CHRIST HIGH SCHOOL

Perseverance with prayer is a key to Success

CHRIST HIGH SCHOOL PLOT 5, CHS STREET, KM 32, ABUJA-KEFFI ROAD UKE, NASARAWA STATE

SECOND TERM EXAMINATION 2024/2025 ACADEMIC SESSION

SUBJECT: TECHNICAL DRAWING
CLASS: SS 3
TIME: 3 Hours 30 Minutes

NAME……

CANDIDATE'S ADMISSION NO.

INSTRUCTION

Write your name and number in the space provided on your answer booklet. Write your name on any extra sheet used.

answer all question in section 'A', one in section 'B', three in section 'C' and the question in section 'D'.

At the end of the examination, staple all your work securely together.

FOR EXAMINER'S USE	
Total Score:	+

1. ……..is a photographic print of a building plan.

A. photocopy
B. elevation
C. sectioning
D. White print
E. Blue print

2. …… shows the views of the front, the side or the back of the buildings as seen from a distance

A. sectioning
B. print preview
C. pictorial view
D. elevation
E. free hand

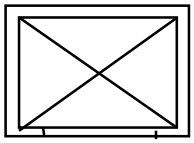
3. …….. is the view obtained when the plan of a building is assumed to be sliced through by cutting plane.

A. elevation
B. cutting
C. Pan
D. section
E. blue print

4. The symbol below in a blue print, represents ……..

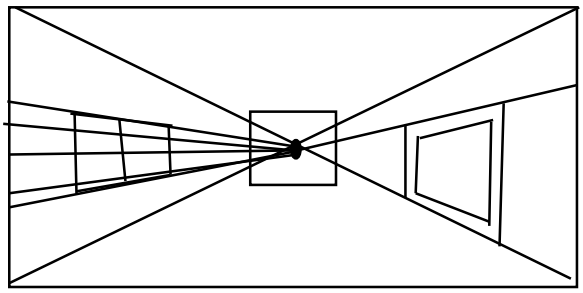
A. Ball and rectangle
B. Preservation
C. Sink floor
D. WC Toilet
E. Drinking fountain

5. The symbol below in a blue print, represents ……..



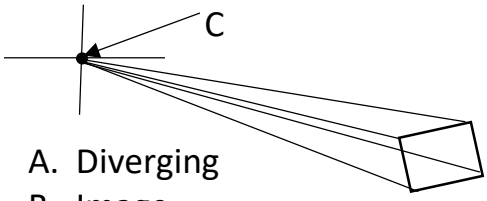
A. WC
B. HWH
C. Water heater
D. Shrinking
E. Shower tank type

6. The type of drawing shown below is



A. Auxiliary
B. Isometric
C. Orthographic
D. Oblique
E. Perspective

7. In the diagram below, what is the name of the point C



A. Diverging
B. Image
C. Object
D. Picture
E. Vanishing

8. …… are blemishes in timber that reduce the quality or utility value of timber

A. Scaling
B. wound
C. stains
D. Defects
E. Washing

9. Sketching the layout of the building on a sheet of paper is the ……. Step of making a simple plan.

A. last
B. third
C. second
D. first
E. forth

10. Which of these is not a principal view in orthographic drawing

A. Front
B. Left side

C. Plan
D. Central
E. Right side

11. All of the following are used as metalwork measuring tools **except**?
A. Steel rule
B. Micrometer screw gauge
C. Protractor
D. Vernier Calipers
E. Punch

12. All the following are types of screw drivers except
A. Flat
B. Ratchet
C. Allen
D. Round
E. Star

13. What is the name of the equipment used for brazing?
A. blow pipe
B. Box
C. Hearth
D. Chamber
E. Spelter

14. The term used to describe motion in a circular path is
A. Linear
B. Rotary
C. Rectilinear
D. Oscillatory
E. Translational

15. What type of wood joint is shown above?
A. dove tail
B. bridle
C. halving
D. tenon
E. butt

16. The movement of piston in an engine is an example of ---------- motion
A. Linear
B. Circular
C. Oscillatory
D. rotational
E. Translational

17. Soldering is a ---------- process
A. Finishing
B. Joining
C. Forging
D. Fitting
E. Machining

18. Which method would you use on a circuit board?
A. Tempering
B. Soldering
C. Brazing
D. Welding
E. Drilling

19. Straight edge instruments are usually used for free hand sketching.
A. false
B. none of the above
C. not every time
D. partially true
E. true

20. Which of these pencils is the darkest
A. 5B
B. 4B
C. 5H
D. 4H
E. H

21. Engineering …… is the method that engineers use to identify and solve problems
A. design
B. solution
C. building
D. paper
E. sketches

22. …….. involves repetition many times before entry to check for failures possibilities and improvement).
   A. iritative
   B. iteration
   C. tiration
   D. ittemation
   E. ittinative

23. ……. is the first step of engineering design process
   A. study the problem
   B. check a problem
   C. define the problem
   D. see a problem
   E. see reasons for problems

24. …….. is the last step of engineering design process.
   A. polish results
   B. develop prototype
   C. check results
   D. communicate results
   E. brainstorm and evaluate

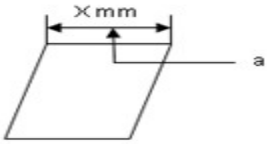
25. A point where two edges meet in a polygon is called ------
   A. Side or edge
   B. Inside or outside
   C. Up or down
   D. Body or inside
   E. Vertex or corner

26. The scale ruler has --------- independent graduation surfaces on each face
   A. 2
   B. 5
   C. 6
   D. 4
   E. 3

27. ---------- is a line in the plane of a circle which intersects the circle in exactly one point
   A. Point of rotation
   B. Point of tangency
   C. Point of collation
   D. Point of motion
   E. Point of touch

28. What do hidden lines in orthographic projections denote?
   A. Change of Plane
   B. Position of cut
   C. Holes or slots
   D. Centre of a circle or cylinder
   E. Table

29. What is the type of line used for line a?



   A. Continuous thick
   B. Medium thick short dashes
   C. Continuous thin wavy
   D. Continuous thin straight
   E. Wavy lines

30. There are -------- major types of polygon
   A. 1
   B. 4
   C. 3
   D. 5
   E. 2

31. ---------- is a six sided polygon
   A. Hexagon
   B. Heptagon
   C. Hellion
   D. Decagon
   E. Nonagon

32. In perspective projection, the point where the eye of the observer is located while viewing the object is called
   A. station point
   B. ground point
   C. horizon point
   D. center of vision
   E. staypoint

33. ---------- is a fixed point on the interior of a curve
   A. Factor

B. Focus
C. Force
D. Fence
E. Friction

34. In a cycloid, the moving circle is called ----------
A. Middle center
B. General circle
C. Half center
D. One way
E. None of the above

35. ------- is a rigid bar connecting through pin and prismatic joint.
A. Crank
B. Cylinder
C. Linkage
D. Cycloid
E. Prisms

36. ---------- is a line perpendicular to the axis of symmetry in a parabola/curve.
A. Directrix
B. Focus
C. Force
D. Dimension
E. Dualism

37. ---------- is a three-dimensional shape with flat side with the two end having the same shape and size.
A. Linkage
B. Prisms
C. Parabola
D. Cycloid
E. None of the above

38. ---------- is a set of all point
A. Line
B. Prism
C. Locus
D. Focus
E. Directrix

39. The scale of ratio 50:1 signifies …… process.
A. Enrollment
B. Full scale
C. Reduction
D. Enlargement
E. mensuration

40. Horizontal lines in technical drawing are drawn with ----------
A. ruler
B. scale ruler
C. Set square
D. Protractor
E. T-square

41. An equilateral triangle ABC has angle 'C' 60^0, what is angle 'A' and 'B'.
A. 100^0 and 20^0
B. 90^0 and 90^0
C. 75^0 and 125^0
D. 120^0 and 40^0
E. 60^0 and 60^0

42. Locus is a Latin word for ----------
A. Size and shape
B. Movement
C. Dimension
D. Place or location
E. Shape and size

43. A narrow path between two points on a surface is called ----------
A. Drawing
B. Road
C. Line
D. Indicator
E. Land

44. A scale of 1:100 mean
A. Drawing is 100 times bigger than in real life
B. Drawing is 100 times smaller than in real life
C. Drawing is 100 higher than in real life
D. Drawing is 100 times 100
E. none of the above

45. The following are examples of a plane figure except ---------

A. Parabola
B. Triangle
C. Polygon
D. Circle
E. Parallelogram

46. -------- is a type of quadrilateral with all sides equal and two opposite angles the same.
A. rhombus
B. Kite
C. Quadrilateral
D. cuboid
E. Parallelogram

47. In using scale ruler 200:1 means that the object drawn is --------- in real life
A. One times lower
B. 200 times smaller
C. 200 times greater
D. 1200
E. 200 plus 1

48. ---------- polygon has both their side and angle equal to each other
A. Round
B. Regular
C. Relevant
D. Irregular
E. Irrelevancy

49. ---------- is not a part of a screw.
A. Sharp
B. Neck
C. Thread
D. Head
E. Tip

50. ……. is a Latin word for perspective.
A. Perspicere
B. perspectry
C. pecefere
D. perspective
E. percpere

51. Types of perspective is determined by number of ---------- points
A. vanishing
B. Size and shape
C. Movement
D. Dimension
E. horizon

52. ---------- line is also known as eye level.
A. orthogonal
B. horizon
C. vanish
D. view
E. stationary

53. ……..view is an orthographic view taken in such a manner that the lines of sight are not parallel to the principal projection planes.
A. perspective
B. plan
C. auxiliary
D. profile
E. section

54. Principal projection planes are frontal, horizontal and ---------- plane
A. plan
B. top
C. front
D. profile
E. section

55. A ---------- auxiliary view is projected onto a plane that is perpendicular to one of the principal planes of projection and is inclined to the other two.
A. all points
B. secondary
C. tertiary
D. first
E. primary

56. Auxiliary views are often used to produce views that shows all of the following except.
A. True name of shape
B. True length of line
C. Point view of line
D. Edge view of plane

E. True size of plane

57. Generally, auxiliary views are used to show the true shape or true angle of features that appear --------in the regular views.

A. far
B. distorted
C. clean
D. clear
E. high

58. AIP means ……..

A. Auxiliary Inclined plot
B. Auxiliary Inclined plan
C. Auxiliary Inclined Plane
D. Auxiliary Inclined Place
E. Auxiliary inline plane

59. A cut or sliced top of a solid shape is referred to as a ----------

A. section
B. joint
C. prism
D. frustum
E. pyramid

60. TL means ---------- in auxiliary view

A. Translator line
B. Transition line
C. Types of line
D. True length
E. Top level

SECTION 'B'ESSAY PART ONE 15*minutes*

Instruction:

Answer anyone (1) of the questions below.

1. Define the following terms.
    a. tangent
    b. horizon line
    c. vanishing point
    d. stationary point:
    e. parallel line.
    f. primary auxiliary view
    g. secondary auxiliary view:
    h. sector
    i. an arc
    j. segment
2. a. List any three types of fasteners
    b. Explain the following terms
    i. locus
    ii. perspective drawing
    iii. auxiliary view

SECTION 'C' ESSAY PART TWO1HOUR15*minutes*

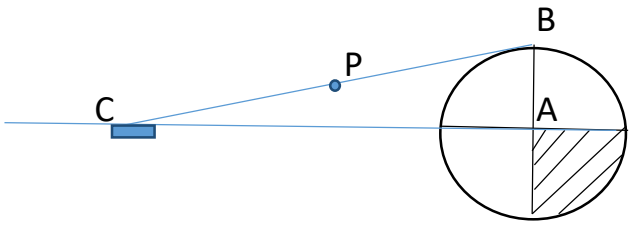
Instruction:

I. **Answer any three (3) questions including question one(1) from this section**
II. **Use all the necessary drawing instrument and materials, free hand drawing will attract a minus.**
III. **All dimensions are in mm and must be shown**
IV. **Credit will be awarded for good Draughtmanship.**
V. **Show all the construction lines and avoid painting, darkening, or double lines.**
VI. **Draw on the sheet provided, borderline and title block with the following information:**

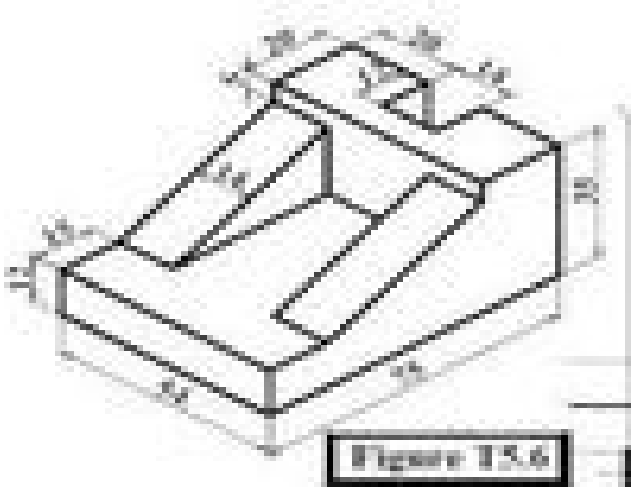
1. **Your name**
2. **Class**
3. **Subject**
4. **Date**

1. *A hexagonal pyramid of base 30mm sides and axis 60mm long, has an edge of its base on the ground. Its axis is at 45^0 to the ground and parallel to the VP. draw is auxiliary projection*

2. In a slider-crank mechanism, the connecting rod 'BC' is 100mm long and the crank 'AB' is 20mm long. The slider 'C' is sliding on a straight path passing through the point 'A'. Draw the locus of the midpoint 'P' of the connecting rod 'BC' for one revolution of the crank.

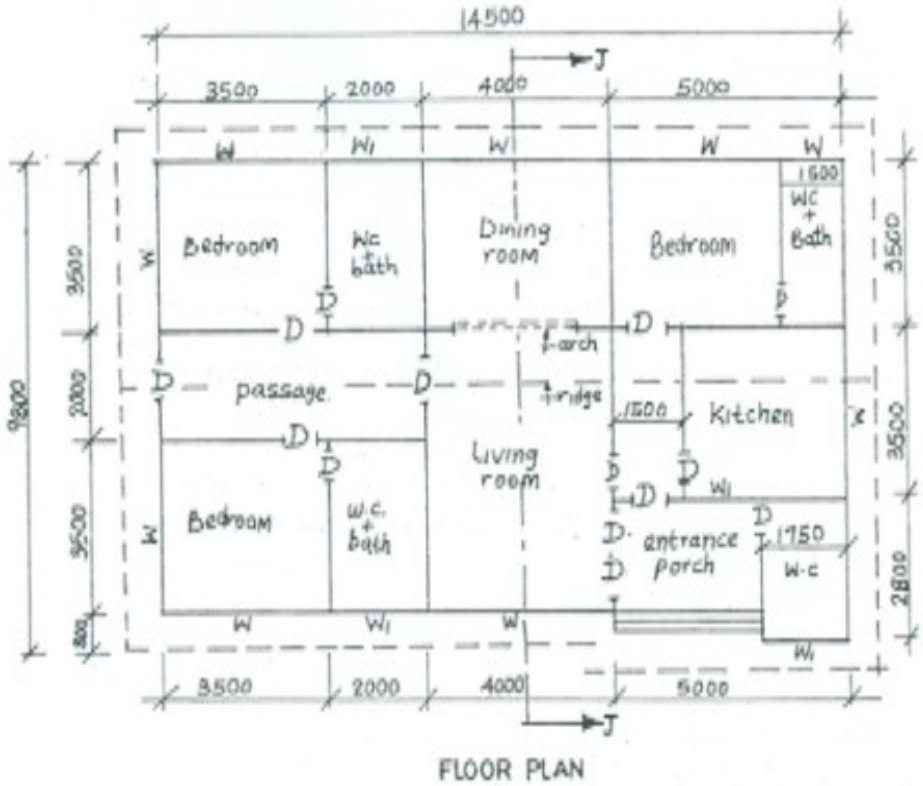


3. Construct an internal tangent to two equal circles of radius 5mm
4. Draw the orthographic view of the diagram below in third angle projection.



SECTION 'D' PRACTICAL BUILDING CONSTRUCTION 1HOUR *30minutes*

The figure below shows the sketch plan of three bed room bungalow, study the given drawing and answer the question that follows.



1. **Construct the plan, front and side elevations specifications.**