

Controlling Fertility 2

QUESTION 1

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	have identical genes / chromosomes / genetic material since asexual reproduction	accept mitosis	1 1
b)	mixture of genes / chromosomes / genetic material from two parents sexual reproduction / fusion of gametes	accept meiosis	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	do not allow mark for embryos lost	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. ✖ large scale trial gave better results •chose uneducated women so that if these women could use it correctly, women elsewhere would be able to cons max 3 marks from 4 marks e.g.		max 2 max 3

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

QUESTION 3

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)i)	ovary or ovaries		1
b)	hormone) implant		1
c)	do not have to remember to take		1
d)	does not involve hormone or it is a mechanical method	allow coil may be dislodged allow egg is fertilised / released allow not preventing egg fertilisation / release	1
e)	involves death of fertilised egg or (regard) fertilised egg as human or stops fertilised egg developing	allow embryo / baby for fertilised egg ignore against religion only allow fertilised egg is alive ignore side effects	1
f)i)	inhibit FSH (production) so no eggs mature / develop / are produced	allow inhibits LH allow (LH) stimulates egg release ignore progesterone	1 1
f)ii)	contains FSH which causes egg to mature / develop / be	allow contain LH allow (LH) stimulates egg release	1 1

	produced or in women whose FSH is low		
Total marks			9

QUESTION 4

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	any three from ✘ FSH used / given / injected ✘ LH used / given / injected ✘ FSH causes eggs to mature ✘ LH stimulates egg release	if oestrogen or progesterone used = max 2 if both oestrogen and progesterone used = max 1 ignore effects of oestrogen and progesterone	3
b)	max two pros for IVM / it from: ✘ cheaper ✘ less hormones used ✘ ovarian hyperstimulation or the syndrome less likely ✘ IVM treatment shorter con for IVM ✘ small risk of abnormal sex chromosomes / birth defects / baby cancer evaluation eg IVM better because less risk to mother outweighs small risk to baby or IVF better because no risk to baby and a small risk to mother	allow max two cons for IVF allow 'it's safer for the mother' ignore 'more risks' unqualified allow max one pro for IVF allow 'more risk to baby' ignore 'more risks' unqualified must include an appreciation that there are two sides to the argument	2 1 1
Total marks			7

QUESTION 5

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	costs less no / less equipment needed		1 1
b)	any two from: ⊖ lower success rate / only 19.7% success rate ⊖ not all cases can be treated Or only 50% of cases can be treated ⊖ embryo can't be seen until third day		2

Total marks			4
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QUESTION 6

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	egg(s) / egg cell(s) / ova		1
b)i)	any one from: <ul style="list-style-type: none"> • don't have to take (pill) every day • can't forget to take • more reliable • lasts 3 years / lasts longer • hormone level in blood more constant 	ignore faster ignore side effects ignore cost	1
b)ii)	any one from: <ul style="list-style-type: none"> • eg painful (to insert) / uncomfortable / causes rash • woman can't take it out • more difficult to stop treatment • needs to be removed if woman decides to become pregnant 	ignore cost ignore side effects unqualified allow have to wait three years to become pregnant	1
Total marks			3

QUESTION 7

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	inhibit FSH production so egg does not mature	ignore LH production ignore wrong hormone ignore egg production / egg release / egg development	1 1
b)	any three comparisons: eg <ul style="list-style-type: none"> • ease of insertion compared ie ring easily inserted by woman whereas implant needs professional or no damage to skin with ring • length of delivery compared eg 3 weeks for ring whereas 3 years for implant or delivery longer for implant or woman has to remember to insert ring whereas does not have to remember to insert implant	comparisons must be made ie two separate lists will gain no marks unless the lists are linked by eg whereas / however / on the other hand and the points are made in the same order in both lists ignore cost	3

	<ul style="list-style-type: none"> ●effectiveness compared eg 0.3 % failure with ring whereas nil for implant or implant more effective ●number giving up compared eg 4 % for ring whereas 2 % for implant or fewer women give up using implant <p>or</p> <p>ring might cause vaginal discomfort whereas implant may cause irregular menstrual bleeding</p> <p>reasoned conclusion (normally at the end)</p>		
Total marks			5

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