

Question 28 (Answer: B)

- Meiosis halves the chromosome number, which is how gametes are made.
- So a diploid parent cell produces haploid daughter cells.
- Fertilisation then restores the diploid number by fusing two haploid nuclei.

Question 33 (Answer: C)

- Meiosis is a reduction division: it halves the chromosome number, so haploid cells are produced.
- It also shuffles the alleles, so it results in variation.
- Mitosis is the one that makes genetically identical cells, so that feature belongs to mitosis instead.

3(a)(i)	<u>pollen tube</u> ;
3(a)(ii)	<i>any three from:</i> pollen tube grows / AW (and enters ovule / ovary) ; pollen / male, nucleus travels down (pollen) tube / style ; (pollen and ovule) nuclei fuse ; <i>ref. to ovule</i> ;
3(b)(i)	<i>any three from:</i> 1 lack of (named) pollinators ; 2 <i>idea that</i> plant is isolated / AW ; 3 uses less, pollen / energy ; 4 increased chance of, fertilisation / pollination / offspring ; 5 <i>idea of</i> (less genetic diversity is) beneficial if plant is well-adapted to its environment ; 6 AVP ;

3(b)(ii)	<i>any three from:</i> 1 less / no, genetic variation ; 2 less likely to, survive / adapt to, changes in the environment ; 3 less resilience against disease / disease spreads more quickly ; 4 (increased risk of) extinction ; 5 <i>ref. to</i> likelihood of genetic disease ;
3(c)	<i>any two from:</i> mutation ; random, mating / pollination ; random fertilisation ; AVP ;
3(d)	<i>any four from:</i> 1 <i>ref. to</i> nuclear division ; 2 production of genetically identical cells ; 3 (copies of / replicated) chromosomes separate ; 4 chromosome number is maintained (in each daughter cell) / AW ; 5,6 named roles of mitosis ;;
3(e)	stem (cells) ;