

Name : _____

Date : _____

Subject : Technology

Grade : 7 A B

Form of Assessment: June Controlled Test

Duration : 1hour 30min

Term : 2

Marks : 60

District : D14 / JC

Moderator : Mr X.P. Ngwenya

Examiner : Ms N. Mkhwanazi

Specific Aim: *knowing of the subject content. Doing technological work or practical work and investigations and to design and make practical solutions to everyday problems.*

INSTRUCTIONS

1. Carefully read the instructions and answer **ALL questions**.
2. This question paper consists of **THREE SECTIONS and FOUR QUESTIONS**.
4. When answering questions, **APPLY YOUR KNOWLEDGE, SKILLS and INSIGHT**.
5. Answer all Questions in the **SPACES PROVIDED**.
6. **NO TALKING** allowed, individual writes his/her own work.
8. Write **NEATLY and LEGIBLY**.
9. An **HB pencil** and a **RULER** shall be used for all **CONSTRUCTIONS/DRAWINGS** in this paper.

ALLCATION OF MARKS		
SECTION : A	MULTIPLE CHOICE QUESTIONS	_____ / 30
	DESIGN AND GRAPHIC COMMUNICATION	
SECTION : B	STRUCTURES	_____ / 18
	QUESTION 3	
SECTION : C	MECHANICAL SYSTEM AND CONTROL	_____ / 12
	QUESTION 4	
TOTAL LEARNER MARK : _____ /60		

SECTION A**[30 MARKS]****QUESTION 1****(10 MARKS)**

Encircle only the letter that corresponds with each of the correct statement below.

1.1 Vanishing point is a

- A. Point that vanishes during rainy days
 - B. Point where all people of the world meet
 - C. Point that represents distance to be travelled
 - D. Point that represents distance so far away that one can no longer see how far or tall something is
- [1]

1.2. Oblique drawing is a

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

1.3. The relationship between the size of an object in a drawing and its actual size

- A. Dimensions
 - B. Hidden lines
 - C. Scale
 - D. Conventions
- [1]

1.4. Levers give

- A. Gear ratio
 - B. More power
 - C. No advantage at all
 - D. Mechanical Advantage sometimes
- [1]

1.5. Which one of the following is not a function of a structure

- A. To enclose and protect
 - B. Span a gap
 - C. Support a load
 - D. To move the load
- [1]

1.6.is a pivot point of a lever

- A. Fulcrum
 - B. Load
 - C. Effort
 - D. Mechanism
- [1]

1.7. Landline phones

- A. Have internet
 - B. Cannot be used in a bad weather
 - C. cannot be used away from home
 - D. can send text messages
- [1]

1.8. A type of force that squashes a member

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

[1]

1.9. 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]

1.10. Almost any technology project starts with the gathering of information. This part of the design process is called

- A. Investigation
- B. Design
- C. Making
- D. Evaluation

Question	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10
Answer										

QUESTION 2

GRAPHICS AND DESIGN COMMUNICATIONS

[20 MARKS]

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

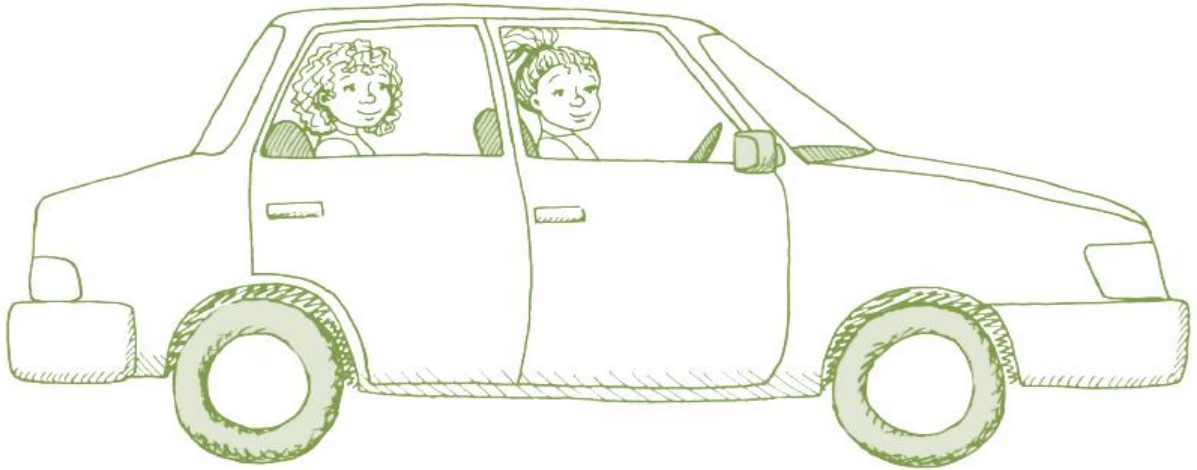
[5]

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 information needed to make the product or system	
2.1.5. Construction lines	E. They do not need drawing equipment, other than a pencil	
	F. In 2D and 3D drawings, they need to be thin and feint.	

2.2. Use dashed lines to show the bodies of the two people in the car below. [2]

2.3. Measure the **length** and the **height** of the car and include dimensions on the drawing.

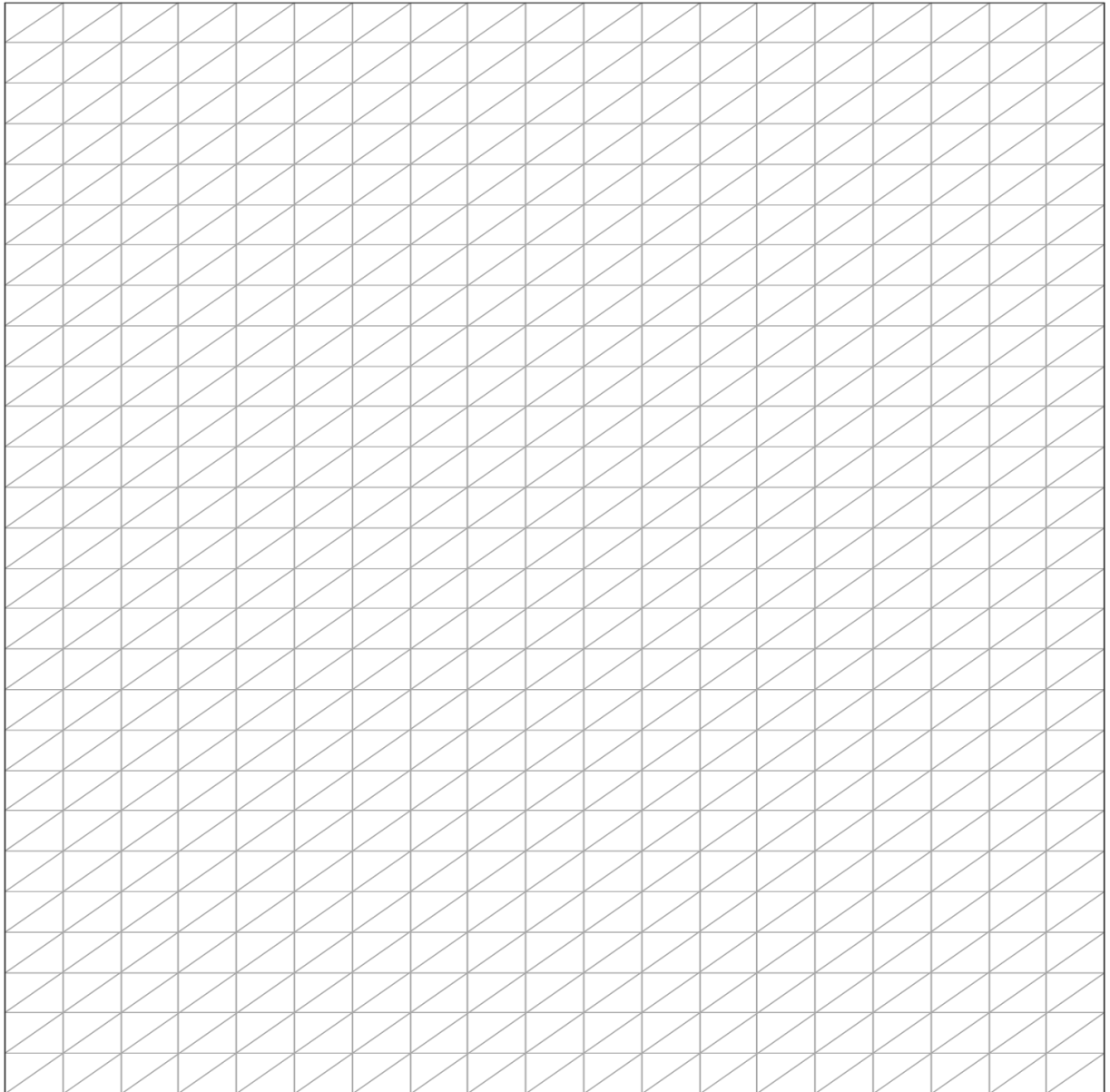
[4]



2.4. What are these dashed lines called? [1]

2.5. What is the use of these lines? [1]

- 2.6. Draw a box with the following dimensions:
Length = 60mm
Width =80mm
Height =100mm ;
 in oblique view using the grid provided below. Use a **scale of 1 : 2**.



Heading	Dimensioning	Use of scale	Neatness	Accuracy	TOTAL
1	2	2	1	1	7

SECTION B**18 Marks****STRUCTURES****QUESTION 3****[18 MARKS]**

3.1. Define a structure?

[2]

3.2. Give 2 classes of structures?

[2]

3.3. State functions/purpose of the following structures.

[3]

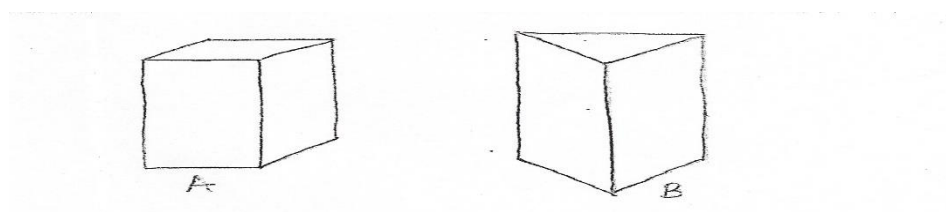
1. Bridge. :
2. Egg shell :
3. Chair :

3.4. Differentiate between a cell phone and a landline telephone by giving 3 differences for each. Tabulate your answer.

[6]

No	Cell phone	Landline Telephone
3.4.1.		
3.4.2.		
3.4.3.		

3.5. Look at the two pillars below.



3.5.1 Which one of these can carry more load before it collapses?

[1]

--

3.5.2 Give one reason for your answer.

[1]

--

3.6. Mention three forces that act on structures.

[3]

3.6.1.	3.6.2.	3.6.3.
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SECTION C

[12 MARKS]

MECHANICAL SYSTEMS AND CONTROL

QUESTION 4

Differentiate between:

4.1. Levers and Linkages.

[4]

4.2. Hydraulic Systems and Pneumatic Systems.

[4]

4.3 Look at the pictures below and briefly Identify where the Effort, Fulcrum and the Load are using explanation and name the class of each lever as well.



4.3.1



4.3.2

No	Diagrammatic Presentation	Class of Lever
4.3.1	[1]	[1]
4.3.2	[1]	[1]

..... **TOTAL MARKS : 60**