

Question Number	Answer	Additional guidance	Mark
3(a)	<p>A description that includes five from the following points:</p> <ul style="list-style-type: none"> • (pollen) tube grows down (style) to {ovary / ovule / egg cell / micropyle} • (by releasing) {digestive / hydrolytic} enzymes (1) • the generative nucleus {divides / undergoes mitosis} • to form two {male / haploid} nuclei (1) • one {male / haploid} nucleus fertilises the egg cell (to form the zygote) (1) • one {male / haploid} nucleus fertilises the (two) polar nuclei to form the endosperm (nucleus) (1) 	<p>{Male / haploid} only needs to be stated once and then will apply for subsequent mp</p> <p>piece together mp1 Accept pollen tube transports {generative nucleus / male nuclei} down the style</p> <p>Accept male gamete / sperm nucleus</p> <p>Accept male gamete / sperm nucleus Accept female {nucleus / gamete} for egg cell</p> <p>Accept male gamete / sperm nucleus ignore polar nucleus (singular)</p>	(5)

Question Number	Answer	Additional guidance	Mark
3(b)	<p>An explanation that includes the following points:</p> <ul style="list-style-type: none"> • each male nucleus and egg cell nucleus (from silver trumpet trees) is genetically different (from each other) / (each ovule) may have been fertilised by {pollen / gamete} from (many) different trees (1) • due to crossing over of {alleles / DNA} (between chromatids) / mutation (1) • due to {independent / random} assortment (of chromosomes) (1) • in meiosis (1) 	<p>accept each male and female gamete is genetically different (from each other)</p> <p>accept description of crossing over forming {recombinant chromatids/ different combinations of alleles}</p>	(4)