

**LIMPOPO**PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICADEPARTMENT OF
EDUCATION

CAPRICORN NORTH DISTRICT

**TECHNOLOGY
GRADE 7****MAY/JUNE 2024****CONTROLLED TEST****MARKS: 50****DURATION: 1,5 HRS****LEARNER'S SURNAME & NAME:**

SECTION A	SECTION B	SECTION C
25	15	10

INSTRUCTIONS:

1. Answer all the questions
2. Write neatly and legibly
3. Write your answers in the spaces provided and do not change the numbering
4. The paper consists of **SEVEN** pages including the cover page

SECTION A [25]**QUESTION 1**

Each of these questions has one correct answer, choose the correct answer from the options provided and **circle** it.

1.1. Oblique drawing is a (1)

- A. 2D shape drawing
- B. 1D shape drawing
- C. 2D and 1D shape drawings
- D. 3D shape drawing

1.2. The relationship between the size of an object in a drawing and its actual size (1)

- A. Dimensions
- B. Hidden lines
- C. Scale
- D. Conventions

1.3. Levers give (1)

- A. Gear ratio
- B. More power
- C. No advantage at all
- D. Mechanical Advantage sometimes

1.4. What is an outline? (1)

- A. It is thick, dark, bold line.
- B. It is a dotted line.
- C. It is a faint line used when you start drawing.
- D. It is a normal line

1.5. A type of force that stretches a member is... (1)

- A. Lever system.
- B. Tension force.
- C. Bending force.
- D. Mechanical force.

1.6.is a pivot point of a lever (1)

- A. Fulcrum
- B. Load
- C. Effort
- D. Mechanism

1.7. A type of force that squashes a member (1)

- A. Tension force
- B. Compression force
- C. Shearing force
- D. Torsion force

1.8. Broader base

- A. Makes the structure to fall very easy on the ground
- B. Is called triangulation
- C. Makes the structure to be more hard
- D. Lowers the centre of gravity and keeps the structure stable enough not to fall

1.9. Which of the following steps indicate the correct order of the design process? (1)

- A. Investigate, make, design, evaluate, and communicate.
- B. Communicate, design, make, evaluate, and investigate.
- C. Design Investigate, make, evaluate, and communicate
- D. Investigate, design, make, evaluate, and communicate.

1.10. Which is an example of a first-class lever? (1)

- A. Tweezers
- B. Office punch
- C. Office stapler
- D. See-saw

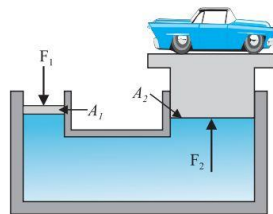
[10]

QUESTION 2

2.1 Match the statement in Column A with its description in Column C. Write only the letter that corresponds with the correct answer in Column B. (5)

Column A	Column B	Column C
2.1.1. Free-hand sketches		A. An artistic depiction of something using colour, texture and shading
2.1.2. Working drawings		B. A fixed relationship between measurements of drawings or models and the real object
2.1.3. Rendering		C. They show something that is hidden from the view.
2.1.4. Scale		D. They should show all the needed to make the product or system
2.1.5 Dotted lines		E. They do not need drawing equipment, other than a pencil

2.2 Use the figure below to respond to the questions that follows.






a) Give two examples of tasks that hydraulic maybe used for. (2)

i. _____

ii. _____

b) What is Pneumatics? (2)

2.3. Provide the purpose, type and the classification for each of the structures indicated below in i.- vi. Write the answers on the spaces provided. (6)

	BRIDGE	TORTOISE SHELL	Human Skeleton
			
Purpose	i.	Contain/ protect	ii.
Type (Man-made/ Natural structure)	iii.	iv.	Natural structure
Classification (Shell/ Solid/ Frame)	v.	Shell	vi.

[15]

SECTION B [15]**QUESTION 3**

Read the scenario and answer questions below:

Scenario:

There are cell-phone towers all over South Africa. Some of them are so colourful that you can see them from a distance. The network is good and calls are being made from one area to the other. Parents use the towers in their daily calls and messages. Learner use the network to access internet connections. But we still have deep rural areas without the network. Grade 7 learners must design and make a cell-phone tower that must be strong, rigid and stable. The tower needs to be tall so that a number calls and messages can be sent

3.1. What **type** of a structure is a cell-phone tower? (1)

3.2 Who will **use** the cell-phone tower? (2)

3.3 Write a **design brief** for the scenario. (3)

3.4. Write **three** design specifications for the scenario. (3)

3.5 Write **two** frame structures that are around your area. (2)

3.6 Give **three** types of lines that must be used when drawing a 2-D or 3-D drawings. (3)

3.7 Give **one** example of a solid structure. (1)

SECTION C [10]**QUESTION 4**

4.1 What is **visual pollution**? (2)

4.2 How can you make a cell-phone tower not to create **visual pollution**? (2)

4.3 Give **three** advantages of using cell phone. (3)

4.4 Give **three** disadvantages of using cell phone. (3)

[10]

THE END