OCR GCSE 21ST CENTURY BIOLOGY B · J257

BIOLOGY



MARK SCHEME

B4.5 SHOULD WE USE STEM CELLS TO TREAT DAMAGE AND DISEASE? (HIGHER)

SCORE	PERCENTAGE
/5	%

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Question			Answer/Indicative content	Marks	Guidance
1		i	Non specialised / undifferentiated; Can become any type of cell / specialised cell;	2	**Ignore** just 'other cells', just 'another cell' **Examiner' Comments** Most candidates performed well on this question, stating that stem cells were unspecialised but could become specialise to develop into any type of cell.
		ii	stem cells **injected into brain**; Stem cells turn **into** / grow **into** nerve cells; to produce dopamine;	3	**Ignore** stem cells grow / replicate / make / replace / repair nerve cells **Examiner' Comments** This question proved to be more difficult with most scoring only one or two of the three marks available. Many stated that stem cells could be made to specialise into nerve cells. Fewer went on to state that these nerve cells could then produce dopamine. The most common error was in thinking that specialised nerve cells could be transplanted into the brain with very few candidates understanding that the stem cells had to be placed into the brain before they began to specialise.
			Total	5	

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