

Question Number	Answer	Additional guidance	Mark
7(c)	<p>An explanation that includes the following points:</p> <ul style="list-style-type: none"> • cell specialisation (1) • because gene (for insulin production) switched off in (other pancreas cells) due to {epigenetic modification / DNA methylation / histone modification} (1) • because gene (for insulin production) {active / switched on / expressed} in these (beta) cells (1) • therefore transcription of (active insulin) gene / (active) mRNA produced (1) • translation of (active) mRNA leads to synthesis of insulin protein (1) 	<p>Accept differential gene expression in these cells</p> <p>Accept transcription of insulin gene only occurs in beta cells Accept reverse argument for other pancreas cells</p> <p>Accept reverse argument for other pancreas cells</p>	(5)