United Arab Emirates
Ministry of Education

الإمارات العربية المتحدة
وزارة التربية والتعليم

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)**

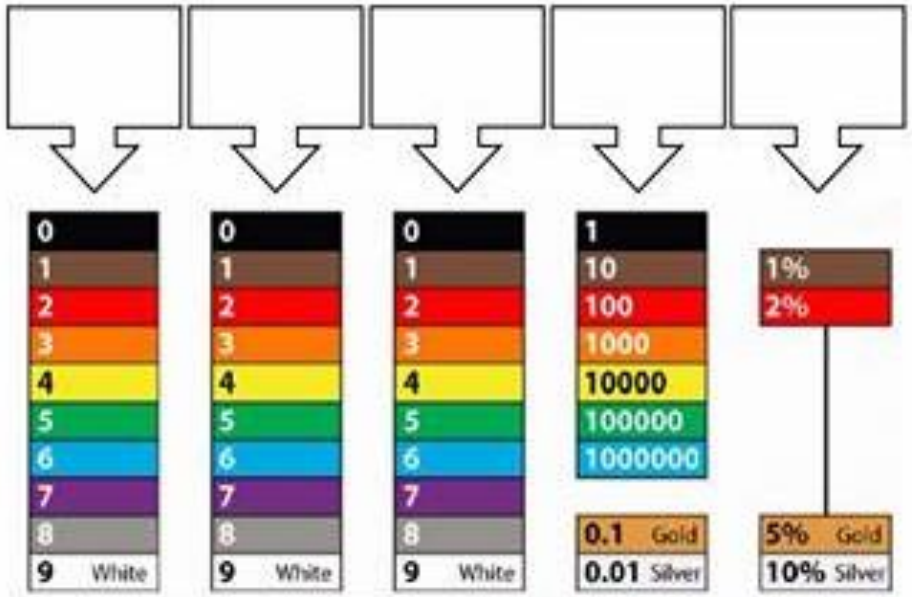
2b – State whether the devices and products below are 'analogue' **or** 'digital'.

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)**

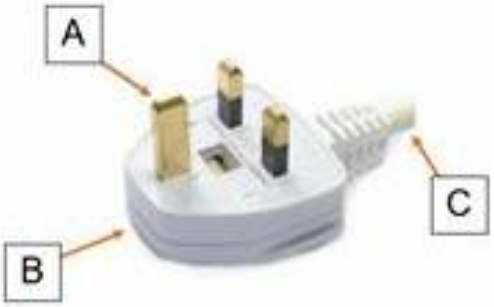


Colour Code Table

/ 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.