

## GCSE Biology B (Twenty First Century Science)

J257/03 Breadth in Biology (Higher)

**Question Set 31** 

1	(a)		Describe how two parents who are at risk of passing on a genetic disease could use modern technology to have a child that is disease-free.	[2]
	(b)		Some diseases are referred to as sex-linked.	
			XMEN syndrome is a very rare genetic diseasewhich is carried on the X chromosome. It is a recessive disorder.	
		(i)	XMEN syndrome is caused by a gene mutation.	
			What is a gene mutation?	[1]
		(ii)	Is this disease likely to be seen more often in males or females?	
			Explain your answer.	
			Use your knowledge of sex determination in your answer.	
				[1]

## Total Marks for Question Set 31: 4



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