

Question Number	Answer	Additional guidance	Mark
3(a)	<ol style="list-style-type: none"> 1. presence of { membrane bound / named membrane bound } organelle in eukaryotic cells / eq ; 2. presence of { plasmids / slime capsule / pili / eq} in prokaryotic cells ; 3. size of ribosomes i.e. larger in eukaryotic cells / 70S in prokaryotes and 80S in eukaryotes / eq ; 4. DNA in a nucleus in eukaryotic cells /eq ; 5. { DNA / chromosome } linear in eukaryotic cells and circular in prokaryotic cells / eq ; 6. relevant comment regarding cell walls e.g. cell walls always present in prokaryotic cells, only in some eukaryotic cells; 	<p>ACCEPT converse where appropriate</p> <ol style="list-style-type: none"> 1. ACCEPT reference to a named organelle such as mitochondria or nucleus present in eukaryotic cells and NOT in prokaryotic cells 2. ACCEPT reference to mesosomes 6. cell walls in prokaryotic cells contain{ peptidoglycan / murein} and in eukaryotic cells they contain {cellulose /chitin } 	(3)

Question Number	Answer	Additional guidance	Mark
3(b)	1. idea of molecular { differences / similarities } ; 2. in { DNA / RNA } ; 3. in proteins / proteomics ; 4. idea of (evolutionary) relationships between organisms ;	2. ACCEPT base sequences 3. ACCEPT amino acid sequences 4. ACCEPT idea of closely related species	(3)

Question Number	Answer	Additional guidance	Mark
3(c)(i)	1. idea of cell membrane being different ; 2. idea of different number of protein molecules ;	1. ACCEPT description of difference e.g. ether bonds, branched hydrocarbons 2. ACCEPT NOT same number, they have 10 protein molecules	(2)

Question Number	Answer	Additional guidance	Mark
3(c)(ii)	1. number of protein molecules is closer to Eukaryota than to Bacteria / eq ; 2. no peptidoglycan in cell wall ;		(2)