MATHEMATICS

**Calculator-assumed**

**ATAR course examination 2018**

# Marking Key

Marking keys are an explicit statement about what the examining panel expect of candidates when they respond to particular examination items. They help ensure a consistent interpretation of the criteria that guide the awarding of marks.

The examining panel provide a provisional marking key. The marking key is refined or modified as necessary in the light of sample marking and discussion between the chief examiner and the chief marker.

Marking keys are an explicit statement about what the examiner expects of candidates when they respond to a question. They are essential to fair assessment because their proper construction underpins reliability and validity.

When examiners design an examination, they develop provisional marking keys that can be reviewed at a marking key ratification meeting and modified as necessary in the light of candidate responses.

**Section Two: Calculator-assumed xx% (xx Marks)**

**Question 9 (x marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 10 (x marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(d) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(e) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 11 (x marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 12 (x marks)**

(a) (i) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(ii) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(d) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 13 (x marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(d) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(e) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(f) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 14 (x marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (i) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(ii) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 15 (x marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 16 (x marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(d) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 17 (x marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 18 (x marks)**

10

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 19 (X marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(d) (i) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(ii) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(iii) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 20 (x marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(d) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(e) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(f) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

**Question 21 (x marks)**

(a) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(b) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(c) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |

(d) (x marks)

|  |
| --- |
| **Solution** |
|  |
| **Specific behaviours** |
| 🗸  🗸  🗸  🗸 |