NESA NATIONAL EXAMINATION AND SCHOOL INSPECTION AUTHORITY

BDC – Construction Technical Drawing

T2-021

Thursday, 16 July, 2026.
08:30 AM – 11:30 AM

Names:.....

Index number:.....

TSS NATIONAL EXAMINATIONS, LEVEL 5, 2025-2026

QUESTIONS and ANSWERS BOOKLET

TRADE : **Building Construction (BDC)**

SUBJECT: **Construction Technical Drawing**

DURATION: **3 Hours**

Read carefully the instructions on page 3

TOTAL MARKS...../100

FOR MARKER'S USE ONLY

QUESTIONS	1	2	3	4	5	6	7	8	9	10	Total
Marks											

QUESTIONS	11	12	13	14	15	16	17	18	19	20	Total
Marks											

QUESTIONS	21	22	23	24	25	26	27	28	29	30	Total
Marks											

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SECTION A: Attempt all questions **(55 marks)**

01. Choose and Circle the letter corresponding the right answer for each of the following statements related to the identification of technical drawing materials and instruments: **(4 Marks)**

(1) The instrument used to draw circles and arcs in technical drawing is:

A. Set square
B. Compass
C. Scale ruler
D. French curve

(2) A transparent drawing paper used for copying drawings is a:

A. Tracing paper
B. Bond paper
C. Newsprint paper
D. Watercolor paper

02. Read the following statements about the use of technical drawing materials and instruments and answer by using **True(T)** or **False(F)**. **(4 Marks)**

(1) A pencil is used to make light and dark lines, while an eraser is used to remove unwanted pencil marks.....

(2) Tracing paper is used for freehand sketching, while charcoal is used for measuring length.....

03. Choose and Circle the letter corresponding the right answer for each of the following statements about the preparation of building construction drawing materials, and instruments: **(5 Marks)**

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(1) The most important factor while selecting drawing materials for technical drawing is:

A. Color and cost of the material
B. Availability and Cost only of the material
C. Accuracy and quality of the material
D. Size of the classroom

(2) Before starting a construction drawing, instruments should be:

A. Properly checked and arranged for use
B. Arranged only without checking to save time
C. Shared randomly among the students
D. Inspected without arranging to ease the work

04. Answer by **True(T)** or **False(F)** to the following statements related to the interpretation of construction drawings. **(4 Marks)**

(1) Hidden lines are used to show visible edges of an object.....

(2) A section is drawn to show internal details that cannot be seen in a plan.....

05. Choose and Circle the letter corresponding the correct answer for each of the following statements related to the construction site data collection and reporting: **(4 Marks)**

(1) The purpose of data collection in construction project is to:

A. Record project activities without analyzing them
B. Speed up project activities for payment purpose
C. Prepare the report after project completion
D. Obtain accurate information for decision-making

(2) One of the data recorded on construction site is:

A. Company profit

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B. Weather conditions

C. Market prices

D. Design software

06. Fill in the blank spaces by using an appropriate AutoCAD word from the given list of words: **(5 Marks)**

List of words: **snap, osnap, ortho, cut**

A. When a drafter wants to restrict cursor movement to horizontal and vertical directions while drawing walls, he/she should remember to activate ..... mode.

B. The ..... tool allows precise selection of abject points such as endpoints and midpoints

C. The ..... command is used to remove unwanted parts of an object.

D. When drawing straight lines at 90°, the ..... mode should be activated.

E. The ..... mode helps align objects at fixed spacing intervals on the drawing area.

07. Read the statement below about the preparation of ArchiCAD software environment and circle the correct answer: **(3 Marks)**
Which customization feature in ArchiCAD allows users to reuse predefined project settings?

A. Quantity take-off

B. Library management

C. Project templates configuration

D. Work environment setup

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08. Choose and circle the letter corresponding to the correct answer for the following statements related to drawing lines used in technical drawing. **(5 Marks)**

(1) An extension line is defined as a:

A. Solid thick line that represent visible edges or contours
B. Line alternating long and short dashes
C. Solid thin line that indicate cut surfaces
D. Solid thin line showing line to which dimension applies

(2) A break line is defined as a:

A. Line which indicates that only portion of object is drawn
B. Line alternating long and short dashes of a technical drawing
C. Solid thin line that indicates cut surfaces on a drawing
D. Solid thin line showing line to which dimension applies

09. Match the AutoCAD terminologies in **column A** with their corresponding functions in **column B** and write the correct letter in the column of answers. **(4 Marks)**

Answers	Terminology	Function
1 = ...	1. File tabs	**A.** Move the view of the drawing without changing the actual objects
2 = ...	2. Layout tabs	**B.** Include all visual and interactive elements such as ribbons, toolbars, menus, command line, drawing area, status bar, palettes, and viewports
3 = ...	3. Pan	**C.** Provide access to all open documents in a minimal amount of space
4 = ...	4. User interface	**D.** Provide access to Model Space and each Layout in a given document

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10. Read the following statements about performing hand architecture drawing and fill in the blank spaces provided using the right terms from the given list of words **(4 Marks)**

List of terms: **floor plan, foundation plan, elevation view, longitudinal cross section**

(1) The ..... illustrates the design and depth of the base of a building that supports the structure.

(2) The..... shows the exterior view of a building from one side, including height, doors, and windows.

11. Rearrange the following steps from the first to the fifth in the correct order as followed in drawing a title block on drawing paper. **(3 Marks)**

A. Write the required information such as drawing title, scale, name, date, and drawing number.

B. Draw the outer border of the drawing paper according to standard margins.

C. Measure and mark the position of the title block at the bottom-right corner of the sheet.

D. Divide the title block into required sections using thin lines.

E. Check alignment, neatness, and accuracy of the title block.

1	2	3	4	5
.....	.....	.....	.....	.....

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12. What is the function of AutoText in a Master Layout of ArchiCAD software? Circle the right answer. **(3 Marks)**

A. It fixes text so that it cannot be edited later

B. It converts text into very good and smart graphic symbols

C. It inserts dynamic project information automatically

D. It adjusts text scale during printing of the drawing

13. A man wants to fabricate a scale model of a house at a scale of 1:100. The actual house size is 10 m long and 8 m wide. To prepare the model base correctly, what should be the size of the base? Choose and circle the correct answer. **(4 Marks)**

A. 10 cm × 8 cm

B. 100 cm × 80 cm

C. 1 cm × 0.8 cm

D. 1000 cm × 800 cm

14. Put the following actions in the correct order when preparing to use the Mesh Tool in ArchiCAD software for site modeling. **(3 Marks)**

A. Confirm the Mesh Tool is active

B. Open the Toolbox panel

C. Select the Mesh Tool icon

D. Start ArchiCAD and open a project

1	2	3	4
.....	.....	.....	.....

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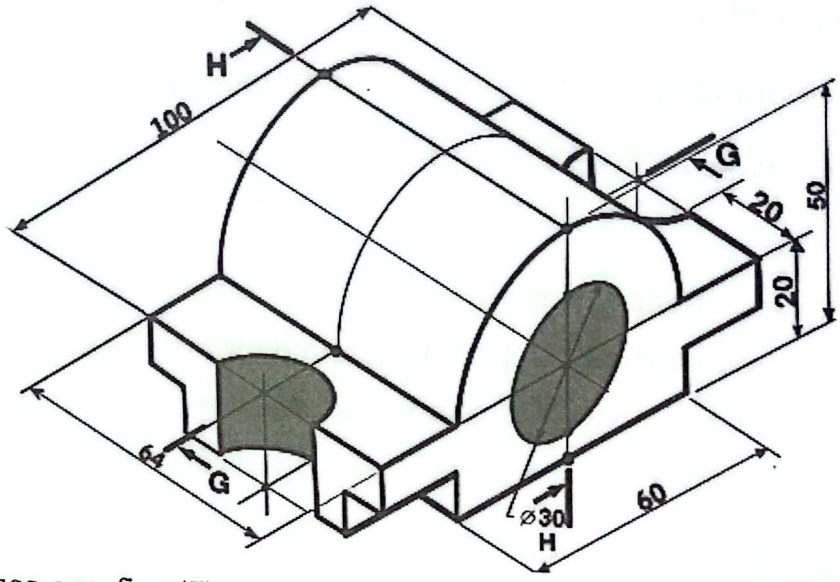
Section B: Attempt any three (3) questions **(30 marks)**

15. Redraw the given object to a scale of 1:10, maintaining correct proportions and dimensions. Note: Units are in centimeter. **(10 Marks)**



16. Discuss any five (5) ways in which the organization of objects into layers can help to improve the overall management and editing of a drawing in AutoCAD? **(10 Marks)**

17. An architectural firm is developing visual presentations for a new office building using ArchiCAD. For the client presentation, the design team requires two distinct 3D views. One view illustrates a long interior corridor to clearly show the alignment and depth of the space. The other view presents the building exterior from a corner angle, enabling the client to see two façades simultaneously. **(10 Marks)**

You are asked to:

A. Compare One-Point Perspective and Two-Point Perspective in ArchiCAD by giving any three (3) characteristics for each.
B. Explain any appropriate use for each type of perspective in architectural visualization.

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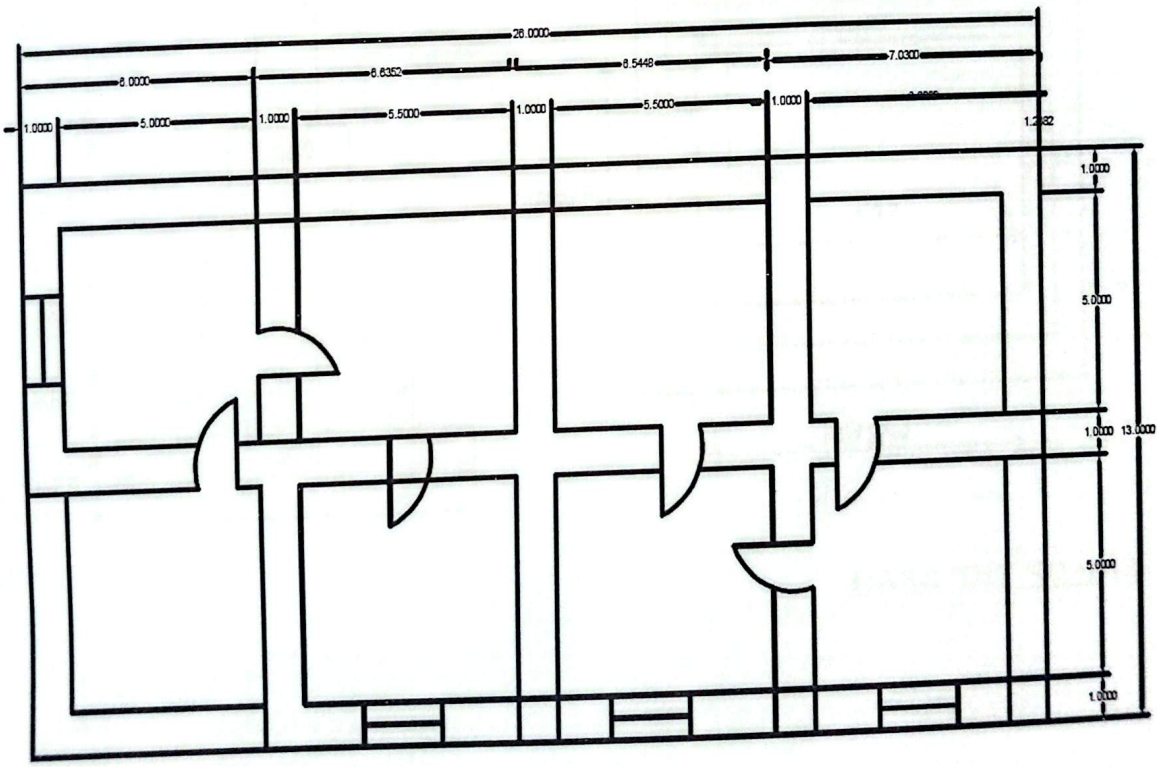
18. Using a table, make a comparison between two-dimension (2D) drawings and three-dimension (3D) drawings used in construction drawing by stating any five (5) points or characteristics for each.

19. Observe the floor plan below created by using AutoCAD, and answer the following questions: **(10 Marks)**

A. Identify and explain any five (5) potential errors or mistakes that might exist in that floor plan.

B. Propose any five (5) corrective solutions to the identified errors or mistakes.

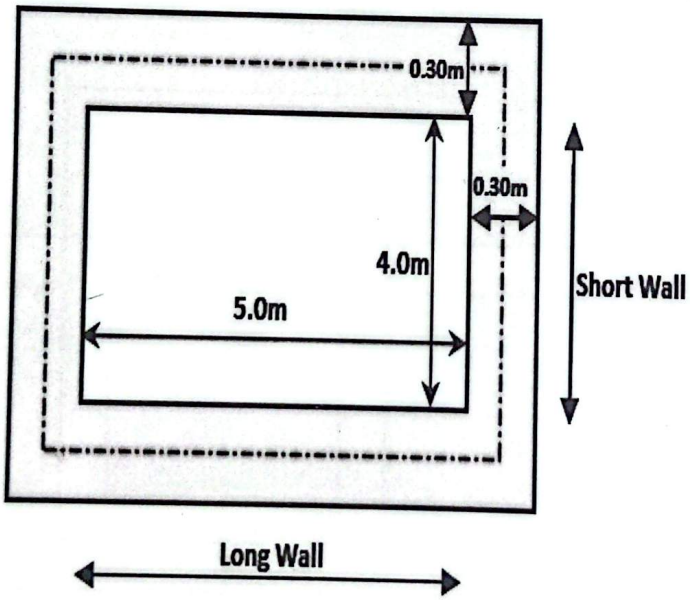


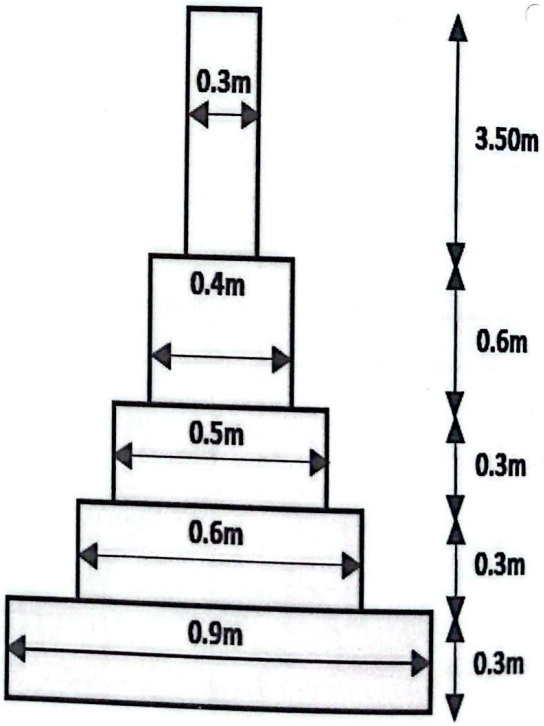
Section C: Attempt only one (1) question **(15 marks)**

20. Using a scale of 1:50, design a floor plan of a 2.5m x 1.8m bathroom equipped with common bathroom symbols. **(15 Marks)**

21. The plan below presents the details of a superstructure wall of single room building of 5mx4m, and sections represent the cross-sections of the walls with foundation. Estimate by using centerline method the quantities of: **(15 Marks)**

A. Earthwork in excavation in foundation
B. Concrete in foundation
C. Brickwork in foundation and plinth
D. Brickwork in superstructure.





END OF THE EXAM

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