



Province of the
EASTERN CAPE
EDUCATION

SENIOR PHASE

GRADE 7

NOVEMBER 2023

TECHNOLOGY

MARKS: 60

75 MINUTES

**THE PAPER CONSISTS OF 8 PAGES
including cover page**

NAME & SURNAME: _____

INSTRUCTION AND INFORMATION

1. Read all the instructions of all the questions.
2. Write neatly and legibly
3. Read through the questions carefully and make sure that you allocate enough time for each question.
4. Answer all the questions
5. This paper consists of 3 sections and 6 Questions

ALLOCATION OF MARKS

SECTIONS	NUMBER OF QUESTION	MARKS	MARKS OBTAINED
SECTION A	Question 1 Question 2 Question 3 Question 4	30	
SECTION B	Question 5	18	
SECTION C	Question 6	12	
TOTAL MARKS		60	

SECTION A**TECHNICAL DESIGN PROCESS SKILLS****QUESTION 1:****MULTIPLE CHOICE QUESTIONS**

Choose the **correct** answer from the given statement below by **circling** e.g.: 1.1.1

A

1.1 In a two-dimensional (2D) drawing..... (1)

- A. The length, width and depth of an object are shown.
- B. The dimensions are indicated in millimetres (mm).
- C. Two faces can be shown up.

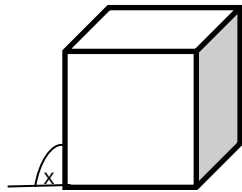
1.2 Sizing up (make a drawing bigger) or sizing down (make a drawing smaller) ... (1)

- A. Conventions
- B. Scale drawing
- C. Vanishing point

1.3 An oblique drawing is a (1)

- A. 2D shape drawing
- B. 1D shape drawing
- C. 3D Shape drawing

1.4 The size of an angle X in the oblique diagram should always be..... (1)



- A. 45°
- B. 30°
- C. 90°

1.5 A dark, continuous lines that are used to indicate the outline of an object is.....

- A. Construction line
- B. Outline
- C. Hidden detail lines

(1)

QUESTION 2:**MATCHING TYPE QUESTIONS**

Match the term in column A with the correct answer in column B, Write only the letter in given column for answer

	<u>COLUMN A</u>	<u>ANSWER</u>		<u>COLUMN B</u>
1	Design brief		A	A list of the requirements that will solve a problem
2	Evaluation		B	It's an information you collect
3	Constraints		C	It is the use of knowledge, skills, values and resources.
4	Investigation		D	A set of questions about design process and product
5	Specifications		E	A short statement that describes a problem
			F	Things that limit your choices

[5]**QUESTION 3**

Read the scenario below and answer the following questions

You are a designer. Mr. Hopgood needs a storing device for the CD's and DVD's he uses in the computer room. The disks need to be stored safely and protected from getting scratched and damaged. The box must be easily reached but Mr. Hopgood has no space on his work surface. Design and make a model of a container to keep the CD's and DVD's neat and safe. The container must:

- ❖ Protect the CD's and DVD's
- ❖ Be neat and safe to use
- ❖ Have compartments for four CD's and four DVD's
- ❖ Be attractive
- ❖ Not too expensive to make

3.1 Write a design a design brief for the product. (3).

3.2 List two constraints. (2)

3.3 List two specifications. (2)

3.4 List two tools and two materials you could use in the making this product. (2)

3.5 What would you work on AFTER having your rough sketches in the design process?

 (1)

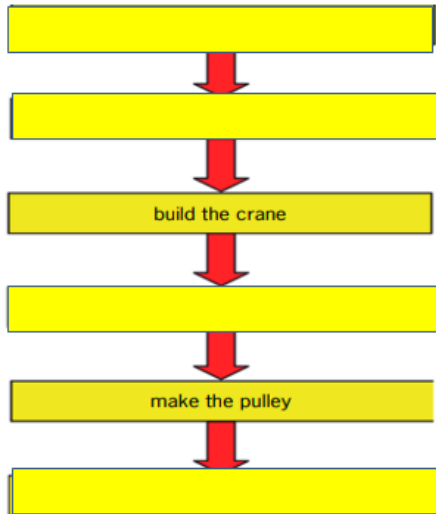
3.6 Write two sentences that could be used as an evaluation of your product. (2)

[12]

QUESTION 4

You were asked to represent the steps to build a crane model as flow chart by one of your technology teachers.

Complete the flow chart that was started by your teacher.

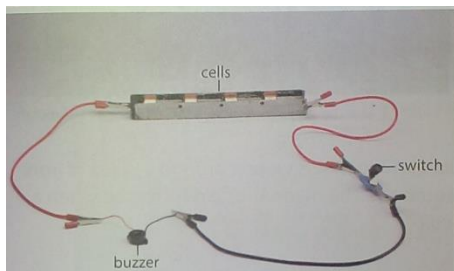


(2x4)

SECTION B:**Question 5:****ELECTRICAL SYSTEMS**

5.1 Redraw the diagram on the left hand side using circuit symbol

(4)

**5.2 Fill in the missing word**

5.2.1 The energy that flows through an electrical circuit is called a _____ (1)

5.3 Classify the following components as **INPUT DEVICES, PROCESS DEVICES AND OUTPUT DEVICES.**

5.3.1 Switch _____ (1)

5.3.2 Wires _____ (1)

5.3.3 Cell _____ (1)

5.3.4 Buzzer _____ (1)

5.4 Look at the figures below and answer the questions that follow.

FIGURE A



FIGURE B



5.4.1 Write down the name of the magnet in figure A. (1)

5.4.2 Where can magnets be used? (1)

5.4.3 Why can a magnet have an effect on a paperclip from a distance? (1)

5.4.4 Are all metals attracted to magnets? Support your answer. (2)

5.4.5 Look at the following figures and answer the following questions.

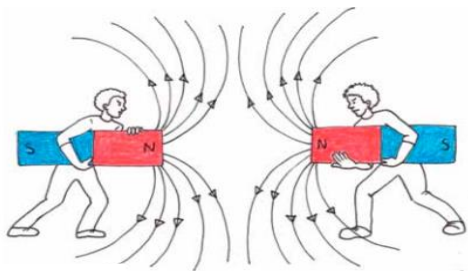


Figure 7

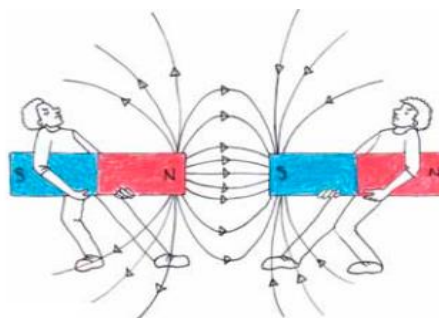


Figure 8

5.4.5.1 Write down what happens when you bring the north poles of the two bar magnets close together (Figure 7) (2)

5.4.5.2 Write down what happens when you bring the North Pole close to South Pole (Figure 8). (2)

SECTION C:**QUESTION 6:****EMERGENCY SITUATIONS****READ THE SCENARIO BELOW AND ANSWER THE QUESTIONS THAT FOLLOW****MORE THAN 300 HOMELESS. SCENARIO**

Last night a fire swept through Chris Hani, a large informal settlement outside town. Six people have died, and over a dozen are being treated in hospital for burns and smoke inhalation. More than 100 families have been left homeless and are being housed in public halls. Aid relief such as blankets and food are being supplied by local residents.

6.1 Describe the problem in the above scenario.

_____ (2)

6.2 Give two possible reasons other than fires that can cause people to become internally displaced in South Africa.

_____ and _____ (2)

6.3 Give two emergency situations that result in people becoming refugees.

_____ and _____ (2)

6.4 Describe the three main problems that the South Africans have against refugees.

_____ (3)

6.5 How can you ensure that people living in shelters stay healthy?

_____ (3)

[12]

THE END

TOTAL 60 MARKS