

## **GENERAL EDUCATION AND TRAINING CERTIFICATE**

## **NQF LEVEL 1**

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

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| **LEARNING AREA** | **:** | **MATHEMATICS AND MATHEMATICAL SCIENCES** |
| **CODE** | **:** | **MMSC4** |
| **TOOL** | **:** | **TEST** |
| **TIME** | **:** | **2 HOURS** |
| **MARKS** | **:** | **50** |

**This assessment tool consists of 4 pages.**

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| **INSTRUCTIONS AND INFORMATION FOR THE TEACHER** |  |  |

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| 1. | This task is set on:   * US ID 7448 SO1,2,3,4 and 5 * US ID 7452 SO1,2 and 3 * US ID 7453 SO1,2 and 3 |  |  |

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| 2. | This task should be done individually and under controlled circumstances. |  |  |

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| 3. | Consolidation of the unit standards by working through previous question papers should also be done in conjunction with this task to prepare learners for the examination. |  |  |

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| **QUESTION 1** |  |  |

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| 1.1 | 1.1.1 | | 39 🗸; 48🗸 | | Each correct answer | (2) |
|  | 1.1.2 | | Linear🗸  OR  x –values directly proportional to the y-values🗸 | | Correct answer  Correct reason | (2) |
|  | 1.1.3 | | Add 9 to each term to get the following term🗸  OR  Increase by 9🗸 | | Correct answer | (1) |
| 1.2 | | 🗸 | | 🗸 | Each correct substitution  Each correct answer | (4) |
| 1.3 | | 1.3.1 | |  | | --- | | STAGE 3  🗸🗸  3 black  9 white | | | Correct number of black and white marbles  Correct layout | (2) |
|  | | 1.3.2 | Substitute at different stages number() into  to see if desired numbers of white marbles () are obtained  : 🗸  🗸  :  OR  Constant difference = 3 linear rule  Substitute =3(1) = 3🗸 (or any other stage number and corresponding the black marbles.🗸 | | Each correct difference(s)=3 | (2) |

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|  | 1.3.3 | (a)white marbles 🗸  (b) white marbles 🗸 | Each correct answer | (2) |
|  | 1.3.4 | 🗸  🗸 | Correct substitution  Correct answer | (2)  **[17]** |

**QUESTION 2**

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| 2.1 | )  🗸🗸🗸 | | Each correct term | | (3) |
| 2.2 | 2.2.1 | 🗸🗸🗸 | Each correct term | (3) | |
|  | 2.2.2 | 🗸🗸 | Each correct term | (2) | |
| 2.3 | 2.3.1 | 🗸🗸 | Each correct factor | (2) | |
|  | 2.3.2 | 🗸🗸 | Each correct bracket | (2) | |
| 2.4 | 🗸  🗸 | | Correct transposing  Correct answer | | (2)  **[14]** |

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| **QUESTION 3** |  |  |

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| 3.1 | 3.1.1 | Athletics🗸 |  | (1) |
|  | 3.1.2 | Total number of tickets sold is 57 11424🗸 | Correct answer | (1) |
|  | 3.1.3 | Percentage for swimming = 🗸  = 31%🗸 | Correct substitution  Correct answer | (2) |
| 3.2 | 3.2.1 |  | Correct answer | (1) |
|  | 3.2.2 | For y- intercept let x=0  🗸  For x-intercept let y=0  🗸 | Correct substitution  Correct answer  Correct substitution  Correct answer | (4) |
|  | 3.2.3 | Gradient = 🗸 | Correct answer | (1) |
|  | 3.2.4 | decreasing🗸 | Correct answer | (1)  **[11]** |

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| **QUESTION 4** |  |  |

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| 4.1 | The theorem of Pythagoras states:In a right-angle triangle the square of the hypotenuse is equal to the sum of the square of the other two sides. 🗸🗸 | Correct definition | (2) |
| 4.2 | 🗸 (theorem of Pythagoras)  🗸  🗸  🗸 | Correct substitution  Correct simplification  Correct answer  Correct unit | (4) |
| 4.3 | Diagram A🗸 | Correct answer | (1) |
| 4.4 | Enlargement🗸 | Correct transformation | (1)  **[8]** |

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