

Question Number	Answer	Additional Guidance	Mark
2(a)	<p><b>(QWC - Take into account quality of written communication when awarding the following points)</b></p> <ol style="list-style-type: none"> <li>1. Idea that in the rER insulin is folded e.g. forms { 3-D shape, secondary / tertiary structure } ;</li> <li>2. idea of insulin being packaged into (transport) vesicles by the rER ;</li> <li>3. vesicles { move to / fuse with / eq } the Golgi apparatus / vesicles (fuse to) form the Golgi apparatus ;</li> <li>4. idea of insulin being changed in Golgi apparatus ;</li> <li>5. idea of insulin being transferred in (secretory) vesicles from the Golgi apparatus to the cell (surface) membrane ;</li> <li>6. vesicles (containing insulin) fuse with cell (surface) membrane / exocytosis ;</li> </ol>	<p><b>QWC emphasis on logical sequence</b></p> <p>ACCEPT Golgi and protein instead of insulin</p> <p>4. IGNORE folded, processed ACCEPT modified, described change e.g. add / remove sugars, glycosides, carbohydrate</p>	(4)

Question Number	Answer	Mark
<b>2(b)(i)</b>	C unspecialised cells that can differentiate to give rise to almost any type of cell in the body, excluding totipotent cells ;	<b>(1)</b>

Question Number	Answer	Additional Guidance	Mark
<b>2(b)(ii)</b>	<ol style="list-style-type: none"> <li>1. idea of stimulus e.g. chemical ;</li> <li>2. idea that some genes are { active / switched on / expressed } ;</li> <li>3. idea of { transcription / mRNA produced } at active genes ;</li> <li>4. mRNA is { translated / used } to produce protein ;</li> <li>5. idea that this protein modifies cell OR idea that this protein determines { cell structure / function } ;</li> </ol>	2. IGNORE genes being 'turned on'	<b>(4)</b>