

## **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** |
| **TASK** | **:** | **TEST** |
| **DURATION** | **:** | **2 HOURS** |
| **MARKS** | **:** | **50** |

**This assessment task consists of 5 pages and 1 addendum.**

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| **INSTRUCTIONS AND INFORMATION** |  |  |

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| 1. | Answer ALL the questions in the ANSWER BOOK. |  |  |

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| 2. | Calculators may be used, and ALL calculations must be shown. |  |  |

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| 3. | Number the answers according to the numbering system used in this question paper. |  |  |

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| 4. | QUESTION 4.1.1 must be answered on ADDENDUM A (attached) and be handed in with the ANSWER BOOK. |  |  |

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| **QUESTION 1** |  |  |

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| 1.1 | Study the following pattern and answer the questions: … |  |  |

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|  | 1.1.1 | Determine the value of the common difference between the successive terms. |  | (1) |

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|  | 1.1.2 | Determine the next two terms in the pattern. |  | (2) |

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|  | 1.1.3 | Is the pattern increasing or decreasing? |  | (1) |

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|  | 1.1.4 | Describe the pattern using your own words. |  | (2) |

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|  | 1.1.5 | Generate the rule orof the pattern. |  | (2) |

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|  | 1.1.6 | Determine theterm of the pattern using the formula found in QUESTION 1.1.4. |  | (2) |

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|  | 1.1.7 | If the pattern continues; determine what term in this pattern will be |  | (2)  **[12]** |

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| **QUESTION 2** |  |  |

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| 2.1 | Study the graphs below and explain what each represent. Write only the answer (A, B, or C) next to the question number 2.1 |  |  |

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|  | **B**  **A**  **C** |  |  |

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|  | 2.1.1 | A discrete, increasing, linear function. |  |  |

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|  | 2.1.2 | A continuous, decreasing, linear function. |  |  |

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|  | 2.1.3 | A non –linear function. (1 x 3) |  | (3) |

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| 2.2 | Study the graph below that shows the actual percentage that Elizabeth obtained in English tests for last year to answer the questions. |  |  |

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|  | C:\Users\NGOBENI TA\Desktop\baba\images-1.jpeg |  |  |

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|  | 2.2.1 | Determine the ordered pairs of point A and B and explain what these co-ordinates represent in terms of the performance of Elizabeth. |  | (2) |

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|  | 2.2.2 | What percentage was obtained by Elizabeth on her fourth test? |  | (1) |

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|  | 2.2.3 | Between which two tests was there a major increase on the marks obtained and by how much? |  | (2) |

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|  | 2.2.4 | According to the graph what is the highest mark that she obtained? |  | (1) |

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|  | 2.2.5 | How many tests did Elizabeth get less than 60%? |  | (1) |

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|  | 2.2.6 | Referring to the graph, explain Elizabeth's performance in her English test scores. |  | (2) |

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|  | 2.2.7 | Is it possible to predict how she will perform the following year based on these scores? Motivate your answer. |  | (2)  **[14]** |

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| **QUESTION 3** |  |  |

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| 3.1 | Simplify the following expressions: |  |  |

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|  | 3.1.1 | ++ |  | (2) |

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|  | 3.1.2 |  |  | (3) |

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| 3.2 | Factorise the following expressions completely: |  |  |

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|  | 3.2.1 | ++ |  | (3) |

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|  | 3.2.2 | ++ |  | (2) |

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| 3.3 | Solve for if + |  | (2) |

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| 3.4 | An electrician charges per hour for labour, as well as fixed amount of R60. He works for 5 hours in Mr Louw's house for fixing some plugs. Formulate an equation and calculate how much will Mr Louw pay the electrician. |  | (3)  **[15]** |

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| **QUESTION 4** |  |  |

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| 4.1 | In the diagram below a triangle ABC is drawn on the Cartesian plane. |  |  |

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|  | 4.1.1 | Draw the reflection of in the using ADDENDUM (attached). Clearly label all the points and. |  | (3) |

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|  | 4.1.2 | Copy and complete the following co-ordinates:  ( |  | (3) |

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|  | 4.1.3 | State the rule in the formin QUESTION 4.1.1 |  | (3)  **[9]** |

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

**ADDENDUM**

**CLC …………………………………………………………………………**

**NAME ………………………………………………………………………**

