**Classification (answers)**

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| Instructions to students  • You have 50 minutes to complete the test.  • Please answer all questions in the spaces provided.  • There is to be no talking during the test. | Marks  Section I: Multiple-choice questions: 5 marks  Section II: Short-answer questions: 13 marks  Section III: Extended-response questions: 7 marks  Total: 25 marks |

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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Score: /25  Grade: % |
| Comments: | |

Section I: Multiple-choice questions

For each question, circle or highlight the correct answer.

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| 1 What kingdom does the mould on this bread belong to? | |  |
| A | Fungi |
| B | Monera |
| C | Protista |
| D | Plantae |
| 2 The scientist who worked out a classification system with seven major groups was: | | |
| A | Aristotle. | |
| B | Antonie van Leeuwenhoek. | |
| C | Carl Linnaeus. | |
| D | Isaac Newton. | |
| 3 Which of the following is true about a dichotomous key? | | |
| A | It looks like a tree with many individual branches. | |
| B | It looks like a tree with branches that always splits into four. | |
| C | It looks like a tree with branches that always split into two. | |
| D | It has overlapping circles. | |

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| 4 What class of vertebrates would this animal be classified into? | |
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| A | Reptilia |
| B | Mammalia |
| C | Pisces |
| D | Aves |
| 5 Which is the best description of an autotroph? | |
| A | An autotroph gets its food from other organisms. |
| B | An autotroph makes its own food from sunlight. |
| C | An autotroph is best classified under kingdom Protista. |
| D | An autotroph is another word for heterotroph. |

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|  | Section I  Total marks:  /5 marks |

Section II: Short-answer questions

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| 6 Is a mushroom a plant? Give a reason for your answer. | | |
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| No (1 mark), because a mushroom does not make its own food (1 mark). | | |
|  | | /2 marks |
| 7 Name two animals that are endotherms (have a constant body temperature). | | |
| Students’ answers will vary (1 mark each).  Any two birds or mammals. | | |
|  | | /2 marks |
| 8 Give one example of vertebrate that would belong to each of the five classes: | | |
| Mammalia |  | |
| Aves |  | |
| Reptilia |  | |
| Amphibia |  | |
| Pisces |  | |
| Students’ answers will vary (1 mark each for each correct example). | | /5 marks |
| 9 Use the tabular key to classify the four organisms shown below. | | |

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| 1 | Body spongy, with many holes | **Poriferan** |
| Body not spongy | Go to 2 |
| 2 | Soft body, no shell | Go to 3 |
| Outside shell or hard cover | Go to 6 |
| 3 | Many tentacles or arms | Go to 4 |
| Long body without tentacles | Go to 5 |
| 4 | Tentacles around the mouth of a sac-like body | **Cnidarian** |
| Arms with suction discs | **Mollusc** |
| 5 | Soft body, large foot | **Mollusc** |
| Worm-like or leaf-like | **Nematode, platyhelminth or annelid** |
| 6 | Proper shell or smooth, hard covering | Go to 7 |
| Spiny skin with rough covering | **Echinoderm** |
| 7 | Limbs in pairs | **Arthropod** |
| Shell, no segments, large foot | **Mollusc** |

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| Snail: | Spider: | |
| Jellyfish: | Brittle star: | |
| Award 1 mark for each correct answer.  Snail – Mollusc  Jellyfish – Cnidarian  Spider – Arthropod  Brittle star – Echinoderm | | /4 marks |
|  | | Section II  Total marks:  /13 marks |

Section III: Extended-response questions

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| 10 Write a paragraph (at least three sentences) describing the Linnaean classification system. | |
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| The Linnaean classification system was created by Carl Linnaeus (1mark), and is based on seven different levels of classification (kingdom, phylum, class, order, family, genus and species) (1 mark). It uses the Latin language to give things names (1 mark), of which there are two parts to each name (the genus and the species) (1 mark). The system is used to give scientific names to living things (1 mark). | |
|  | /5 marks |

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| 11 The southern barred frog was once found in Victoria but is probably now extinct in this state. It is now mainly found in some coastal parts of New South Wales. Their soft, slimy skin is yellow-grey in colour. It grows to about 8 cm in size. They are always found close to running streams and moist gullies in undisturbed forests. Adult frogs have been found on land some distance from creeks. To breed, the frog builds a nest in shallow running water in the gravel or leaf litter. It lays about 500–550 eggs, which have a sticky coating but no shell. The tadpoles develop in pools and take about a year to grow into adult frogs.  What are the characteristics that allow the southern barred frog to be classified as an amphibian? | |
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| Ideas relating to amphibian classification, based on the information given. For example: lays eggs in water; eggs have no shell; live on land as adults and in water as tadpoles; soft, slimy skin (1 mark each). | |
|  | /2 marks |
|  | Section III  Total marks:  /7 marks |