

AQA, OCR, Edexcel

A Level

A Level Biology

Cell Structure Answers

Name:

M M E

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Total Marks: /33

Cell Structure

Answer	Marks
<p>1. A</p> <p>i. a. Golgi Body b. Mitochondria</p> <p>ii. - Mitochondria are involved in aerobic respiration - generates ATP - muscle contraction needs ATP</p> <p>iii.</p> <p>B <u>Any three from:</u> - Prokaryotic cells are smaller - Prokaryotic cells have smaller ribosomes, 70S (as opposed to 80S in eukaryotic cells) - Flagellum (prokaryotic cells) - Slime Capsule (prokaryotic cells) - No bound nucleus (prokaryotic cells) - Lysosome (eukaryotic cells) - Golgi body (eukaryotic cells) - Endoplasmic Reticulum (eukaryotic cells) - Mitochondria (eukaryotic cells)</p> <p>C <u>Any three from:</u> - Cell wall (plants) - Chloroplasts (plants) - Large vacuole (plants) - Lysosome (animals) - Rounded shape (animals) vs rectangular shape (plants)</p>	<p>2 marks</p> <p>3 marks</p> <p>3 marks</p> <p>3 marks</p>

<p>2.</p> <p>A <u>Any three from:</u> - Prokaryotes are more basic/primitive/have fewer organelles. - Smaller ribosomes - Mitochondria contain circular DNA - Chloroplasts have a double membrane - Mitochondria have a double membrane</p> <p>B i) <u>Any two from:</u> Single membrane Spherical shape Contains enzymes</p> <p>ii) Site of digestion of structures within cells (for waste removal)</p>	<p>3 marks</p> <p>2 marks</p> <p>1 mark</p>
<p>3.</p> <p>a) Free floating (in the cytoplasm)</p> <p>b) -Circular strand of DNA -Independent of/in addition to chromosomal DNA -Found in prokaryotes</p> <p>c) -Nuclear envelope -Nuclear Pore -Nucleolus -Chromosomes</p>	<p>1 mark</p> <p>3 marks</p> <p>3 marks</p>
<p>4.</p> <p>a) Presence of a cell wall</p>	<p>1 mark</p>

<p>b) -Remove foreign/harmful objects that have been inhaled into the trachea. -Reduce infections/harm to the body</p> <p>c) -Microvilli on the surface -Increased surface area for absorption of nutrients in digestion</p> <p>-Increased number of ribosomes -To synthesise enzymes required in digestion</p> <p>d) - a group of similar cells -that work together to carry out a particular function.</p> <p>e) Any two from: -Cardiac muscle tissue -Nervous tissue -Epithelium tissue -Fatty tissue -Fibrous tissue (valves)</p>	<p>2 marks</p> <p>4 marks</p> <p>2 marks</p>
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