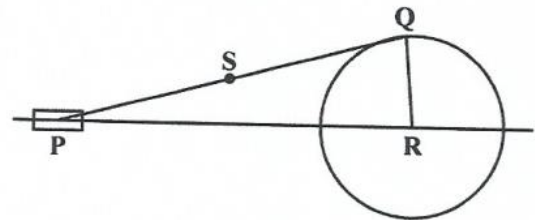


- A. truncated cone
- B. truncated cylinder
- C. truncated pyramid
- D. cylinder

19. The major difference between an ellipse, a parabola and a hyperbola is determined by the

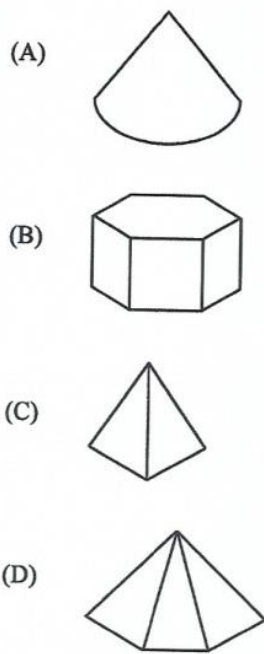
- A. location of the foci
- B. shape of the curve board
- C. location of the directrix
- D. eccentricity of the curve.

20. In the diagram below crank QR rotates about a fixed point R, a rod PQ is pinpointed to the crank at Q and freely slide in the guide at P. The locus traced by point S for one revolution of QR is



- A. a cone
- B. an ellipse
- C. a circle
- D. oval.

21. Which of the following is a view of a right square pyramid?



22. If the drawing below is produced in third angle on which of the following views can distance X be measured?

I End view

II Plan

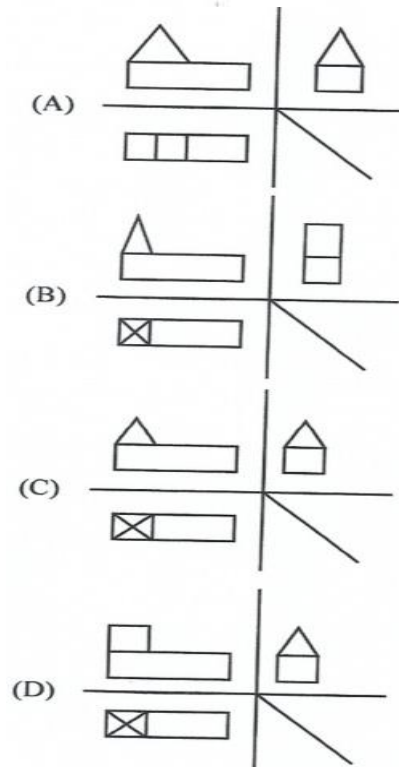
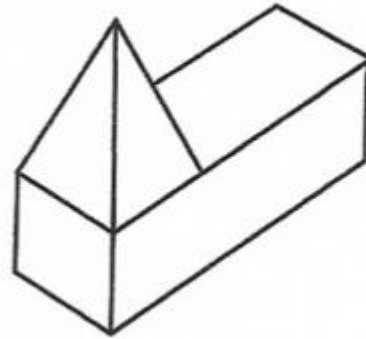
III Front

- A. I and II only
- B. I and III only
- C. II and III only
- D. I, II and III

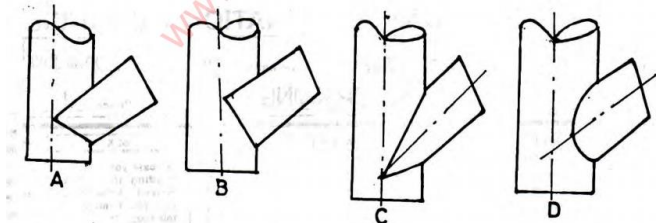
23. One of the methods below is used for constructing isometric circle?

- A. Circumscribing square
- B. Cavalier
- C. Parallel
- D. Radial method

24. In the figure below, which of the following represent correctly the first angle projection of the block?



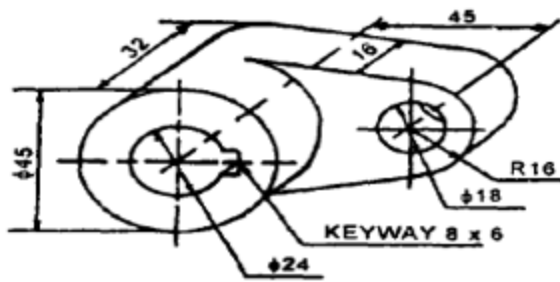
25. Which of the following is the curve of interpenetration of two unequal cylinder?



26. The purpose of surface development include the following EXCEPT.

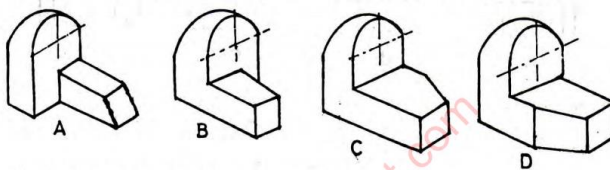
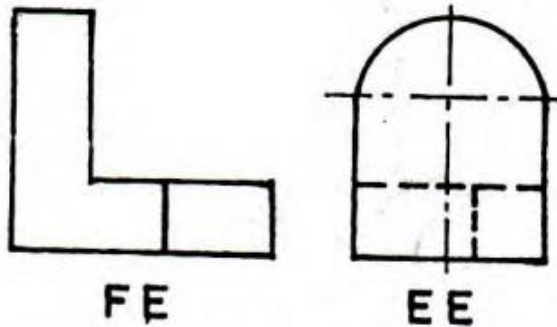
- A. design of parts
- B. cut materials
- C. avoid wastage
- D. knowing cost of materials

27. The figure below is in projection.

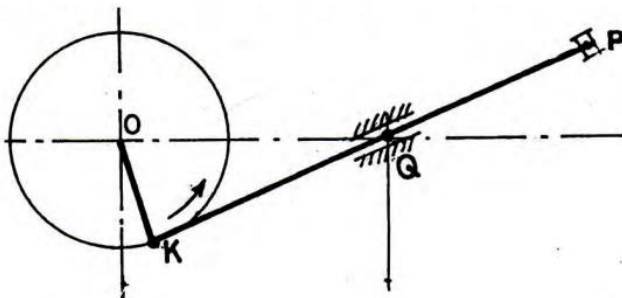


- A. isometric
- B. perspective
- C. oblique
- D. orthographic

28. Which of the following is correct pictorial drawing of the bracket shown below?



29. If the crank OK in the diagram below moves clockwise, the link KP will

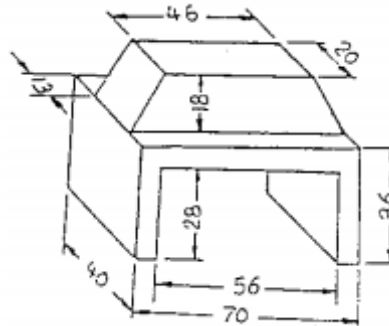


- A. rotates at Q
- B. slides towards K
- C. remains stationary
- D. slides towards P

30. Which of the following is example of frustum?

- A. Water bucket
- B. Electric bulb
- C. Lantern
- D. Fluorescent tube

31. The figure shown below is drawn in _____ projection

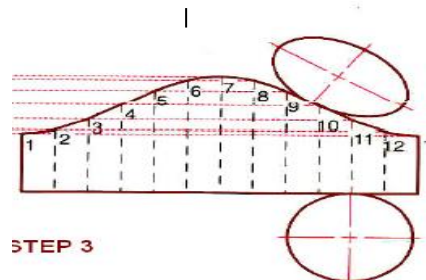


- A. isometric
- B. perspective
- C. oblique
- D. orthographic

32. One of the advantages of oblique projection over isometric projection is _____

- A. shapes are distorted
- B. shapes can be put in parallel shape to avoid been distorted
- C. appears elongated
- D. difficulty to draw

33.



The construction below is the development of _____

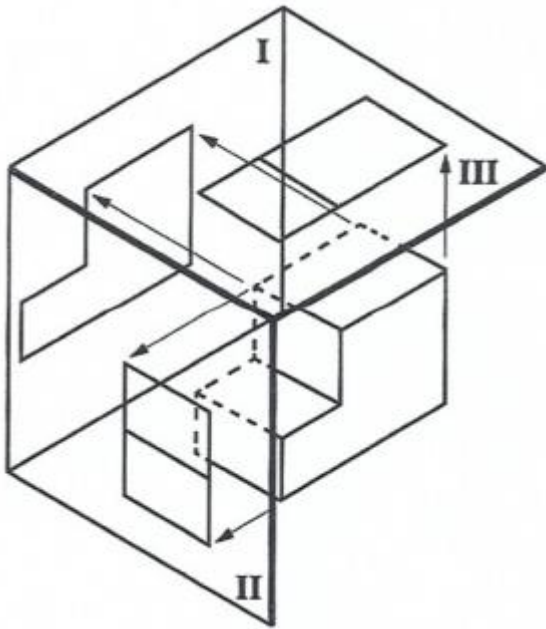
- A. cylinder covered in both ends
- B. cylinder
- C. truncated cylinder covered in both ends
- D. frustum of cone

34. The development of a closed square pyramid is

- A. four rectangle and four square

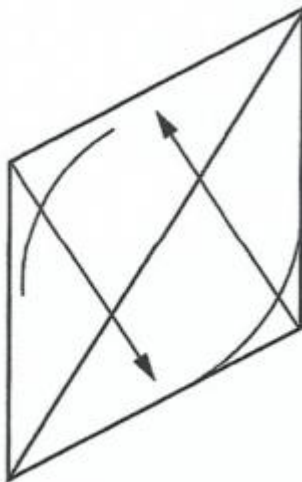
- B. 2 squares and 2 rectangles
- C. 4 squares and 2 rectangles
- D. 4 rectangles and 2 squares

35. In the figure below, on which of the following plane is the plan shown?



- A. I only
- B. II only
- C. III only
- D. I and III

36. Which of the construction is illustrated below?

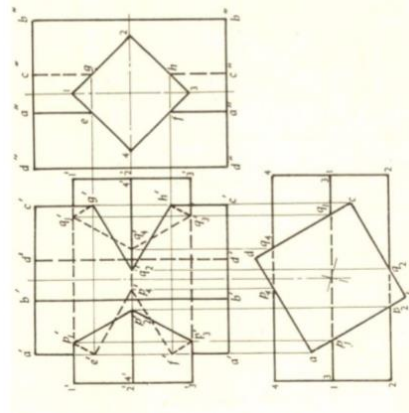


- A. Square
- B. Circle in perspective
- C. Circle in isometric
- D. Irregular curve

37. The following are uses of parabola EXCEPT.

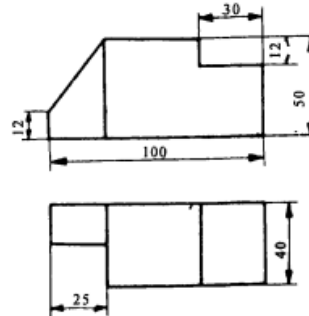
- A. water jet
- B. water fall
- C. graphic representation of boy's law
- D. wall bracket

38. The construction below is that of



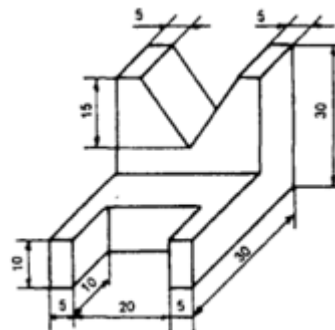
- A. development
- B. interpenetration
- C. projection
- D. link mechanism

39. The figure below is Drawing.



- A. isometric
- B. orthographic
- C. oblique
- D. perspective

40. The figure below is drawn in _____ projection



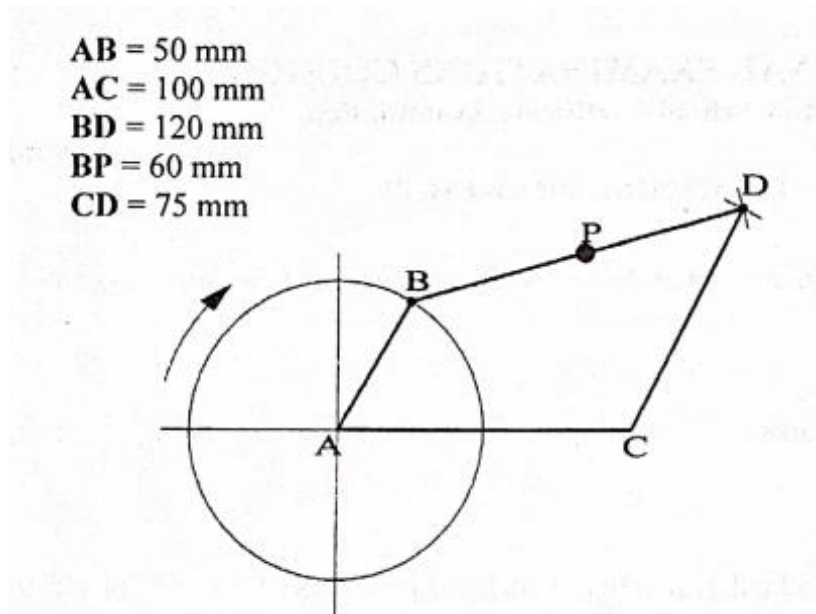
- A. isometric
- B. oblique
- C. perspective

D. dimetr

PAPER 2 -GEOMETRY (1 ½ HOURS)
(60 MARKS)

Answer three questions from this Part.

1. In figure below, cranks AB and CD are connected by a link BD. AB rotates about A while CD scillates about C. Trace the locus of point P in one complete revolution of crank AB.

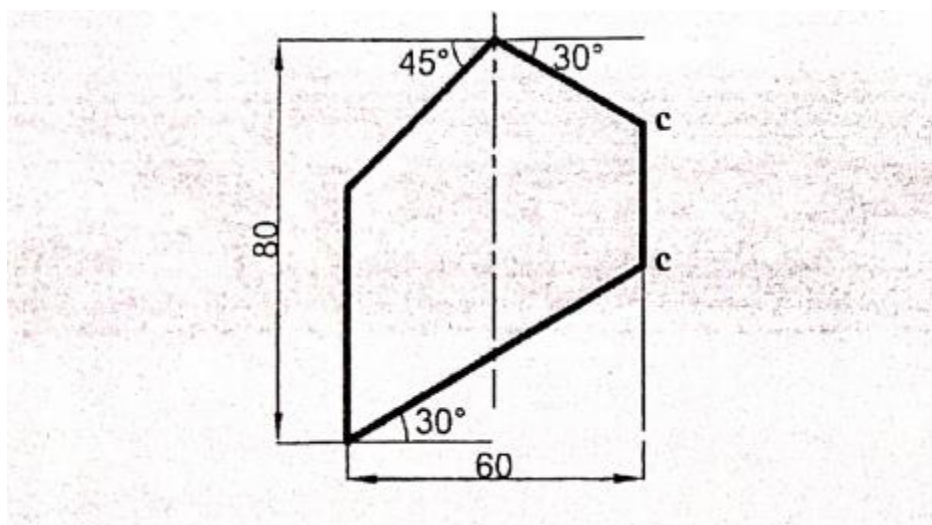


NECO, Technical drawing 2025, paper IV, Q.1

(20 marks)

2. The figure below shows the elevation of a cylinder cut by three planes.

- i. Copy the given view
- ii. The development of the cut cylinder



NECO, Technical drawing 2025, paper IV, Q.2

(20 marks)

3.

Fig. 3 shows two intersecting cylinders of unequal diameters.

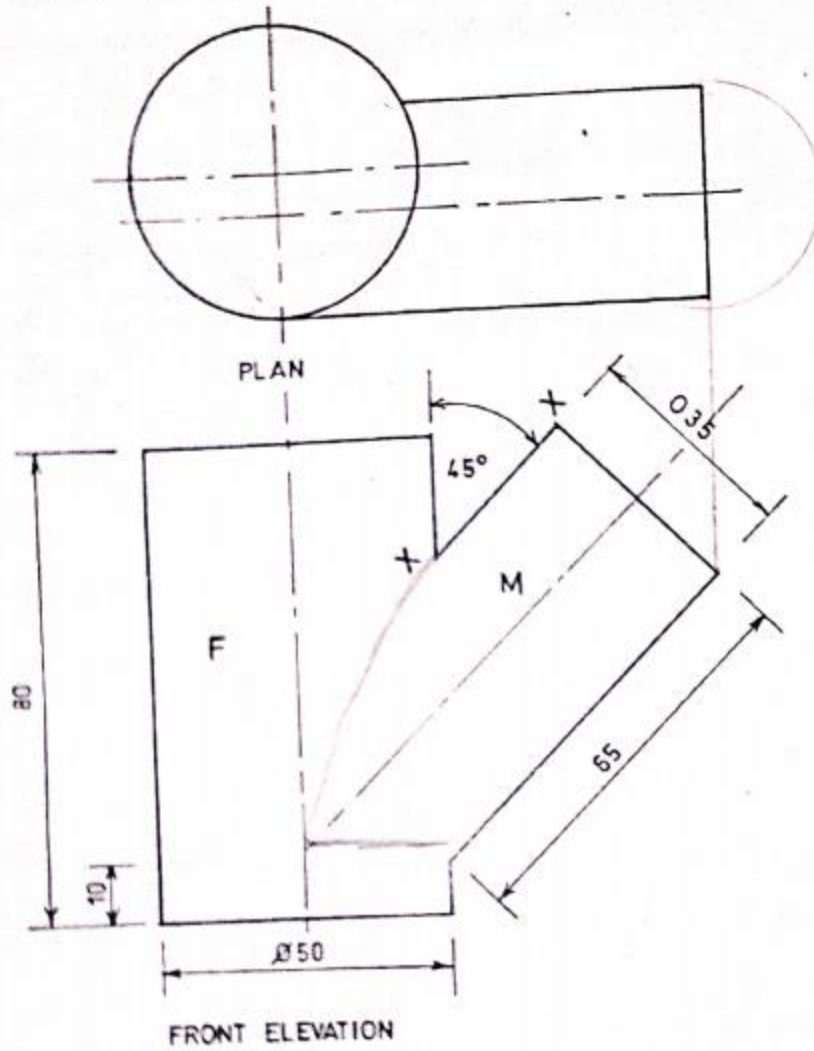


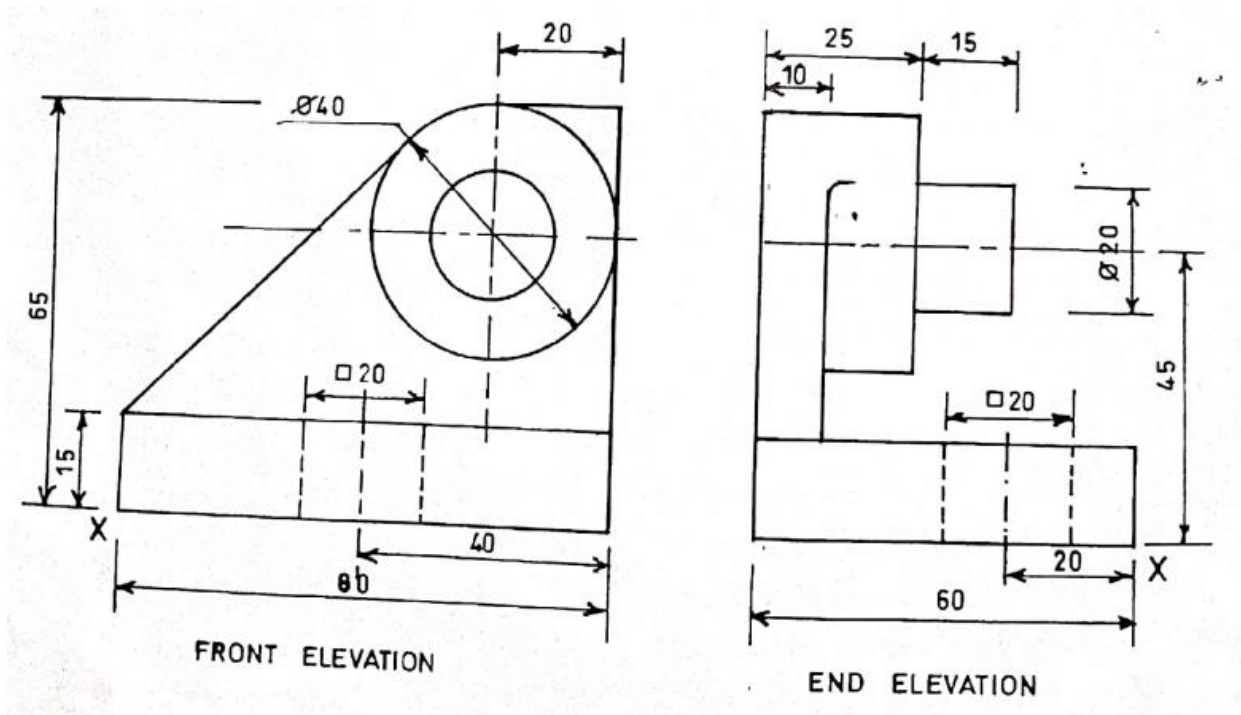
Fig. 3

Draw the:
(a) given views:

- | | |
|--|-----------|
| Draw the | |
| (a) given views | (7 marks) |
| (b) curve of intersection | (5 marks) |
| (c) development of pipe M making X-X as seam | (8 marks) |

Technical Drawing 2, WASSCE (SC), 2025, Q 3

4. Two views of a block are shown in the figure below.



Draw, full size, the isometric view of the block, making X the lowest point.

Technical Drawing 2, WASSCE (SC), 2025, Q.1

(20 marks)



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NAME				
SUBJECT	TECHNICAL DRAWING 3	CLASS	SS 2	DURATION 1 ½ HOURS

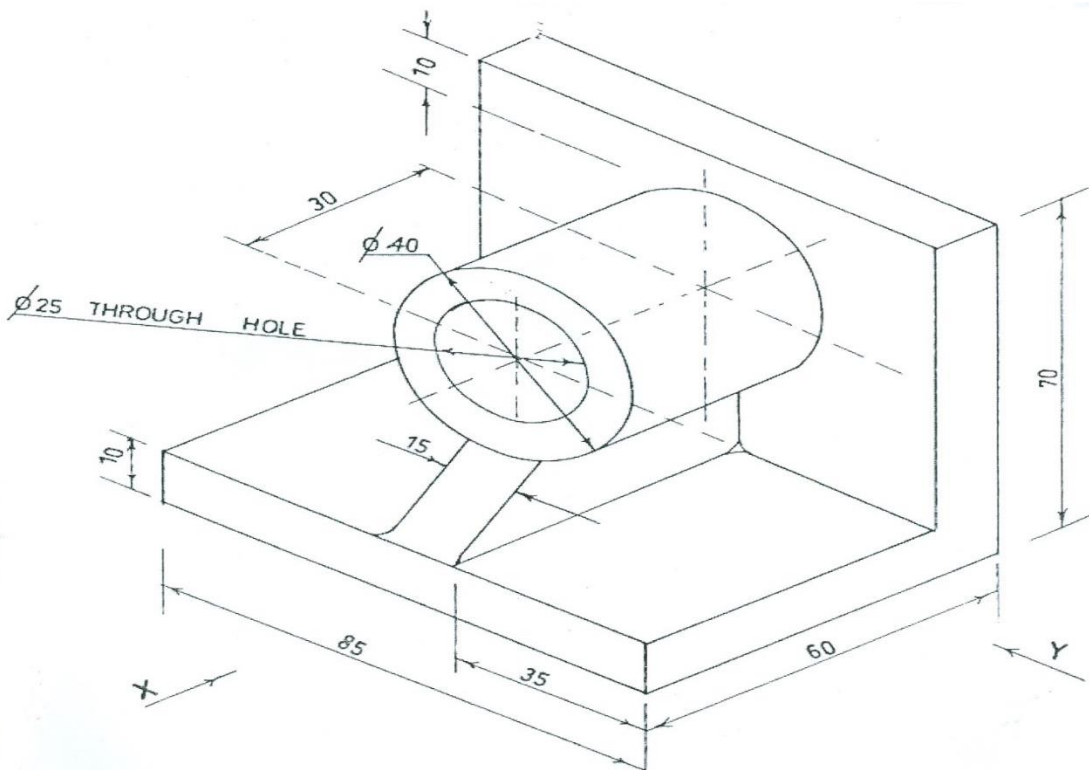
PAPER 3 -PRACTICAL (60 MARKS)

INSTRUCTIONS: Strictly geometrical methods are to be used. Lines that are parallel, perpendicular or inclined at angles such as 30° , 45° or 60° to other lines may be drawn whiteout construction lines being shown. All other construction lines **must** be shown clearly. Accuracy and good draughtsmanship are essential.

All dimensions are in millimeters **except** otherwise stated.

Answer three questions from this paper

1.



A block drawn in isometric is shown above. Draw full size in first angle projection, the following views:

(a) front elevation from arrow X;

(8 marks)

(b) plan;

(5 marks)

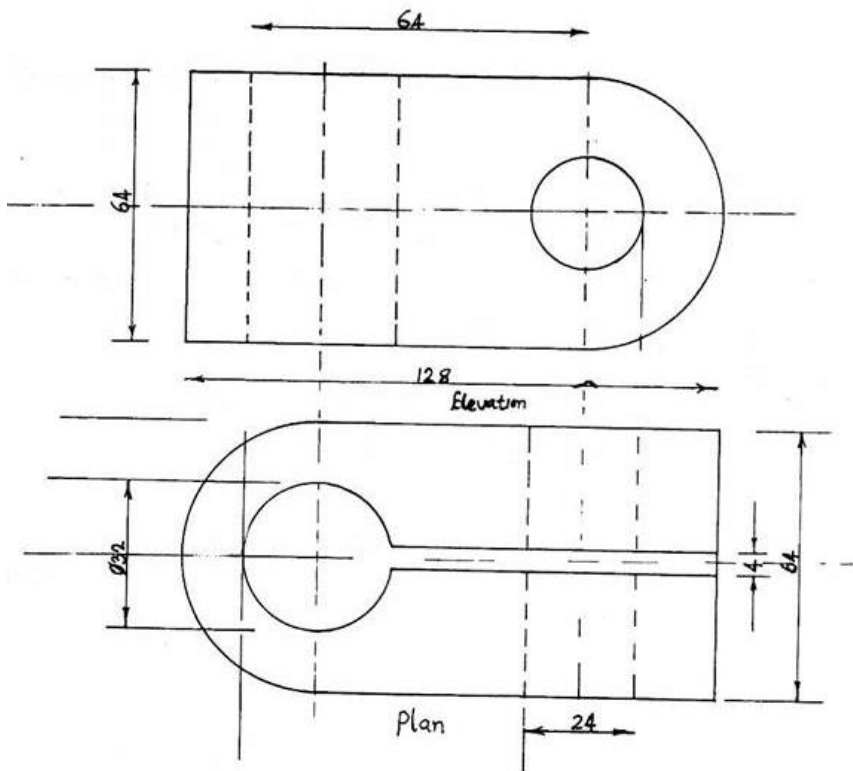
(c) side elevation from arrow Y.

(7 marks)

Technical Drawing Paper 2, Nov/Dec. 2014, Q. 2

2. (a) The views of a component are shown below.

Construct, full size, the isometric view, making face F the lowest.



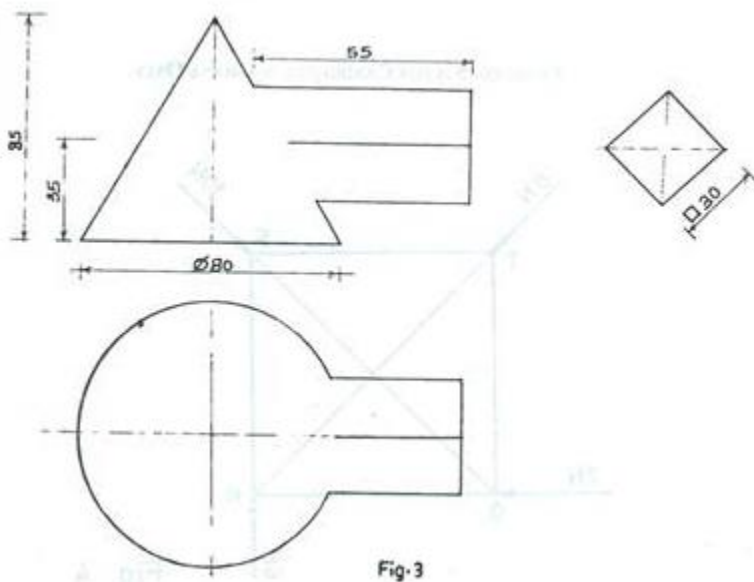
b) Construct a square which is equal in area to a rectangle whose sides are 30 and 80.

Constructing isometric view from orthographic projection

Technical Drawing Paper 1, Nov/Dec. 20123. Q.4

(20 marks)

3.

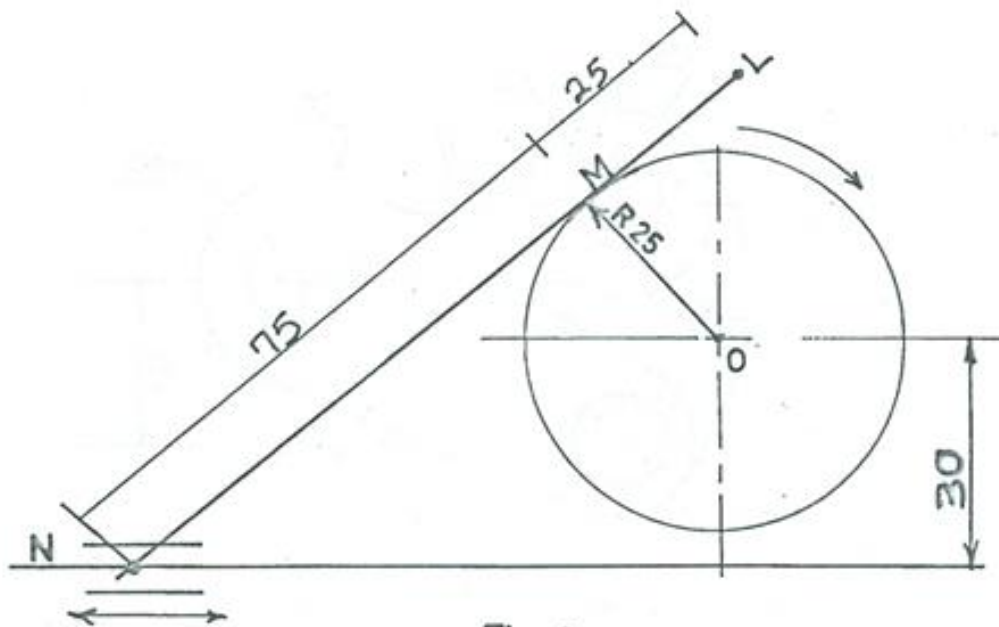


A square pipe penetrates a right cone as shown in fig. 3. Draw full size, the:

- given views: (7 marks)
- complete plan; (5 marks)
- curve of interpenetration. (9 marks)

Technical Drawing 2, WASSCE (PC 2ND), 2019, Q.4

4 Figure below shows a link mechanism. The crank OM rotates about O and N is constrained to move to and fro horizontally. Plot the locus of point L for one complete revolution.



WASSCE 2017, Q. 2

(20 marks)