

## **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** |
| **TASK** | **:** | **ASSIGNMENT** |
| **TIME** | **:** | **TWO WEEKS** |
| **MARKS** | **:** | **50** |

**This assessment task consists of 5 pages and an Annexure.**

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| **INSTRUCTIONS AND INFORMATION** |  |  |

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

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| 2. | Read ALL the questions carefully. |  |  |

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| 3. | Calculators may be used. |  |  |

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| 4. | Clearly show calculations, diagrams, graphs, et cetera which you have used in determining the answers, |  |  |

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| 5. | Number the answers according to the numbering system used in this question paper. |  |  |

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| 6. | QUESTION 2.1.3 and QUESTION 3.1.4 must be answered on the ANNEXURE provided and be handed with the answer book. |  |  |

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| **QUESTION 1** |  |  |

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| 1.1 | Percy cycles at a constant speed from his home (Point A) to town (Point B). The graph below represents his journey to town and back home. |  |  |

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|  | 1.1.1 | Determine the distance from Percy’s home to town. |  | (1) |

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|  | 1.1.2 | Write down the co-ordinates of point S. |  | (2) |

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|  | 1.1.3 | Between which two points did he stop cycling for a longer time? |  | (1) |

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|  | 1.1.4 | Hence calculate the time in hours for which he stopped cycling for the longest period. |  | (3) |

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|  | 1.1.5 | Calculate the speed in at which Percy travelled from home to town.  Use formula: |  | (3) |

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|  | 1.1.6 | He leaves home at in the morning and cycles to town. Calculate the time he arrived back home. |  | (4) |

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|  | 1.1.7 | Percy decided to use a car the next day and drives at an average speed of 100km/h. How long will it take him to reach town? Leave your answer in minutes. |  | (4)  **[18]** |

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| **QUESTION 2** |  |  |

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| 2.1 | Steven wants to hire a DVD for 7 to 14 days. He goes to two shops. The information below shows the rates of the two shops. |  |  |

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|  | |  |  | | --- | --- | | Shop A | Shop B | | Deposit: | Deposit: R350 | | Daily rates: | Daily rates: | | **C:\Users\NGOBENI TA\Desktop\tk\HMV-8.7.2013.jpg** |  |

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|  | 2.1.1 | Write down equations for calculating the cost from both shops in the form of:, where is the cost and are number of days. |  | (4) |

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|  | 2.1.2 | The table below shows the relationship between the number of rental days and the cost of the DVD. Redraw the table and complete the missing information. |  |  |

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|  | 2.1.3 | Use the attached Annexure to draw two graphs on the same set of axes. The first graph must show the cost of renting from shop A and the number of days. The second graph must show the cost of renting from shop B and the number of days. Clearly label each graph. |  | (5) |

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|  | 2.1.4 | Use dotted lines and to show the point where the cost is the same for both shops. Plot this point on your graph and label this as point C. |  | (2) |

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|  | 2.1.5 | Write down the co-ordinates of point C? |  | (2) |

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|  | 2.1.6 | Which shop should Steven choose if needs to hire the DVD for 14 days? Motivate your answer. |  | (2)  **[19]** |

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| **QUESTION 3** |  |  |

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| 3.1 | Quadrilateral NOPQ lies in the second quadrant. The transformed quadrilateral lies in the third quadrant. |  |  |

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|  | 3.1.1 | What type of a quadrilateral is NOPQ? |  | (1) |

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|  | 3.1.2 | Write down the co-ordinates for each point of quadrilateral |  | (4) |

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|  | 3.1.3 | Describe the transformation from quadrilateral to quadrilateral |  | (2) |

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|  | 3.1.4 | Draw the quadrilateral and name it which is the result of shifting 5 units to the right. |  | (2) |

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|  | 3.1.5 | Calculate the perimeter of . Round off the answer correct to THREE decimal places. |  | (4)  **[13]** |

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

ANNEXURE

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| **NAME AND SURNAME:** |  |

**QUESTION 2.1.3**

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**QUESTION 3.1.4**

