**Exercise Chapter 2: Cell Structure and Cell Organisation Paper 2 Form 4**

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| *Name* | *:* |  |  | *Class* | *:* |  |

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| --- | --- |
| 1. | Diagram 1.1 shows an animal cell as observed under an electron microscope. |



Diagram 1.1

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| --- | --- | --- |
| (a) | (i) | Name the structures P and R. |
|  | P | : |  |
|  | R | : |  |
|  |  |  | [2 marks] |

|  |  |  |
| --- | --- | --- |
|  | (ii) | State **one** similarity between structures Q and R. |
|  |  |  |
|  |  |  |
|  |  | [1 mark] |

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|  | (iii) | Explain the importance of the similarity between structures Q and R that you have mentioned in 1(a)(ii). |
|  |  |  |
|  |  |  |
|  |  | [1 mark] |

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|  | (iv) | Explain one characteristic of structure R which enables it to carry out its function efficiently. |
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|  |  |  |
|  |  |  |
|  |  | [2 marks] |

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| --- | --- |
| (b) | Diagram 1.2 shows that animal cells undergo process X to form phagocytic white blood cells. |



Diagram 1.2

|  |  |  |
| --- | --- | --- |
|  | (i) | Name process X. |
|  |  |  |
|  |  | [1 mark] |

|  |  |  |
| --- | --- | --- |
|  | (ii) | State the type of defense mechanism in which the white blood cells in Diagram 1.2 fight against the pathogens. |
|  |  |  |
|  |  | [1 mark] |

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|  | (iii) | Based on your answer in 1(b)(ii), name one example of the white blood cell in Diagram 1.2 and explain how the white blood cells defend the body against bacterial invasion. |
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|  |  | [4 marks] |