



**Coimisiún na Scrúduithe Stáit**  
**State Examinations Commission**

**Junior Certificate 2016**

**Marking Scheme**

**METALWORK**  
**MATERIALS AND TECHNOLOGY**

**Higher Level**

## **Note to teachers and students on the use of published marking schemes**

Marking schemes published by the State Examinations Commission are not intended to be standalone documents. They are an essential resource for examiners who receive training in the correct interpretation and application of the scheme. This training involves, among other things, marking samples of student work and discussing the marks awarded, so as to clarify the correct application of the scheme. The work of examiners is subsequently monitored by Advising Examiners to ensure consistent and accurate application of the marking scheme. This process is overseen by the Chief Examiner, usually assisted by a Chief Advising Examiner. The Chief Examiner is the final authority regarding whether or not the marking scheme has been correctly applied to any piece of candidate work.

Marking schemes are working documents. While a draft marking scheme is prepared in advance of the examination, the scheme is not finalised until examiners have applied it to candidates' work and the feedback from all examiners has been collated and considered in light of the full range of responses of candidates, the overall level of difficulty of the examination and the need to maintain consistency in standards from year to year. This published document contains the finalised scheme, as it was applied to all candidates' work.

In the case of marking schemes that include model solutions or answers, it should be noted that these are not intended to be exhaustive. Variations and alternatives may also be acceptable. Examiners must consider all answers on their merits, and will have consulted with their Advising Examiners when in doubt.

## **Future Marking Schemes**

Assumptions about future marking schemes on the basis of past schemes should be avoided. While the underlying assessment principles remain the same, the details of the marking of a particular type of question may change in the context of the contribution of that question to the overall examination in a given year. The Chief Examiner in any given year has the responsibility to determine how best to ensure the fair and accurate assessment of candidates' work and to ensure consistency in the standard of the assessment from year to year. Accordingly, aspects of the structure, detail and application of the marking scheme for a particular examination are subject to change from one year to the next without notice.

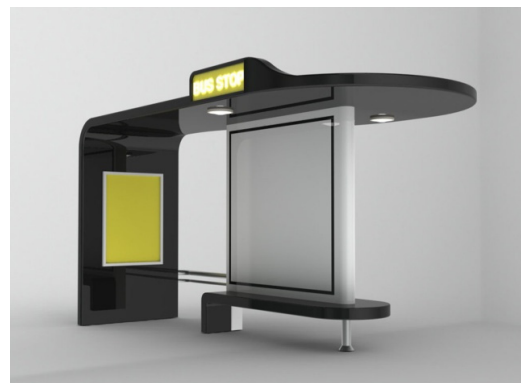
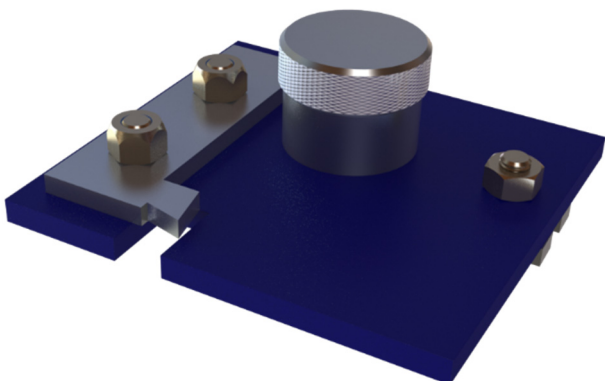
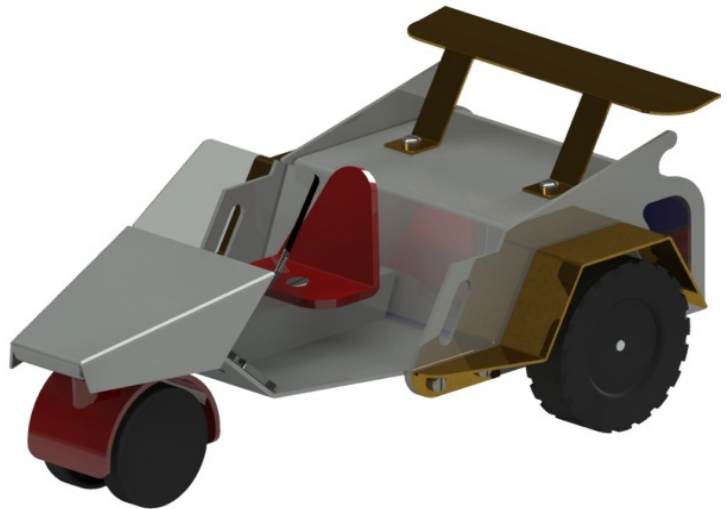
**JUNIOR CERTIFICATE EXAMINATION, 2016**

**METALWORK  
MATERIALS AND TECHNOLOGY**

**HIGHER LEVEL**

**MARKING SCHEME**

Written Examination, Practical Examination and Project



**Written Examination - Answer Question 1, Section A and B, and three other questions.**

**Note: The solutions presented are examples only.**

**All other valid solutions are acceptable and are marked accordingly.**

**Question 1 – Section A (5 parts only)**

- (a) (i) Name part A @ 2 marks  
(ii) Function @ 2 marks **4 MARKS**
- (b) (i) Name part B @ 2 marks  
(ii) Description @ 2 marks **4 MARKS**
- (c) (i) Description @ 2 marks  
(ii) One effect @ 2 marks **4 MARKS**
- (d) (i) Two applications @ 1 mark each  
(ii) Name one @ 2 marks **4 MARKS**
- (e) Any one @ 4 marks **4 MARKS**
- (f) (i) Two property @ 1 mark each  
(ii) One application @ 2 marks **4 MARKS**
- (g) (i) Both components @ 1 + 1 mark  
(ii) Diagram @ 2 marks **4 MARKS**

**Question 1 – Section B (5 parts only)**

- (a) (i) One reason @ 2 marks  
(ii) Description @ 2 marks **4 MARKS**
- (b) (i) Explain @ 2 marks  
(ii) Outline @ 2 marks **4 MARKS**
- (c) (i) Explain function @ 2 marks  
(ii) Explain function @ 2 marks **4 MARKS**
- (d) (i) Design @ 1 mark, Diagram @ 1 mark  
(ii) Description @ 2 marks **4 MARKS**
- (e) One advantage @ 2 marks  
Two steps @ 1 mark each **4 MARKS**
- (f) Feature @ 1 mark, Diagram @ 1 mark  
Two applications @ 1 mark each **4 MARKS**

**Question 2**

- (a) (i) Name @ 2 marks  
(ii) Two sources @ 1 mark each  
(iii) Three factors @ 1 mark each **7 MARKS**
- (b) (i) Design @ 2 marks, info area @ 1 mark  
Advert space @ 1 mark, Diagram @ 3 marks  
(ii) Design @ 2 marks, Diagram @ 2 marks  
(iii) Material @ 1 mark  
(iv) Finish @ 1 mark **13 MARKS**

**Question 3**

- (a) (i) Two reasons @ 2 marks each  
(ii) Description @ 1 mark, Diagram @ 1 mark  
(iii) Identification @ 1 mark, Explain @ 1 mark  
(iv) Two precautions @ 1 mark each **10 MARKS**
- (b) 4 marks **4 MARKS**
- (c) (i) 2 + 1 marks  
(ii) 2 + 1 marks  
(iii) 2 + 1 marks (any 2 parts) **6 MARKS**

**Question 4**

- (a) (i) Name @ 1 mark  
(ii) 3 elements @ 1 mark each  
(iii) Explanation @ 3 marks  
(iv) Description @ 3 marks **10 MARKS**
- (b) (i)-(iv) Two definitions @ 3 marks each **6 MARKS**
- (c) (i) Two metals @ 1 mark each  
(ii) One application @ 2 marks **4 MARKS**

**Question 5**

- (a) (i) Two uses @ 2 + 1 marks  
(ii) Two features @ 1 mark each  
(iii) One function @ 2 marks  
(iv) Two impacts @ 2 + 1 marks **10 MARKS**
- (b) (i) Name @ 2 marks  
(ii) Two applications @ 2 marks each  
(iii) Explain @ 2 marks  
(iv) One advantage @ 2 marks **10 MARKS**

**Question 6**

- (a) (i) Name @ 1 mark  
(ii) Description @ 3 marks  
(iii) Two processes @ 2 + 1 marks  
(iv) Two reasons @ 2 + 1 marks **10 MARKS**
- (b) (i) Description @ 3 marks  
(ii) Two processes @ 2 + 1 marks  
(iii) Two precautions @ 2 marks each **10 MARKS**

**Question 7**

- (a) (i) Purpose @ 1 mark each  
(ii) Classify @ 1 mark each  
(iii) Explain @ 1 mark each  
(iv) Two @ 1 mark each  
(v) Risk @ 1 mark, Precaution @ 1 mark **14 MARKS**
- (b) (i) Name @ 1 mark each  
(ii) Explanation @ 1 mark  
(iii) Reading @ 1 mark **6 MARKS**

# Question 1, Section A – Compulsory

20 marks

Five parts *only* to be counted

- (a) (i) Part **A** is the Spark Plug. 2 marks  
 (ii) A spark plug is a device for delivering electric current from an ignition system to the combustion chamber of a spark-ignition engine to ignite the compressed fuel/air mixture by an electric spark.



4 marks

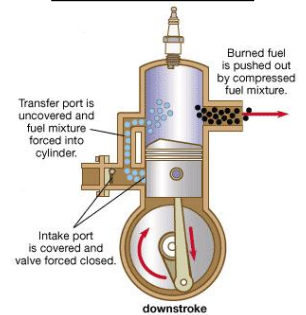
*Describe the function @ 2 marks*

- (b) (i) Part **B** is the Crankshaft. 2 marks  
 (ii) Cooling is facilitated by the metal fins that cover the outside of the Cylinder Head and cylinders, thus increase the surface area that air is in contact with therefore cooling the engine.

4 marks

*Describe the function of cooling fins @ 2 marks*

- (c) (i) Following the ignition of the fuel / air mixture, the piston is forced downward. As it travels downwards, it compresses the mixture in the crankcase and uncovers the transfer exhaust ports. This enables the compressed mixture to transfer to the top of the cylinder and the burnt gases to escape.



*Description @ 2 marks*

- (ii) Engine exhaust fumes contribute to air pollution and are a major ingredient in the creation of smog in some large cities.

4 marks

*Any one environmental effect @ 2 marks*

- (d) (i) Two-stroke engines are commonly use in chainsaws, outboard motors, motorcycles, quad bikes, mopeds, scooters, tuktuks, snowmobiles, karts, model aeroplanes, lawnmowers and dirt bike.



*Any two applications @ 1 mark each*

- (ii) Other types of engine include 4-stroke engines, diesel engines, jet engines and steam engines.

4 marks

*Name any one engine type @ 2 marks each*

- (e) (i) **Thomas Edison** developed many devices including the phonograph, the motion picture camera, and the electric light bulb.  
 (ii) **Steve Jobs** was a founder and CEO of apple computers. He also developed Pixar the computer animation film company.  
 (iii) **Eileen Gray** was an Irish furniture designer and architect.



*Any one @ 4 marks*

4 marks

- (f) (i) Properties of the plastic material include being lightweight, clear and liquid resistant.



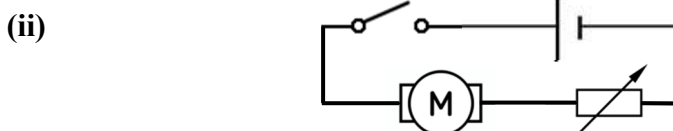
*Any two properties @ 1 mark each*

- (ii) Bottles may be upcycled as jewellery, plant holders or bird feeders.

4 marks

*Any one application @ 2 marks*

- (g) (i) C is a toggle switch. 1 mark  
 D is a variable resistor / potentiometer. 1 mark



4 marks

*Correct circuit diagram @ 2 marks*

# Question 1, Section B – Compulsory

20 marks

Five parts *only* to be counted

- (a) (i) U-Aluminium is suitable as it is a light but rigid structure which supports the other elements of the model trike. *Any one reason @ 2 marks*



- (ii) The 45° and 70° angles on the central support are marked-out using an engineers protractor set to the required angles and a scribe. The angles are then cut and filed to shape. *Description @ 2 marks*

4 marks

- (b) (i) The window is shaped as follows –
- Mark out the centres of the drill Ø6mm holes using a protractor set at 60° and the R9mm arc.
  - Drill the two Ø6mm holes
  - Mark-out the remaining outline
  - Cut out the shape
  - File to the marked shape
  - Smooth file finish
- Explanation @ 2 marks*



- (ii) A good quality finish is achieved by smooth filing (draw filing) and ensuring that all rough edges are removed using a smooth file. *Outline @ 2 marks*

4 marks

- (c) (i) The DPDT switch is a double pole, double throw switch. This type switch allows the model trike to drive forward or in reverse. *2 marks*

- (ii) The push to break switches break the electrical circuit when pressed. These switches can be used to steer the model Trike. *2 marks*

4 marks

- (d) (i) Examples of possible console control designs are shown below.



*Suitable console control design @ 1 mark*  
*Diagram of console control design @ 1 mark*

- (ii) Description of how to manufacture the console control design in (d) (i) required. *Description @ 2 marks*

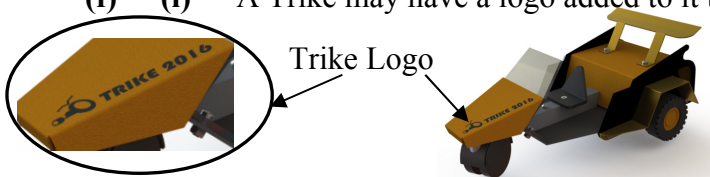
4 marks

- (e) (i) The use of ribbon cable to connect the model and the control console ensures that the multiple wires required are connected neatly and tidily. *2 marks*

- (ii) A clean joint, the use of flux and the correct operating temperature are required to produce good quality soldered joints. *Any two steps @ 1 mark each*

4 marks

- (f) (i) A Trike may have a logo added to it the bodywork – *Any feature @ 1 mark*  
*Diagram @ 1 mark*



- (ii) The Trike is used for sport and food deliveries. *Any two applications @ 1 mark each*

4 marks

**Question 2** **20 marks**

(a) (i) Stage two is the Research / Investigation / Search for information stage.

*Name of stage @ 2 marks*

(ii) Sources that may be used at the research stage may include:-

- books
- magazines
- library
- internet.



*Any two sources @ 1 mark each*

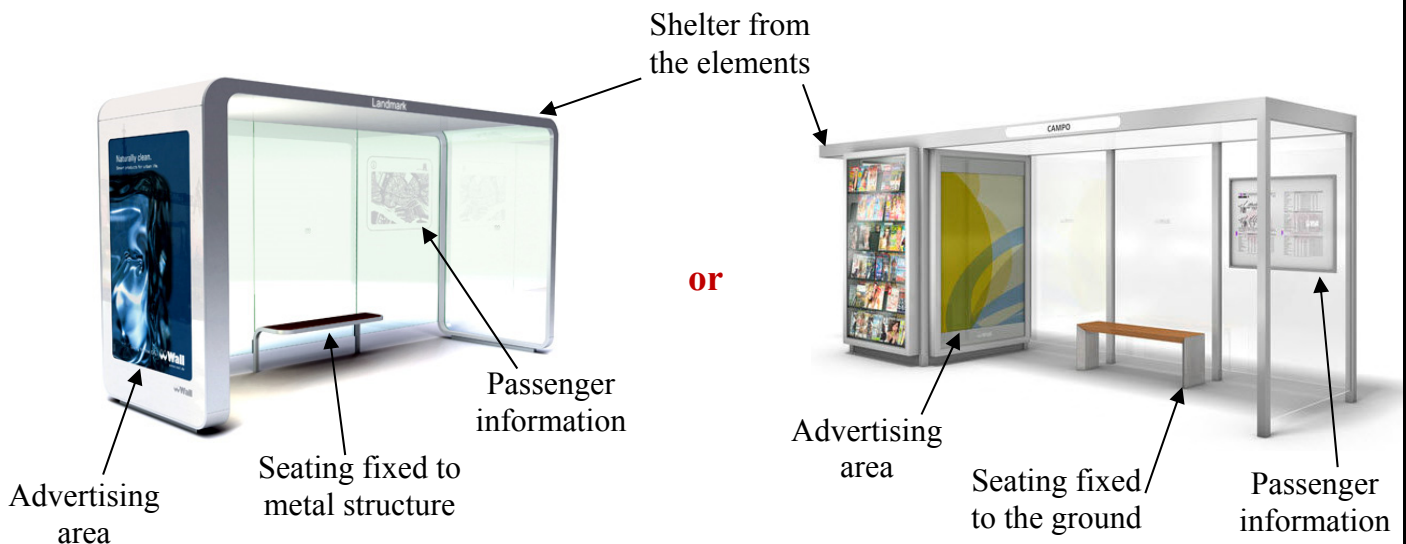
(iii) Factors to be considered for the final design of the microwave may include -

- range of functions
- appearance
- safety
- manufacturing costs.

*Any three factors @ 1 mark each*

**7 marks**

(b) (i) & (ii) solutions may be presented in one diagram.



(i) *Design of a shelter (with protection from elements) @ 2 marks*  
*Passenger information area @ 1 mark*  
*Advertising space @ 1 mark*  
*Diagram of a shelter @ 3 marks*

(ii) *Design of seating @ 2 marks*  
*Diagram of seating @ 2 marks*

(iii) The shelter could be made using a variety of materials including, Steel, Aluminium, Stainless steel, polycarbonate and glass.

*Any suitable materials @ 1 mark*

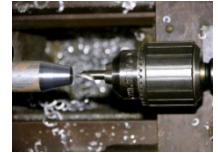
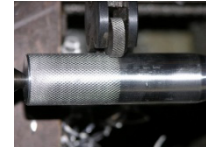
(iv) A suitable finish will depend on the material selected in (b) (iii).

*Any suitable finish @ 1 mark*

**13 marks**

**Question 3** **20 marks**

- (a) (i) The spindle speed may need to be varied for the following reasons -
- machining different types of materials (hard or soft)
  - different types of operations (drilling, Knurling, turning)
  - different types of cutting tools (HSS or HCS)
  - the use or not of coolant.



*Any two reasons @ 2 marks each*

- (ii) The cutting tool is set to centre height for conventional turning operations. *Description @ 1 mark*  
*Diagram @ 1 mark*



- (iii) The turning operation shown is taper turning. Taper turning is completed by setting the top slide to half the required included angle. *Identification @ 1 mark*  
*Explanation @ 1 mark*

- (iv) Safety precautions to be observed when using the lathe may include;-
- Wearing eye protection
  - Tie in all loose clothing
  - Tie back long hair.



*Any two safety precautions @ 1 mark each*

**10 marks**

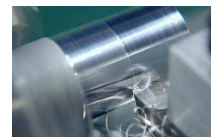
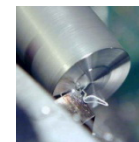
- (b) The speed is 1500 RPM *Correct substitution @ 2 marks*  
*Correct calculation @ 2 marks*

**4 marks**

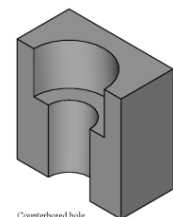
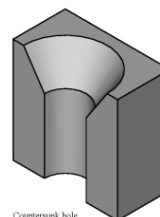
- (c) (i) A **three jaw chuck** is used to hold work on a lathe and is usually self-centring.  
 A **four jaw chuck** is used to hold work on a lathe and jaws may be independently adjusted.



- (ii) **Facing** is the creation of a flat surface by moving the tool at right angles to the work on the lathe.  
**Parallel turning** is the creation of cylinders by moving the tool parallel to the work on the lathe.



- (iii) **Countersinking** is a conical hole cut into the surface of material. A common use is to allow the head of a countersunk bolt or screw, when placed in the hole, to sit flush with or below the surface of the surrounding material



**Counterboring** is a cylindrical flat-bottomed hole that enlarges another coaxial hole. A counterbore hole is typically used when a fastener is required to sit flush with or below the level of a workpiece's surface.

*Any two parts @ 2 marks + 1 mark each*

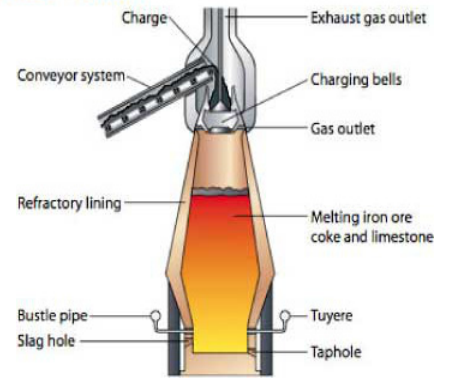
**6 marks**



**Question 4** **20 marks**

- (a) (i) The furnace shown is a blast furnace. *1 mark*
- (ii) The charge is made up of the following materials;
- Coke
  - Limestone
  - Iron ore.
- 3 elements @ 1 mark each*

(iii) Traditional blast furnaces use a "double bell" system where two "bells" are used to control the entry of raw material into the blast furnace. The purpose of the two bells is to minimize the loss of hot gases in the blast furnace. First, the raw materials are emptied into the upper or small bell which then opens to empty the charge into the large bell. The small bell then closes, to seal the blast furnace, while the large bell rotates to provide specific distribution of materials before dispensing the charge into the blast furnace. Some modern furnaces use a system of valves to prevent heat loss.



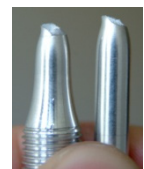
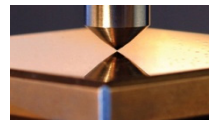
*Explanation @ 3 marks*

(iv) The tuyeres (part 'A') are used to implement a hot blast, which is used to increase the efficiency of the blast furnace and melt the charge. The hot blast is directed into the furnace through water-cooled copper nozzles called tuyeres near the base. The hot blast temperature can be from 900 °C to 1300 °C.

**10 marks**

*Description @ 3 marks*

- (b) (i) **Hardness** is the ability of a material to resist wear, scratching and indentation.
- (ii) **Ductility** is the ability of a material to be stretched / pulled without rupture.
- (iii) **Malleability** is the ability of a material to ability to be hammered, pressed or rolled into thin sheets without rupture.
- (iv) **Conductivity** is the ability of a material to allow heat or electricity to flow through it.



**6 marks**

*Any two definitions @ 3 marks each*

- (c) (i) The bronze medal is an alloy of copper and tin  
*Any two suitable metals @ 1 mark each*
- (ii) Bronze would be a suitable metal for coins, plumbing fittings, jewellery and ornaments.

*Any one suitable application @ 2 marks*



**4 marks**

**Question 5** **20 marks**

- (a) (i) Drone technology has many uses including –
- Search and rescue
  - Military applications
  - Filming sporting events
  - Mapping traffic accidents
  - Protecting wildlife
  - Hurricane hunting.



*Any two suitable uses @ 2 + 1 marks*

- (ii) Design features of a drone may include –
- Lightweight materials
  - Streamlined features
  - Number of propeller blades (4, 6 or 8)
  - Landing legs
  - Camera.



*Any two features @ 1 mark each*

- (iii) Functions of the drone which could be controlled by the remote may include –
- Take off and landing
  - Direction of flight
  - Altitude of flight
  - Operation of a camera.



*Any one function @ 2 marks*

- (iv) Drones may impact positively or negatively on the environment such as –
- Danger to passenger aircraft
  - Monitoring of environmental disasters
  - Replace monitoring aircraft therefore reducing CO2 emissions.

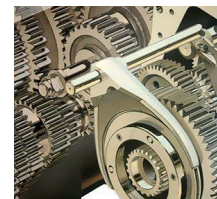


**10 marks**

*Any two impacts @ 2 + 1 marks*

- (b) (i) The drive mechanism shown is a simple gear train. *2 marks*

- (ii) Suitable applications for the simple gear train include –
- A lathe
  - A simple gearbox
  - Farm machinery
  - Mechanical watches.



*Any two suitable applications @ 2 marks each*

- (iii) The keyway is used to connect a rotating machine element to a shaft. The key prevents relative rotation between the two parts and may enable torque transmission.



*Explanation @ 2 marks*

- (iv) The advantages of toothed belt drive include reduced slip, reduced noise and no need for lubrication. *Any one advantage @ 2 marks*

**10 marks**

## Question 6

20 marks

(a) (i) The decorative process shown is called Repoussé  
*Name @ 1 mark*



(ii) The process Repoussé takes a lot of time. The first step is the preparation of the metal by annealing and cleaning. This process is typically repeated many times during the creation of a repoussé work. The thin sheet of metal is placed on a bowl of heated soft pitch. The purpose of using pitch is to provide a solid base to work on, whilst allowing the metal to be pushed out and shaped without obstruction. After hollowing the sheet metal is turned over and definition and detail is added using steel tools.

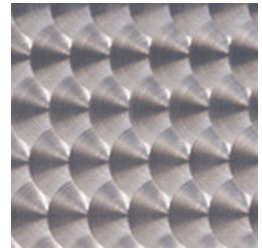


*Description @ 3 marks*

(iii) Decorative metalwork processes include:-

- Engraving
- Etching
- Enamelling
- Mottling.

*Any two processes @ 2 + 1 marks*



(iv) Reasons to apply a decorative finish to metals include:-

- Increased value
- Enhanced aesthetic appearance
- Protective coating. *Any two reasons @ 2 + 1 marks*

10 marks

(b) (i) The sheet metal must be annealed before and during the process of Repoussé. In the case of copper this process is performed by heating the material (generally until glowing, 350° to 650°) for a while and then cooled or quenched in water.

*Description of annealing @ 3 marks*

(ii) Heat treatments which can be applied to metals include:-

- Hardening
- Tempering
- Stress relieving
- Normalising.

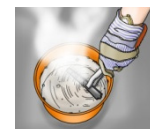
*Any two processes @ 2 + 1 marks*



(iii) Safety precautions to be taken when heat treating metals include:-

- Wearing protective clothing
- Wearing facial protection
- Good ventilation
- Availability of fire extinguishing equipment.

*Any two safety precautions @ 2 marks each*



10 marks

**Question 7** **20 marks**

- (a) (i) **Headphone set** is used with a computer system when an operator is listening or speaking with another person. **Joystick** is often used to control video games, and usually has one or more push-buttons whose state can also be read by the computer. **Data projector** is a device that projects computer output onto a white or silver fabric screen. It is widely used in classrooms for instruction and slide presentations. **Keyboard** is a typewriter-style device which uses an arrangement of keys to act as electronic switches. The keyboard is the most commonly used device for direct (human) input of data into computers.



*Purpose of each device @ 1 mark each*

- |      |                       |                 |        |
|------|-----------------------|-----------------|--------|
| (ii) | <b>Headphone set</b>  | input or output | 1 mark |
|      | <b>Joystick</b>       | input or output | 1 mark |
|      | <b>Data projector</b> | output          | 1 mark |
|      | <b>Keyboard</b>       | input           | 1 mark |

- (iii) **Computer hardware** is the physical parts or components of a computer, such as the monitor, keyboard, computer data storage, and hard disk drive. **Computer software** is any set of machine-readable instructions that directs a computer's processor to perform specific operations.

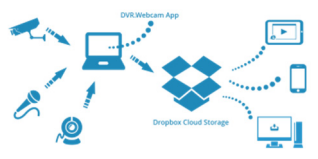
- (iv) **Gigabyte** – is a unit of digital information in computing and telecommunications and is a multiple of the unit byte. **VDU** – stands for the visual display unit which is commonly known as the monitor.



**3D printing** – is also known as additive manufacturing (AM), refers to various processes used to make a three-dimensional object. In 3D printing, successive layers of material are formed under computer control to create an object. These objects can be of almost any shape or geometry and are produced from a 3D model or other electronic data source.



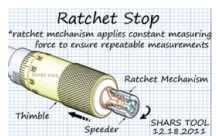
**Dropbox** is a file hosting service that offers cloud storage, file synchronization, personal cloud, and client software.



- (v) Computers are vulnerable to hacking or attack by computer virus. Risks can be minimised by ensuring the computer has an up to date firewall and anti-virus software installed.
- Risk @ 1 mark, Precaution @ 1 mark*

**14 marks**

- |         |                  |        |
|---------|------------------|--------|
| (b) (i) | A is the anvil   | 1 mark |
|         | B is the spindle | 1 mark |
|         | C is the thimble | 1 mark |
|         | D is the frame   | 1 mark |



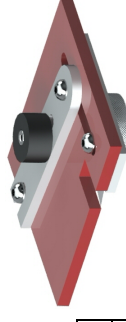
- (ii) The ratchet is a device on end of the thimble that limits applied pressure by slipping at a calibrated torque.
- Explanation @ 1 mark*
- (iii) The micrometer reading is 7.74 mm 1 mark

**6 marks**



Coimisiún na Scrúduithe Stáit  
State Examinations Commission

Junior Certificate Metalwork - Higher Level Practical Examination - Marking Scheme 2016



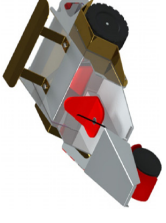
Subjective Marking 1-10	9-10 Excellent	7-8 Very Good	5-6 Good	3-4 Poor	1-2 Very Poor
Subjective Marking 1-5	5 Excellent	4 Very Good	3 Good	2 Poor	1 Very Poor

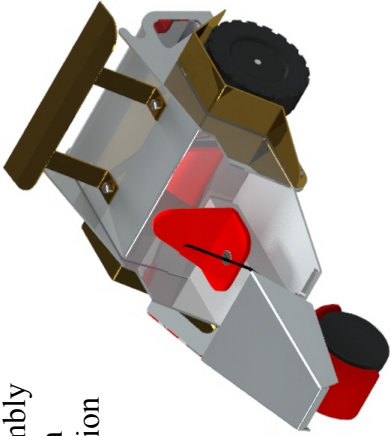
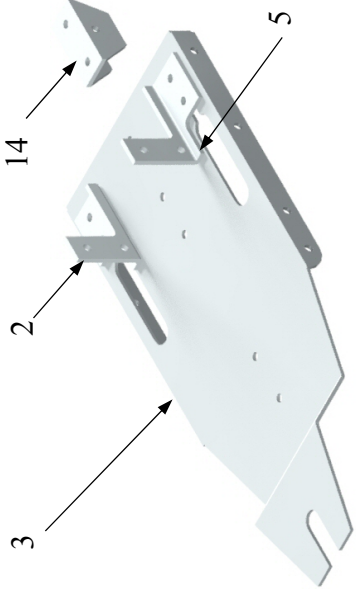
Section	Part Number	Pictorial Sketch / Description	Concept			Mark	Marks
			Complete Piece	Assembly: Subjective Marking 1 - 5	Function: Subjective Marking 1 - 10		
1	Parts 1, 2, 3, 4 & 5			Assembly: Subjective Marking 1 - 5	5	20	
2	Part 1		Part 1 Backplate	20	3	20	
3	Part 2		Part 2 Ram / Tool	20	2	20	
4	Parts 3 & 5		Part 3 Knob	15	Mark Out	20	
					Lengths & Diameters		
					Knurl		
					Chamfers		
					M4 Hole		
5	Part 4		Part 4 Slotted Link	20	CSK Hole	20	
					Lengths & Diameters		
					Mark Out		
					Profile		
					Hole		
					Internal Slot	6	
					External Slot	5	

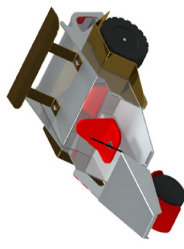
100 Marks (×1.5 = 150 Total)



**Coimisiún na Scrúduithe the Stáit**  
**State Examinations Commission**  
**Junior Certificate - Higher Level Metalwork Project - Marking Scheme 2016**



Subjective Grading 1/10		7-8 Very Good	5-6 Good	3-4 Poor	1-2 Very Poor			
Subjective Grading 1/5		4 Very Good	3 Good	2 Poor	1 Very Poor			
Section	Part Number	Pictorial Sketch/Description			Concept	Mark	Marks	
<b>1</b>	<b>Complete Model</b> (Design Element not included)				<b>Assembly:</b> Subjective Grade 1-5	<b>5</b>	<b>20</b>	
					<b>Finish:</b> Subjective Grade 1-5	<b>5</b>		
					<b>Mechanical Function:</b> Subjective Grade 1-5	<b>5</b>		
					<b>Electrical Function:</b> Subjective Grade 1-5	<b>5</b>		
<b>2</b>	<b>Design</b>  (Note: 20% of the marks will be awarded for this section)	Design and make a <b>Control Console:</b> <b>(i)</b> Handheld and Desk-mounted  <b>(ii)</b> contain electronic components (Parts 27-29) and Battery Holder (Part 26)  <b>(iii)</b> Attach using ribbon cable.			<b>Design:</b> Subjective Grade 1 – 10	<b>10</b>	<b>20</b>	
					<b>Make:</b> Subjective Grade 1 – 5	<b>5</b>		
					<b>Attach:</b> Subjective Grade 1 – 5	<b>5</b>		
<b>3</b>	<b>Parts 3, 14, 2 &amp; 5</b>				<b>Part 3</b> Chassis	Mark Out, Drill, Shape & Bend	<b>12</b>	<b>20</b>
					<b>Part 14</b> Half Axle Support	Mark Out, Drill & Shape	<b>2</b>	
					<b>Part 2</b> Right Motor Support	Mark Out, Drill, Tap & Shape	<b>3</b>	
					<b>Part 5</b> Left Motor Support	Mark Out, Drill, Tap & Shape	<b>3</b>	



**Coimisiún na Scrúduithe Stáit**  
**State Examinations Commission**

**Junior Certificate - Higher Level Metalwork Project - Marking Scheme 2016**

<b>4</b>	<b>Parts 1, 6, 8, 12, 13 &amp; 11</b>		<b>7</b>	<b>20</b>
		<p><b>Parts 1 &amp; 6</b> Bonnet &amp; M8 Plate Nut</p> <p><b>Part 8</b> Windscreen</p> <p><b>Parts 12 &amp; 13</b> Seat &amp; Centre Support</p> <p><b>Part 11</b> Transmission Cover</p>	<p>Mark Out, Drill, Tap, Shape &amp; Bend</p> <p>Mark Out, Drill, Shape &amp; Bend</p> <p>Mark Out, Drill, CSK, Shape &amp; Bend</p> <p>Mark Out, Drill, Shape &amp; Bend</p>	
<b>5</b>	<b>Parts 10, 7, 9, 7 &amp; 4</b>		<b>4</b>	<b>20</b>
		<p><b>Part 10</b> Left Mudguard</p> <p><b>Part 7</b> Left Side Panel</p> <p><b>Part 9</b> Right Mudguard</p> <p><b>Part 7</b> Right Side Panel</p> <p><b>Part 4</b> Spoiler</p>	<p>Mark Out, Drill, Shape &amp; Bend</p> <p>Mark Out, Drill &amp; Shape</p> <p>Mark Out, Drill, Shape &amp; Bend</p> <p>Mark Out, Drill &amp; Shape</p> <p>Mark Out, Drill, Shape &amp; Bend</p>	
		<b>100 Marks (× 1.5 = 150 Total)</b>		