

Question Number	Answer	Additional Guidance	Mark
2(a)	<ol style="list-style-type: none"> 1. structural / functional / smallest / eq ; 2. unit of a organism / eq ; 	<p>1. ACCEPT examples e.g. contains organelles / cytoplasm /site of metabolic reactions</p> <p>2. IGNORE building block</p>	(2)

Question Number	Answer	Additional Guidance	Mark
2(b)(i)	<ol style="list-style-type: none"> 1. {synthesise / eq} the pepsinogen (in ribosomes); 2. folding protein into {secondary / tertiary / 3D } shape ; 3. idea of packaging (for transport to the Golgi apparatus) ; 	<p>2. and 3. ACCEPT protein / polypeptide as eq to pepsinogen</p>	(2)

Question Number	Answer	Additional Guidance	Mark
2(b)(ii)	<ol style="list-style-type: none"> 1. modification of the pepsinogen / eq ; 2. idea of packaging of the pepsinogen into a vesicle (for exocytosis) / eq ; 	<p>ACCEPT protein / polypeptide as eq to pepsinogen</p> <p>1. ACCEPT description eg addition of carbohydrate to protein</p>	(2)

Question Number	Answer	Additional Guidance	Mark
2(c)	<ol style="list-style-type: none"> 1. gastric stem cells can divide indefinitely but chief cells cannot / eq ; 2. idea that gastric stem cells can differentiate into other cell types but chief cells cannot / eq ; 3. gastric stem cells cannot produce pepsinogen but chief cells produce pepsinogen / eq ; 	<p>Answers must be comparative, accept the word "only" as making a statement comparative</p> <p>1. ACCEPT comparative answers in terms of Hayflick limit</p> <p>2. NOT answers that imply gastric stem cells are totipotent</p> <p>2. ACCEPT gastric stem cells are undifferentiated but chief cells are differentiated</p> <p>2. ACCEPT specialised for differentiated</p>	(2)