

 Education

 KwaZulu-Natal Department of Education

 REPUBLIC OF SOUTH AFRICA

**MATHEMATICS**

**COMMON TEST**

# MARCH 2018

**MARKING GUIDELINE**

# NATIONAL

# SENIOR CERTIFICATE

# GRADE 10

# MARKS: 50

## TIME:  hour

##### This marking guideline consists of 5 pages.

**QUESTION 1**

|  |  |  |
| --- | --- | --- |
| 1.1.1 |  | ✓  ✓  (2) |
| 1.1.2 | =  | ✓  ✓  (2)  |
| 1.2.1 |  | ✓ ✓ ✓ ✓   (4) |
| 1.2.2 |   | ✓  denominator✓  numerator✓ answer (3) **[11]** |

**QUESTION 2**

|  |  |  |
| --- | --- | --- |
| 2.1 |  | ✓ prime bases  🗸raising powers🗸answer (3) |

|  |  |  |
| --- | --- | --- |
| 2.2.1 |  | ✓  prime base✓ answer (2) |

|  |  |  |
| --- | --- | --- |
| 2.2.2 |  | ✓ ✓ bracket i.e. (✓ answer (3) |
| 2.3.1 |  | ✓  common base ✓ equating exponents   (2) |
| 2.3.2 |  | ✓ (1) |
| 2.3.3 |  ……. (1) ……. (2) (1) + (2) =  = 45 | ✓solving simultaneously (any method)✓✓✓ answer (4) **[15]** |

**QUESTION 3**

|  |  |  |
| --- | --- | --- |
| 3.1.1 |  | ✓ factors✓  (2) |
| 3.1.2 |  | ✓ dividing byor squaring both sides✓ answer (2) |
| 3.1.3 | 3.1.3.1   | ✓  (1) |
|   | 3.1.3.2   | ✓ (1) |
| 3.2 |  | ✓ ✓  (2) **[8]**  |

**QUESTION 4**

|  |  |  |
| --- | --- | --- |
| 4.1 |  13 tiles and 16 tiles | ✓ 13 and 16 (1) |
| 4.2 |  | ✓ 3*n* ✓ +1  (2) |
| 4.3 |  = 601 tiles  | ✓ substitution✓ answer (2) |
| 4.4 | There will be 1000 tiles in pattern 333. | ✓ substitution✓ answer (2) **[7]** |

**QUESTION 5**

|  |  |  |
| --- | --- | --- |
| 5.1.1 |   | ✓  (1) |
| 5.1.2 |  | ✓  (1) |
| 5.2 |  |  ✓ ✓✓  (3) |

|  |  |  |
| --- | --- | --- |
| 5.3 | Height of Short TreeHeight of Tall Tree  | ✓  using correct trig ratio ✓ ✓ CA  ✓ CA  (4)**[9]** |

 **TOTAL MARKS: 50**