



## Controlling Fertility with Hormones

1 Some women find it difficult to conceive naturally. How could a low level of FSH account for this?

- FSH stimulates egg cells in the ovaries to develop. So low FSH levels mean that they won't mature

[ 1 mark ]

2 To help them conceive, women take FSH in a fertility drug. Which other hormone do they take and how does it help?

- LH, which stimulates ovulation (release of the egg from the ovary)

[ 1 mark ]

3 What does IVF stand for?

- In vitro fertilisation

[ 1 mark ]

4 Describe the stages involved in IVF treatment

- Women are given FSH & LH to stimulate egg to mature
- The eggs are taken from the ovary
- Then combined with sperm in a laboratory
- This may involve ICSI if the man has a low sperm count or weak sperm
- The fertilised egg is left in an incubator to develop into an embryo
- The embryo make be screened to check for genetic defects
- 1 or more healthy embryos are implanted into the uterus so they can develop into a foetus

[ 6 marks ]

5 What is ICSI (intra-cytoplasmic sperm injection), and why it it used?

- It is the injection of sperm into an egg cell with a very tiny needle
- This is sometimes required if the man has low sperm count and weak sperm that could not penetrate the egg cell without help

[ 2 marks ]

6 Give two possible emotional impacts of IVF

- Stress of the whole ordeal // Strain on relationship // Hormones may affect emotions

[ 2 marks ]

7 Give two possible side effects of IVF on a women physical health

- Abdominal pain // Vomiting etc

[ 2 marks ]

**8** Why does IVF lead to increased risk of multiple births? Discuss why this could be a problem

- Because multiple embryos are often implanted into the uterus
- This has a higher risk of complications like stillbirth or miscarriage
- Many couple find it difficult to deal with multiple babies at once

*[ 3 marks ]*

**9** Discuss the ethical concerns of IVF

- As the embryos can be screened for defects, some may be destroyed if they're not healthy
- It could lead to 'designer babies' where parents choose embryos based on desired traits, like hair colour
- Some people think the whole process is unnatural and therefore wrong

*[ 3 marks ]*

*[ Total 21 marks ]*