



Rugby
School

Design and Technology

Sixth Form Examination

Mark Scheme

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| Q1a | Meeting the Requirements | | |
| | Show consideration for the following points: It must be able to support a range of different types of bicycle; It must be unobtrusive when not in use; It must be secure when bicycles are locked to it; It must be safe; It must be suit the environment where it is being used; It must be robust; It must be easy to maintain; It must be aesthetically pleasing; It must be suitable for batch production | 1 mark for each point 5 x 1 marks | Max 5 marks |
| Q1a | A range of ideas | | |
| | A repeat idea A simple idea An idea style displaying creativity or with additional design features | 0 marks 1 mark 2 marks Up to 5 x 2 marks | Max 10 marks |
| Q1a | Quality of Drawings | | |
| | Simple 2D line drawings only Detailed 2D Drawings only Isometric drawings only Detailed, rendered isometric drawings demonstrating well balanced proportions and sensitive line work. A sophisticated combination of different types of drawings with appropriate layout and presentation techniques. | 0-2 marks 3-4 marks 5-6 marks 7-8 marks 9-10 marks | Max 10 marks |
| Q1a | Annotation | | |
| | Simple labels of features apparent in the drawing. Descriptive terms indicating features not immediately apparent. Pertinent evaluative comments addressing the success of the proposals against the brief. | 0-1 mark 2-3 marks 4-5 marks | Max 5 marks |
| | | | Sub-total 30 marks |
| Q1b | Selection of processes | | |
| | Simple feasible process Outline of process(es) for manufacture reflecting materials chosen and scale of production. Detailed explanation of construction and finishing processes reflecting materials chosen and scale of production. | Up to 2 marks 3-4 marks 5 marks | Max 5 marks |
| Q1b | Selection of materials | | |

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| | Simple generic terminology (eg. wood metal, Plastic). Specific named materials and finishes. Specific named materials and finishes sympathetically selected and justifications given for their use. | 0 marks 1-3 marks 4- 5 marks | Max 5 marks |
| Q1b | Dimensioning | | |
| | Basic dimensions given for length, width and thickness. Consideration of detailed dimensioning including material thicknesses and stock materials. | 3 x 1 mark 4-5 marks | Max 5 marks |
| Q1b | Quality of drawing | | |
| | Detailed 2D Drawings only Isometric drawings only Rendered isometric drawings indicating constructional details. A sophisticated combination of different types of drawings showing hidden detail and exploded views. | 0-2 marks 3-4 marks 5-6 marks 7-10 marks | Max 10 marks |
| Q1b | Use of appropriate components | | |
| | Use of generic terms Specific named components Specific named components with details of materials appropriate to use | 0-1 mark 2-3 marks 4-5 marks | Max 5 marks |
| | | | Sub-total 30 marks |
| | | | Total 60 marks |