Controlling Fertility MS

QUESTION 1

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	have identical genes /	accept mitosis	1
	chromosomes /		
	genetic material		
	since asexual reproduction		
b)	mixture of genes /		1
	chromosomes / genetic material		
	from two parents		
	sexual reproduction / fusion of		1
	gametes		
c)	public misunderstand technique		1
	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		
Total marks			5

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	inhibits FSH (production /	if no other marks gained allow 1	1
	secretion)	mark for no eggs produced	
	(therefore) no eggs mature /		1
	released	references to LH are neutral	
	Or effect of FSH on ovary		
	described		
b)	Pros max 2marks from 4 marks		
	e.g. max 2		
	₹ large scale trial gave better		2
	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

	used pill with high dose of	
	hormone -from	
	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	1
	pros	
	accept reverse e.g. trials flawed	
	but pros	
	outweigh cons	
Total marks		7

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	21		1
b)	1/26 or 8/208 or 4/104 or 2/52 or		1
	3.8%		
c)	under 35		1
d)	any two from:		2
	₹ low success rate or not		
	always		
	successful		
	↑ high number of multiple		
	births		
	↑ expensive		
	₹ stressful / emotional		
	₹ side effects		
Total marks			5

QUESTION 4

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	FSH / follicle stimulating hormone	allow FHS	1
		either order	1
	LH / luteinizing hormone		
b)	any four from: •egg(s) collected from ovary •(eggs) mixed with sperm or fertilisation occurs •fertilised egg divides •embryo formed •(embryos) inserted into womb / uterus	allow eggs and sperm put into tube ignore references to vagina	4
	•FSH matures egg and LH releases		
	eggs		
Total marks			6

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	any three from: advantages of IUCD over pill eg can't forget to take it / have to take pill every day effect much longer than pill more effective in preventing pregnancy stops sperm entering uterus disadvantages of IUCD over pill eg pain / uncomfortable / risk of infection / may damage uterus prevents fertilised egg developing / 'embryo rights' needs replacement by doctor / nurse / professional or access to IUCD is more difficult than pill or IUCD is harder to come off than pill argued conclusion		3
Total marks			4

QUESTION 6

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

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

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