KS3 Biology

Answers

Chapter 3 – Reproduction

Question	Answers	Extra information	Mark
1	ovaries release eggs – females pubic hair grows – both voices deepen – males periods start – females		1 1 1 1
2(a)	Labelled clockwise from the top: stigma anther petal ovary		 1 1 1 1
(b)	anther		1
(c)	by the wind/bees/insects		1
3(a)	ovulation – an egg cell is released from the ovary fertilisation – the nuclei of the sperm and egg join together implantation – the fertilised egg attaches to the lining of the uterus	1 mark for one correctly matched	2
(b)	uterus		1
4(a)	dispersed competition nutrients/light warmth		1 1 1 1

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(b)	Any two from: • wind • water • explosion • animals – eaten • animals – attached to fur		2
5(a)	28 days	Allow anything from 26 days to 31 days Do not accept an answer in weeks	1
(b)	period/uterus lining is lost ovulation/egg is released uterus lining thickens in readiness if egg is not fertilised, the lining breaks down and the cycle starts again	Do not accept uterus is lost	1 1 1 1
6(a)	scrotum		1
(b)	A		1
(c)	Any three from: • made in/released from the testis • through the sperm duct • through the urethra • out of the penis		3
7(a)i	mouse		1
(a)ii	7 weeks	Award 1 mark for chimp = 33 weeks	2
(a)iii	the bigger the animal, the longer the gestation period/pregnancy	Accept the smaller the animal, the shorter the gestation period/pregnancy	1
(b)	fluid sac/amniotic fluid acts as a shock absorber		1 1
8(a)	mass of seed		1

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(b)	Any one from: • type of seed • seed length • height seed dropped from • wind conditions	Accept any other appropriate response	1
(c)	Any four from: • drop seed from the same height • measure the time it takes to fall/distance travelled • repeat measurement for same seed • calculate mean (average) time taken to fall/distance travelled • repeat investigation for a seed with a different mass		4
9(a)	oxygen/glucose	Accept any other appropriate substance, such as antibodies	1
(b)	Any four from: • inside the placenta • the blood of the pregnant female and the blood of the foetus flow very close to each other • oxygen/nutrients/useful substances diffuse across the placenta from the pregnant female to the foetus • waste substances/carbon dioxide • diffuse from the foetus to the female		4

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(c)	Any four from: • the female's cervix relaxes • to allow the baby to leave the uterus • muscles in the wall of the uterus contract • pushing the baby out through the vagina • the placenta is then pushed out • as no longer needed/not needed by female		4
10(a)	transfer of pollen from the anther to the stigma		1 1
(b)	anthers/stamens hanging out of the flower makes it easier for plant to release pollen into the wind OR stigma hanging out of the flower makes it easier for plant to catch pollen OR no/very small petals no need to attract insects	1 mark for reason 1 mark for explanation	2
(c)	Any of the answers for 10b or non-visual features such as: • large amounts of pollen • increase chance of pollination • being successful as pollen not taken directly to next flower OR • very light/low mass pollen • easily picked up by the wind	1 mark for reason 1 mark for explanation	2
	SPACED LEARNING QUESTIONS		
11(a)	(light) microscope		1

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(b)	amoeba		1
(c)	arrow pointing to flagellum		1
12(a)	450	Accept 440 + 470 + 440 ÷ 3 for 1 mark	2
(b)	Student C	Accept ECF	1
(c)	Any two from: • biceps muscle is attached to the bone by a tendon • when biceps muscle contracts • it pulls on the bone (causing movement)		2