



# TOM NEWBY SCHOOL EXAMINATION



<b>Subject</b>	<b>Technology</b>	<b>Examiner</b>	<b>Mrs Fourie</b>
<b>Date</b>	<b>15 November 2018</b>	<b>Total marks</b>	<b>60</b>
<b>Grade</b>	<b>7</b>		<b>1 ½ hours</b>
		<b>Moderator</b>	<b>Ms Mpesu</b>

**Special instructions/  
Equipment**

1. Answer all the questions on the paper.
2. Read your questions before answering.
3. Write neatly and legibly.
4. Use a pencil and colouring in pencils for drawings.
5. Good luck! Think before you INK!

This assessment has been compiled using notes and information contained in the Tom Newby School resource material. The marking memorandum has been compiled accordingly. While alternative responses will be given due acknowledgement, the official memorandum will be considered a priority document to ensure uniformity of marking.

Name:	Surname:	Class:
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<b>QUESTION</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>LEARNER'S MARK</b>							
<b>POSSIBLE MARK</b>	<b>6</b>	<b>5</b>	<b>3</b>	<b>8</b>	<b>10</b>	<b>17</b>	<b>11</b>

## SECTION A: Electrical systems and control/ Structures/ Mechanisms

### Question 1 – Match the columns

Match Column A with Column B. Write the chosen letter next to the correct number in Column C, e.g. 1 A (6)

<b>COLUMN A</b>	<b>COLUMN B</b>
1. Natural structure	A. Dense with very few or no open spaces inside it.
2. Axles	B. A stretching force, e.g. a car being towed by a rope.
3. Pulley	C. A mechanism, to lift heavy objects.
4. Solid structure	D. Structures not made by people, e.g. trees, plants.
5. Tension	E. Simplest form of how an electric circuit is connecting.
6. Light bulb/ resistor	F. Rods on which wheels are fixed.

1.	_____	2.	_____	3.	_____	4.	_____	5.	_____	6.	_____
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**Question 2 - Multiple choice**

Choose the correct answer from the statements below. Write down only the number and the correct letter, e.g. 1 D. (5)

1. Reciprocating movement is...
  - a) forming a complete circle
  - b) moving in one direction
  - c) constant forward and backward, upward and downward movement
  - d) forward and backward movement on a fixed axis
  
2. What does a linkage do?
  - a) It changes the direction of a movement
  - b) It changes the distance of a movement
  - c) It is not two or more levers joined together
  - d) It is A and B above
  
3. A short circuit happens when...
  - a) bare wires touch
  - b) there is no connection
  - c) the circuit is closed
  - d) the circuit is open
  
4. What does the vanishing point in a drawing mean?
  - a) It is an unrealistic object
  - b) It is a line that does not end
  - c) It is a perspective line that never meets in the distance
  - d) It makes an object look more realistic when the lines finally meet
  
5. Strong and rigid means...
  - a) breaking / breaks easily
  - b) strongly built
  - c) flexible
  - d) soft and bendable

1.	_____	2.	_____	3.	_____	4.	_____	5.	_____
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**Question 3- Identify images**

Identify the images below. Name them and give an explanation of where / how they are used / how they work. (3)

**Image A**



**Image B**



**Image C**



Image A is a \_\_\_\_\_

Image A

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Image B is a \_\_\_\_\_

Image B

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Image C is a \_\_\_\_\_

Image C

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**Question 4- Fill in the missing words**

Fill in the missing word/ words in the sentences below. (9)

1. A make-shift shelter has \_\_\_\_\_ over a rough frame.
2. \_\_\_\_\_ is a problem for all outdoor cloth.
3. A Xhosa home is a round hut with a \_\_\_\_\_ roof.
4. When we keep food fresh and safe to eat, we \_\_\_\_\_ food.

5. Technology is the use of knowledge, skills, values and \_\_\_\_\_ to meet people's needs and \_\_\_\_\_.
6. The \_\_\_\_\_ of a drawing is when we reduce or enlarge a drawing using the same image but different proportions.
7. A \_\_\_\_\_ disaster is the widespread destruction of homes, farms and buildings, brought about by nature.
8. When protection is given by one country to the citizens of another country, we say they are \_\_\_\_\_ seekers.

## SECTION B: Structures/ Processing/ Impact of Technology

### Question 5- Short questions

Answer the following questions

(10)

1. What is recycling? Give a short definition. (2)

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2. How much percentage of money is spent on a product's packaging? (1)

\_\_\_\_\_

3. Up to \_\_\_\_\_ % of a motor vehicle (car) can be recycled. (1)

4. A first class lever is a simple \_\_\_\_\_ that makes our lives easier, e.g.

\_\_\_\_\_

(2)

5. Explain what a Jaws-of-Life is and where and by whom it is used.

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(2)

6. Name two waste products that you could collect at school / home for recycling. (2)

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**Question 6- Design brief and sketches**

Read the scenario below and write your design brief by adding in your specifications and constraints. (10)

**Scenario**

Building materials in informal settlements usually consist of materials that homeowners collect at rubbish dumps. They also use materials that have been thrown away. The building technique is to construct small one –roomed waterproof shacks or shelters.

The people use rope, wire or anything they can find to hold the walls together. They build the houses very close to each other. They use large stones, bricks, logs and old car tyres or heavy pieces of scrap metal to hold roofing material down.

They line the walls with newspaper or cardboard. Sometimes they line the floor with inexpensive linoleum or they just use the bare earth as flooring.

You must design and draw a waterproof shelter for one of the people.

1. Say what you are going to be making and what materials you will be using? (2)

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2. Write a design brief for the above scenario. List your specifications by saying who the shelter will be made for, what the purpose is, what the appearance will be like, what the sizes, dimensions ,shape, colour, safety and cost will be of the shelter.(5)

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3. Mention three constraints you might have. (3)

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4. Draw a final sketch using grey pencil only of your waterproof shelter. Add colour too. Label it by adding all the materials and showing what your shelter will be made with to make it waterproof and safe. Check the rubric on page 7 for possible marks.

(7)

**Final Sketch**

SKILL	DESCRIPTION	POSSIBLE MARKS
A 3-D Oblique projection of a waterproof shelter.	a) Is it a solution to the problem?	1
	b) Is it a perspective drawing?	2
	c) Have correct measurements been given?	2
	d) Is it labelled and have colours been used?	2
		<b>TOTAL: 7</b>

## Section C: Impact of Technology

### Question 7- Short answers and explanations

Read the following questions and answer to the best of your ability.

**(10)**

1. What is a pulley? What are pulleys used for? (2)

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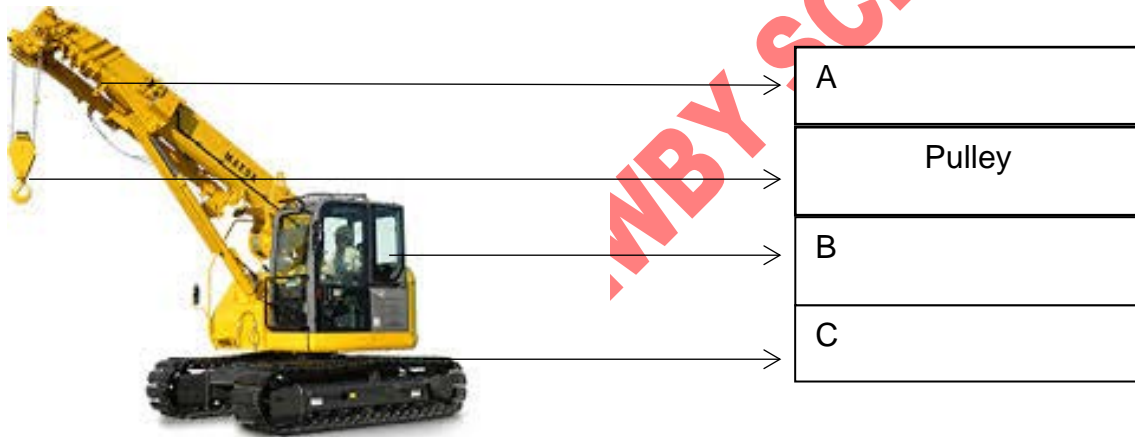
2. What is a hydraulic system? Give any example. (1)

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3. Label the missing parts of the crane in the image below. (3)



4. What is a crane used for? (1)

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5. What is Tastifeed? Who is it given to? (1)

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6. What does the NSRI stand for? (1)

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7. A bullet proof vest worn by police officers / security guards are made from a material called \_\_\_\_\_ . (1)

**GO BACK AND CHECK YOUR ANSWERS!**

**TOTAL: 60 MARKS**