#### Department of Education & Science

# JUNIOR CERTIFICATE EXAMINATION, 2002 METALWORK TECHNIQUES AND DESIGN

### Marking Scheme Ordinary Level Project

Part	Description	Mark	Total
	Engine/Wing/Fuselage attached	3	
Assembly	Fin/Base/Stand attached	3	10
	Wiring and Soldering	4	
Function	Function		10
Finish	Finish		10
	Profile	8	
Wing	Hole	2	10
(Part 1)	11010		
Fuselage	M4 Holes	4	
(Part 2)	Length	2	
	Taper	3	14
	Flat	4	14
	Slot	1	
Tail Fin	Profile	6	6
(Part 3)			
	Profile	10	`
Engine	Countersinking	1	16
(Part 4)	Holes (5 off)	5	10
Stand	Profile	7	
(Part 5)	Holes	4	14
	Bends	3	14
Base	Design Concept		10
(Part 6)			
		Total	100 x 3
			= 300

## JUNIOR CERTIFICATE EXAMINATION, 2002 METALWORK TECHNIQUES AND DESIGN

## Marking Scheme Higher Level Practical

Part	Description	Marks	Total
Assembly	Parts 2,3,4 and 5 connected to Part 1	10	10
Function	Function	10	10
Finish	Finish	10	10
Part 1 (Base Plate)	Profile Holes	8 7	15
Part 2 (Valve)	Profile Slot	10 8	18
Part 3 (Valve Seat)	Profile Hole	10 1	11
Part 4 (Cam)	Profile R15 R5 Tangents Hole csk	6 4 4 4 2	16
Part 5 (Knob)	Profile  Lengths 3x1  Ø 10  Ø 20  Ø 30  M5 Hole	3 2 2 2 1 2	10
		Total	$100 \times 1.5 = 150$

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#### **METALWORK TECHNIQUES AND DESIGN**

## Marking Scheme Higher Level Project

Part	Description	Marks	Total
Assembly	Parts 2,3,4,6,7,10,11 attached to Part 1 Parts 8 & 9 attached to Parts 7 & 11 Part 5 attached to Parts 8 & 9 Electric circuit, Pulleys, Belt and Motor.	6 4	10
Function	Function	10	10
Finish	Finish	10	10
Part 1 (Chassis)	Profile Holes Slot	6 6 3	15
Part 2 (Spoiler)	Profile Holes Bending	8 1 5	14
Part 3 (Seat)	Profile Hole Bending	3 1 2	6
Part 4 (Battery Holder)	Profile Hole Bending	2 1	4
Part 5 (Wheels) x 4	Width/Hole	1	4
Parts 6 & 7 (Axle Swivel)	Profile Holes/Thread Swivel Pin	1 2 1	4
Parts 8 & 9 (Axles)	Lengths Threads	2 2	4
Part 10 (Safety Frame)	Profile Threads	2 1	3
Part 11 (Rear Axle Supports) x 2	Profile Holes Bending	1 1 1	6
Design	Design	10	10
		Total	100 x 1.5 = 150