Question 1

| Question | Answers | Extra information | Mark |
|----------|------------------------------------|---|------|
| 01.1 | cytoplasm | If more than one box is ticked, award no marks. | 1 |
| 01.2 | leaf | If more than one box is ticked, award no marks. | 1 |
| 01.3 | cell wall, chloroplasts, vacuole | If more than one box is ticked, award no marks. | 1 |
| 01.4 | Any one from: | | 1 |
| | • controls the cell | Do not allow brain of the cell. | |
| | • contains the genetic information | Allow chromosomes or DNA for genetic information. | |
| 01.5 | Any two from: | | 2 |
| | • (it has) no nucleus | Accept circular DNA/DNA loop. | |
| | | Accept DNA free in the cytoplasm. | |
| | • (it has) plasmid(s) | | |
| | • (it has) a flagellum/flagella | | |
| | • (it has) no mitochondria | | |
| Total | | | 6 |

Question 2

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| Question | Answers | Extra information | Mark |
|----------|--|--|------|
| 02.1 | muscle cell \rightarrow cardiac muscle \rightarrow heart \rightarrow circulatory system | If more than one box is ticked, award no marks. | 1 |
| 02.2 | A | If more than one box is ticked, award no marks. | 1 |
| 02.3 | to release energy | Do not allow produce/ make/ create energy. | 1 |
| | for muscle contraction | Allow so the muscles can move. | 1 |
| 02.4 | red blood cell | | 1 |
| 02.5 | one muscle contracts | | 1 |
| | the other muscle relaxes | | 1 |
| Total | | | 7 |

Question 3



| Question | Answers | Extra information | Mark | |
|----------|--|-----------------------|-------|--|
| 03.1 | Level 3: There is a clear and detailed description of the steps, including the correct names for each part of the microscope. | | 5 - 6 | |
| | Level 2: Most of the steps are described. Some parts of the microscope may not be named. | | | |
| | Level 1: There are simple statements that give some steps of the method. | | | |
| | Two marks can be given for two correct statements. | | | |
| | No relevant content. | | | |
| | Indicative content: | | | |
| | place the blood sample/cells onto a slide place the slide on the stage centre the blood sample/cells/slide/specimen and fasten the stage clips | | | |
| | | | | |
| | | | | |
| | turn on light on the microscope or angle the mirror turn the objective lens to the lowest magnification look down the eyepiece lens use the focusing wheel(s) to bring the blood sample/cells/ specimen into focus turn the objective lens to a higher magnification | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| 03.2 | Any two from: | | 2 | |
| | support to hold the body upright | | | |
| | support to keep organs in place | | | |
| | protect important organs | Allow correctly named | | |
| | • movement | | | |
| 03.3 | ball and socket (joint) | | 1 | |

| 03.4 | the ligaments hold the bones together | | 1 |
|-------|---|--------------------------------------|----|
| | the cartilage protects/ cushions/covers the ends of the bones | | 1 |
| | the fluid keeps the cartilage slippery | | 1 |
| | to prevent (the ends of) the bones rubbing together | Allow to prevent damage to the bone. | 1 |
| Total | | | 13 |

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