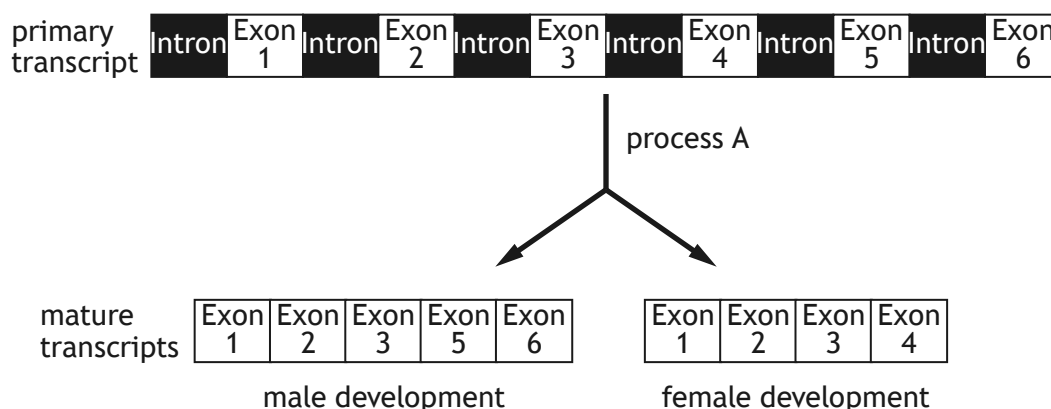


2. The doublesex gene in fruit flies determines whether they develop into males or females. The primary transcript of this gene can produce different mature transcripts as shown in the diagram.



- (a) (i) Name process A.

1

- (ii) State why the mature transcript shown below could not be produced.

1

Exon 2	Exon 1	Exon 3	Exon 4
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- (b) Splice site mutations can affect the development of fruit flies.

Describe the effect of a splice site mutation on a mature transcript and the effect on the protein synthesised.

2

Effect on mature transcript _____

Effect on protein _____



* X 8 0 7 7 6 0 1 0 4 *