SMARTWIZ

GRADE 7 TECHNOLOGY EXAM

MARKS: 100

MARKS	

TIME: 1 hour 30 minutes

SCHOOL_____

CLASS (e.g. 4A) _____

SURNAME_____

NAME_____

Instructions for Students:

 > Read all instructions carefully before beginning the exam.

 > Write your name and student ID clearly on the answer sheet/booklet.

 > Answer all questions unless otherwise stated.

 > Show all your work/calculations where applicable.

 > Write clearly and legibly.

 > Use blue or black ink only. * Do not use correction fluid/tape.

 > No electronic devices (calculators, phones, etc.) are allowed unless explicitly permitted.

 > Raise your hand if you have any questions.

 > Do not talk to other students during the exam.

 > Any form of cheating will result in disqualification.

This test consists of 3 pages, excluding the cover page.

SECTION A: TECHNOLOGY AND SOCIETY (20 MARKS)

1.1 Define technology in your own words.

_____

_____

1.2 Name THREE ways technology has changed the way people communicate.

- _____
- _____
- _____

1.3 Explain TWO positive effects and TWO negative effects of technology on society.
Positive effects:

- _____
- _____

Negative effects:

- _____
- _____

SECTION B: MATERIALS AND THEIR PROPERTIES (25 MARKS)

2.1 List FOUR different types of materials used in technology projects.

- _____
- _____
- _____
- _____

2.2 For each material below, state one property and one common use:

Material	Property (e.g. flexible, strong)	Common Use (e.g. making tools)
Wood		
Plastic		
Metal		
Fabric		

2.3 Explain why it is important to choose the right material for a product.

_____

_____

_____

SECTION C: TOOLS AND EQUIPMENT (20 MARKS)

3.1 Name FIVE hand tools commonly used in technology projects.

- _____
- _____
- _____
- _____
- _____

3.2 Describe the safety rules you should follow when using tools. List at least THREE.

- _____
- _____
- _____

3.3 What is the difference between a hand tool and a power tool?

_____
_____
_____

SECTION D: PROCESSING AND MANUFACTURING (20 MARKS)

4.1 Describe the meaning of the term 'manufacturing'.

_____
_____

4.2 List FOUR steps involved in making a simple product (e.g., a wooden box).

- _____
- _____
- _____
- _____

4.3 Explain why prototypes are important in the manufacturing process.

_____
_____
_____

SECTION E: TECHNOLOGY IN THE ENVIRONMENT (15 MARKS)

5.1 Explain what sustainable technology means.

5.2 Give TWO examples of sustainable technology.

- _____
- _____

5.3 How can technology be used to protect the environment? Give TWO examples.

- _____
- _____

TOTAL: 100 MARKS

SECTION A: TECHNOLOGY AND SOCIETY (20 MARKS)

1.1 Define technology:

- Technology is the use of knowledge, skills, tools, and materials to solve problems and make life easier.
  (2 marks)

1.2 Three ways technology has changed communication:

- Use of smartphones
- Sending emails instead of letters
- Instant messaging and video calls
  (3 x 2 = 6 marks)

1.3 Two positive and two negative effects of technology:
Positive:

- Easier and faster communication
- Access to information
  Negative:
- Less face-to-face interaction
- Technology addiction or overuse
  (4 x 3 = 12 marks)

SECTION B: MATERIALS AND THEIR PROPERTIES (25 MARKS)

2.1 Four materials:

- Wood, plastic, metal, fabric, glass, paper (any four)
  (4 x 1 = 4 marks)

2.2 Table (2 marks per row: 1 for property + 1 for use):

Material	Property	Use
Wood	Strong, easy to cut	Furniture, building
Plastic	Waterproof, flexible	Bottles, packaging
Metal	Hard, conducts heat	Tools, wires
Fabric	Soft, flexible	Clothing, upholstery

(4 x 2 = 8 marks)

2.3 Why choose the right material:

- The right material ensures the product is strong, safe, suitable for its purpose, and durable.
  (3 marks)

SECTION C: TOOLS AND EQUIPMENT (20 MARKS)

3.1 Five hand tools:

- Hammer, screwdriver, pliers, saw, measuring tape, file
  (5 x 1 = 5 marks)

3.2 Three safety rules:

- Wear protective gear (goggles, gloves)
- Use tools for their correct purpose
- Keep tools clean and stored properly
  (3 x 2 = 6 marks)

3.3 Difference between hand tool and power tool:

- A hand tool is powered by hand, while a power tool uses electricity or batteries.
  (4 marks)

SECTION D: PROCESSING AND MANUFACTURING (20 MARKS)

4.1 Define manufacturing:

- Manufacturing is the process of making products from raw materials using tools and machines.
  (3 marks)

4.2 Four steps to make a product (e.g., wooden box):

- Planning/design
- Measuring and cutting materials
- Assembling parts
- Finishing (painting, polishing)
  (4 x 2 = 8 marks)

4.3 Why prototypes are important:

- They allow testing of the product before final production to check for design flaws or improvements.
  (3 marks)

SECTION E: TECHNOLOGY IN THE ENVIRONMENT (15 MARKS)

5.1 Sustainable technology definition:

- Technology that meets current needs without harming the environment or depleting resources.
  (3 marks)

5.2 Two examples of sustainable technology:

- Solar panels
- Wind turbines
- Electric vehicles
  (2 x 2 = 4 marks)

5.3 Two ways technology protects the environment:

- Recycling systems
- Water-saving irrigation technology
- Eco-friendly packaging
  (2 x 4 = 8 marks)

TOTAL: 100 MARKS