ACE Examination 2016

Year 8 Mathematics Half Yearly Examination

Worked solutions and marking guidelines

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| **Section 1** | | |
|  | **Solution** | **Criteria** |
| 1 |  | 1 Mark: B |
| 2 |  | 1 Mark: D |
| 3 | 5 more than 6 times *x* | 1 Mark: A |
| 4 |  | 1 Mark: C |
| 5 | B | 1 Mark: B |
| 6 |  | 1 Mark: C |
| 7 |  | 1 Mark: D |
| 8 | Pentagon is a two dimensional shape. | 1 Mark: D |
| 9 |  | 1 Mark: B |
| 10 | Between 2 and 3. | 1 Mark: C |
| 11 |  | 1 Mark: B |

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| 12 |  | | 1 Mark: B |
| 13 |  | | 1 Mark: B |
| 14 |  | | 1 Mark: D |
| 15 |  | | 1 Mark: D |
| 16 | 5.0081 is the smallest value.  (zero tenths and zero hundredths) | | 1 Mark: A |
| 17 | or  Next number divisible by 9 is 6147 + 9 = 6156.  Add 3 | | 1 Mark: B |
| 18 |  | | 1 Mark: B |
| 19 | A  B  C  D | | 1 Mark: B |
| 20 |  |  | 1 Mark: C |

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| **Section 2 Part B** | | |
|  | **Solution** | **Criteria** |
| 21(a) | 60% = 0.600, 0.630, 0.605,  Descending order: 0.63, , 0.605 and 60%. | 1 Mark: Correct answer. |
| 21(b) |  | 1 Mark: Correct answer. |
| 21(c) | Temperature at the summit is | 1 Mark: Correct answer. |
| 21(d) | Total number of parts = 5 + 7 = 12    Ratio is 30 kg to 42 kg | 1 Mark: Correct answer. |
| 21(e) |  | 1 Mark: Correct answer. |
| 22(a) (i) |  | 1 Mark: Correct answer. |
| 22(a) (ii) |  | 1 Mark: Correct answer. |
| 22(a) (iii) |  | 1 Mark: Correct answer. |
| 22(b) (i) |  | 1 Mark: Correct answer. |
| 22(b) (ii) |  | 1 Mark: Correct answer. |

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| 23(a) (i) |  | 1 Mark: Correct answer. |
| 23(a) (ii) |  | 1 Mark: Correct answer. |
| 23(b) |  | 1 Mark: Correct answer. |
| 23(c) | (Revolution measures 360º) | 1 Mark: Correct answer. |
| 23(d) |  | 1 Mark: Correct answer. |
| 24(a) | Pythagoras theorem | 1 Mark: Correct answer. |
| 24(b) |  | 1 Mark: Correct answer. |
| 24(c) (i) |  | 1 Mark: Correct answer. |
| 24(c) (ii) |  | 1 Mark: Correct answer. |
| 24(d) |  | 1 Mark: Correct answer. |

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| **Section 2 Part A: Advanced** | | | | |
|  | **Solution** | | | **Criteria** |
| 25(a) (i) |  | | | 1 Mark: Correct answer. |
| 25(a) (ii) |  | | | 1 Mark: Correct answer. |
| 25(b) |  | | | 1 Mark: Correct answer. |
| 25(c) (i) | Isosceles triangle – base angles are equal.  (angle sum of a triangle) | |  | 1 Mark: Correct answer. |
| 25(c) (ii) | (straight line is 180˚) |  | | 1 Mark: Correct answer. |
| 26(a) (i) |  | | | 1 Mark: Correct answer. |
| 26(a) (ii) |  | | | 1 Mark: Correct answer. |
| 26(b) |  | | | 1 Mark: Correct answer. |
| 26(c) |  | | | 1 Mark: Correct answer. |
| 26(d) |  | | | 1 Mark: Correct answer. |