

## **GENERAL EDUCATION AND TRAINING CERTIFICATE**

## **NQF LEVEL 1**

## **ABET LEVEL 4 SITE-BASED ASSESSMENT**

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| **LEARNING AREA** | **:** | **MATHEMATICS AND MATHEMATICAL SCIENCES** |
| **CODE** | **:** | **MMSC4** |
| **TOOL** | **:** | **INVESTIGATION** |
| **DURATION** | **:** | **3 HOURS** |
| **MARKS** | **:** | **50** |

**This assessment tool consists of 5 pages.**

**INSTRUCTIONS AND INFORMATION.**

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| 1. | This investigation is based on Unit standard ID 7452 and can be given while the Unit standard title is taught. |  |  |

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| 2. | ACTIVITY 1 is marked using a MEMORANDUM and ACTIVITY 2 is marked using a RUBRIC. |  |  |

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| **ACTIVITY 1** |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1.1 | 1.1.1 | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **AREA** in | 0 | 20 | 40 | 60 | 80 | 100 | | **COST** in R | 600 | 700 | 800 | 900 | 1 000 | 1 100 | | |  | |  |
|  | | (TWO correct values-1mark) | |  | | (3) | |

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|  | 1.1.2 | 🗸🗸 Correct formula |  | (2) |

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| --- | --- | --- | --- | --- |
|  | 1.1.3 | 🗸 Correct answer |  | (1) |

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|  | 1.1.4 | 🗸  🗸 | Correct substitution  Correct answer |  | (2) |

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| 1.2 | 1.2.1 | |  |  | | --- | --- | | For 🗸 | Correct addition  Correct answer | |  | (2) |

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|  | 1.2.2 | |  | | |  | |  |
|  | |  | | 4 correct points for the second quotes🗸🗸  Correct graphs🗸 |  | | (3) | |

|  |  |  |  |  |  |  |
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|  | 1.2.3 | |  |  | | --- | --- | | OR  🗸🗸 | Correct answer | |  | (2) |

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|  | 1.2.4 | |  |  | | --- | --- | | 🗸  🗸 | Correct substitution  Correct answer | |  | (2) |

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|  | 1.2.5 | |  |  | | --- | --- | | The point of intersection is 🗸🗸 | Correct co-ordinates | |  | (2) |

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|  | 1.2.6 | |  |  | | --- | --- | | At point , the quotes of for both🗸 painters will be the same 🗸for painting exactly | Prices/quotes of both  The same | |  | (3) |

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|  | 1.2.7 | |  |  | | --- | --- | | When the area to be painted is less than Because painter A' price is cheaper 🗸than painter B since the graph for quote A is below the graph for quote B. 🗸 | Less than  Price cheaper/graph below | |  | (3) |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1.2.8 | | |  |  | | --- | --- | | She will use painter B🗸, because after painter B is cheaper🗸. | Painter B  Cheaper/ graph of quote B is below that of quote A. | | |  | (2) |
|  | |  | |  | | **[27]** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **TOTAL:** |  | **50** |

**ACTIVITY 2**

|  |  |  |  |  |  |  |  |  |  |  |
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|  | **This is the rubric for marking Activity 2** | | | | | | | | | |
| **Criteria** | | **Descriptor** | | | | | | | | **Mark** |
| **Correctness of table completion** | | **Correct completion of table** | | | | | | | |  |
|  | **1** | | **2** | | **3** | | **4** |
| **Table1** | 0-7 values have been filled in the table | | 8-20 values have been filled in the table | | 20-27 values have been filled in the table | | All the 28 values have been filled in the table |
| **Table 2** |
| **Correctness of plotting of points on the grid.** | | **Plotting points on the axis** | | | | | | | |  |
|  | **1** | | **2** | | **3** | | **4** |
| **Graph 1** | 0-2 the points on the table have been plotted correctly | | 3-4 the points on the table have been plotted correctly | | 5-6 the points on the table have been plotted correctly | | All the points on the table have been plotted correctly |
| **Graph 2** |
| **Correctness of the graph drawn.** | | **Drawing of graph** | | | | | | | |  |
| **1** | | | | **2** | | | |
| The graph drawn is not a perfect and a straight line | | | | All 4 graphs perfect straight lines are drawn. | | | |
| **Explanation of the graph about the gradient/slope the graphs.** | | **Gradient/Slope of the graph** | | | | | | | |  |
| **1** | | **2** | | | | **3** | |
| No explanation of all the aspects of the gradient of the graph | | Some aspects of the gradient are explained | | | | All aspects of the gradient are explained e.g. shape, direction of the line, increasing/ decreasing of the graphs. | |
|  | |  | |  | | | | **TOTAL** | |  |

|  |  |  |
| --- | --- | --- |
| **TOTAL:** |  | **50** |