Foundation Combined — only core Foundation content included.

Q1. State ONE difference between a eukaryotic and a prokaryotic cell.

[1 mark]

Q2. A student observes a cell with a large permanent vacuole, a cell wall and mitochondria, but no chloroplasts. State the cell type and give THREE reasons for your answer.

[3 marks]

Q3. Describe the function of THREE organelles found in both animal and plant cells.

[3 marks]

Q4. Describe THREE structural features of a bacterial cell that differ from a plant cell.

[3 marks]

Total: 10 marks

E: Cell Structure

Q1 (1 mark)

State ONE difference between a eukaryotic and a prokaryotic cell.

• Eukaryotic: membrane-bound nucleus; prokaryotic: no nucleus / circular DNA in cytoplasm [1] — accept: no membrane-bound organelles in prokaryotes

Q2 (3 marks)

A student observes a cell with a large permanent vacuole, a cell wall and mitochondria, bu…

• Plant cell [1]

• Has a cell wall (made of cellulose) [1]

• Has a permanent vacuole [1]

• Absence of chloroplasts indicates a non-photosynthetic plant cell (e.g. root cell) [1] — any 3 features with identification

Q3 (3 marks)

Describe the function of THREE organelles found in both animal and plant cells.

• Nucleus: contains DNA/chromosomes, controls cell activities [1]

• Mitochondria: site of aerobic respiration, produces ATP/energy [1]

• Ribosomes: site of protein synthesis [1]

Q4 (3 marks)

Describe THREE structural features of a bacterial cell that differ from a plant cell.

• Bacterial cell has no membrane-bound nucleus [1]

• Bacterial cell has circular DNA / may have plasmids [1]

• Bacterial cell has no chloroplasts or mitochondria (no membrane-bound organelles) [1]