



STUDENT SECTION

Name				Class	
Student MOE number (SIS)		School MOE Number		STUDENT SIGNATURE	
School name					

PLEASE NOTE – This SAMPLE paper is to guide students on question types ONLY, not the content for the final assessed examination. Please refer to the coverage documents & revision notes.

Creative Design & Innovation

11 Advanced

Sample - Term 1

Date: November 2017

Time: TBC

Duration: 35 minutes


STUDENT INSTRUCTIONS –

Students must attempt **all** questions.

For this examination, you must have:

1. An ink pen – blue.
2. A pencil.
3. A ruler.

TEACHER NOTES & INSTRUCTIONS

Please tick  the correct answers in **RED INK** and then write the mark awarded in the marking columns. With multiple mark answers highlight where the mark is awarded by **underlining** or by using an extra tick.

FOR ADMIN ONLY

MARKING RECORD

Section	Section TOTALS
Section 1	
Section 2	
Section 3	
MARKER SIGNATURE	TOTAL MARKS
MODERATOR SIGNATURE	

SECTION 1 – Multiple choice

Choose and circle the correct answer – A, B, C or D.

(1 mark each)

Example: To draw something freehand.

- A. sketch
- B. evaluate
- C. research
- D. organize

1. The ability of a material to resist force without breaking or deforming.
 - A. durability
 - B. hardness
 - C. strength
 - D. properties

2. The measure of a material's ability to withstand tensile stress.
 - A. ductility
 - B. malleability
 - C. fracture
 - D. durability

3. A term to describe how materials perform in everyday use.
 - A. elasticity
 - B. properties
 - C. toughness
 - D. structure

4. The ability of a material to be stretched into another shape without breaking.
 - A. hardness
 - B. durability
 - C. strength
 - D. malleability

5. The most a solid may be stretched without permanent change of size or shape.

- A. plasticity
- B. elastic limit
- C. elasticity
- D. durability

/ 5

SECTION 2 – True or False

Choose and circle the correct answer TRUE or FALSE.

(1 mark each)

Example:

- Aluminium is a non-ferrous metal.

TRUE

FALSE

1. Copper conducts electricity well.

TRUE

FALSE

2. Metals are poor heat conductors

TRUE

FALSE

3. A superconductor can transmit power without loss.

TRUE

FALSE

4. An electromagnet is always magnetic.

TRUE

FALSE

5. Optical refers to light related properties

TRUE

FALSE

/ 5

SECTION 3 – Core content

1 – List & describe **five** electronic components used in a basic electrical circuit.

(5 marks)

/ 5

2a – Describe what ‘digital’ means.

(2 marks)

2b – State whether the devices and products below are ‘analogue’ or ‘digital’.

Choose and circle the correct answer either analogue or digital.

- An MP3 Player is a(n) analogue / digital device.
- A Microphone is a(n) analogue / digital device.
- A computer chip is a(n) analogue / digital device.

(3 marks)

/ 5

3 – Label each column of the colour code table with its function or name. (10 marks)

0
1
2
3
4
5
6
7
8
9 White

0
1
2
3
4
5
6
7
8
9 White

0
1
2
3
4
5
6
7
8
9 White

1
10
100
1000
10000
100000
1000000
0.1 Gold
0.01 Silver

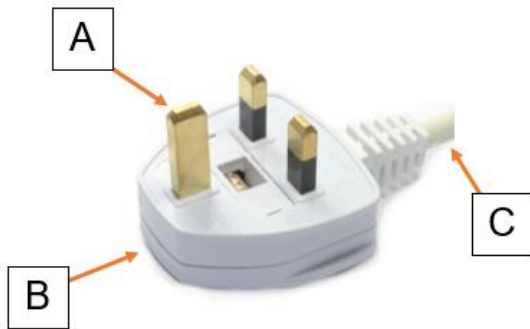
1%
2%
5% Gold
10% Silver

Colour Code Table

/ 10

4a – Identify the properties of the materials needed for the electric plug shown below.

(6 marks)



A	
B	
C	

4b – Suggest suitable materials for part A & B.

Part A _____

Part B _____ (4 marks)

/ 10

5 – Match the type of mechanical force with its name.

(10 marks)

Write the matching letter in the correct box. The first one has been done for you.

Force type	Symbol letter
Fatigue (combined)	F
Tension	
Shearing	
Compression	
Torsion	
Bending	

A

B

C

D

E

F

/ 10

TOTAL
/ 50

You have now finished the examination.