

Controlling Fertility MS

QUESTION 1

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	have identical genes / chromosomes / genetic material since asexual reproduction	accept mitosis	1
b)	mixture of genes / chromosomes / genetic material from two parents sexual reproduction / fusion of gametes		1 1
c)	public misunderstand technique as cloning or worried about large numbers of clones or moral / ethical / religious issues or unnatural process or scientists must not play god or technique may lead to embryo death		1
Total marks			5

QUESTION 2

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	inhibits FSH (production / secretion) (therefore) no eggs mature / released Or effect of FSH on ovary described	if no other marks gained allow 1 mark for no eggs produced references to LH are neutral	1 1
b)	Pros max 2marks from 4 marks e.g. max 2 ∧ large scale trial gave better results from 4 ●chose uneducated women so that if these women could use it correctly, women elsewhere would be able to cons max 3 e.g. max 3		2 2

	<p>used pill with high dose of hormone –from either so results not valid for general use of hormone or dangerous</p> <ul style="list-style-type: none"> ✗ side effects ignored ✗ women not told pill was experimental <p>/ pill might have side effects</p> <ul style="list-style-type: none"> ✗ no placebo ✗ should have tried a range of doses ✗ should have done pre-trial to check for side effects <p>conclusion 1 mark e.g. trials flawed therefore cons outweigh pros accept reverse e.g. trials flawed but pros outweigh cons</p>		1
Total marks			7

QUESTION 3

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	21		1
b)	1/26 or 8/208 or 4/104 or 2/52 or 3.8%		1
c)	under 35		1
d)	<p>any two from:</p> <ul style="list-style-type: none"> ✗ low success rate or not always successful ✗ high number of multiple births ✗ expensive ✗ stressful / emotional ✗ side effects 		2
Total marks			5

QUESTION 6

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)i)	A – pituitary B – ovary / ovaries	allow hypothalamus	1 1
a)ii)	in blood (stream)	accept in plasma ignore dissolved	1
b)i)	FSH and Luteinising Hormone (LH)		1
b)ii)	fertilised OR reference to sperm form embryos / ball of cells or cell division (embryo) inserted into mother's womb / uterus	allow (fertilised egg) is inserted into mother's womb / uterus	1 1 1
b)iii)	any one from: • multiple births lead to low birth weight • multiple births cause possible harm to mother / fetus / embryo / baby / miscarriages	allow premature ignore reference to cost / ethics / population	1
c)i)	any one from: • almost identical • both approximately 20%	allow S (slightly) more successful	1
c)ii)	larger numbers (in clinic R) (in 2007) results likely to be more repeatable (in 2008)	allow only 98 (in S) (compared to 1004 (in R)) allow more reliable do not accept more reproducible / accurate / precise	1 1
Total marks			11

QUESTION 7

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	A sperm B egg C fertilised egg D embryo		1 1 1 1
b)	insert into mother womb / uterus	ignore fertilise / check fertilisation / check viability	1 1
c)i)	one quarter		1
c)ii)	no / little chance of success over 42	the statement 'only 2 out of 53	1

	reference to table of only two women in the age bracket 40-42 years became pregnant	40-42 year old women became pregnant / had babies' gains 2 marks	1
c)iii)	so fewer twins / multiple births or multiple births more dangerous		1
Total marks			10