OCR GCSE 21ST CENTURY BIOLOGY B · J257

BIOLOGY



EXAM QUESTION PACK

B5.5 WHAT ROLE DO HORMONES PLAY IN HUMAN REPRODUCTION? (HIGHER)

SCORE	PERCENTAGE
/12	%

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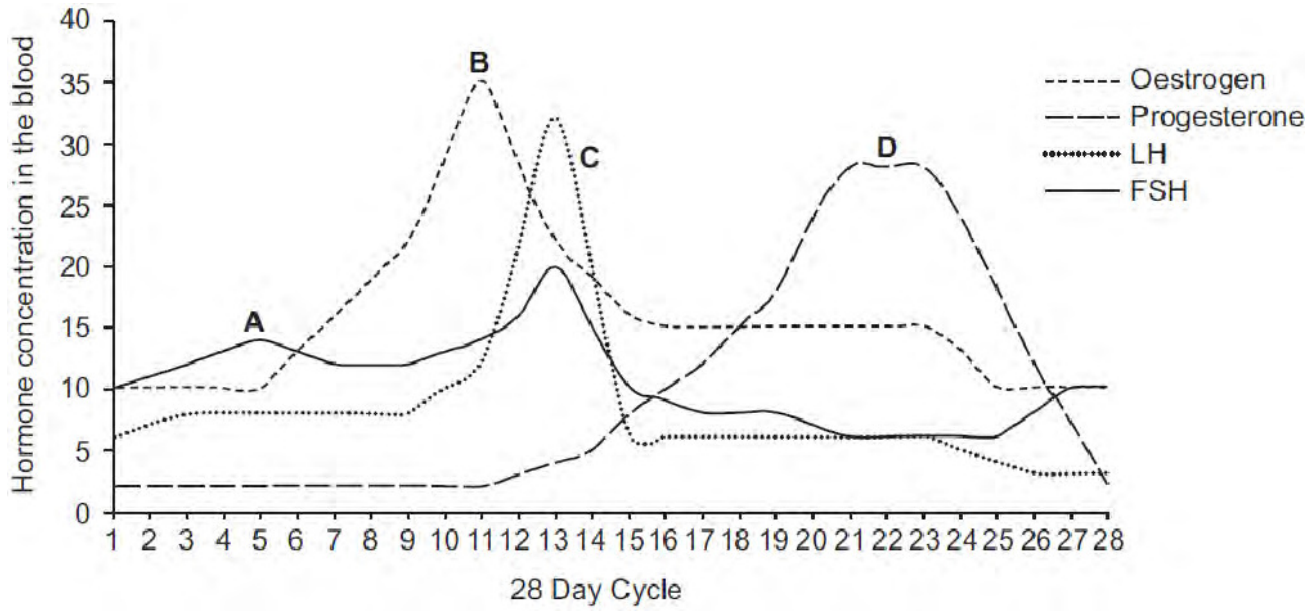
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1(a). The human menstrual cycle is controlled by hormones.

The diagram below shows the concentration of the four hormones involved in the menstrual cycle.



Which letter, **A**, **B**, **C** or **D**, shows when ovulation occurs?

---------- [1]

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(b). Some couples are unable to conceive a child naturally. In-vitro fertilisation (IVF) is a technique that can be used to help these couples.

In IVF, a woman's ovaries are stimulated to produce a greater number of eggs than she would during a normal monthly cycle.

Which hormone could be used to achieve this?

Put a tick (✓) in the correct box.

Oestrogen	☐
Progesterone	☐
LH	☐
FSH	☐

[1]

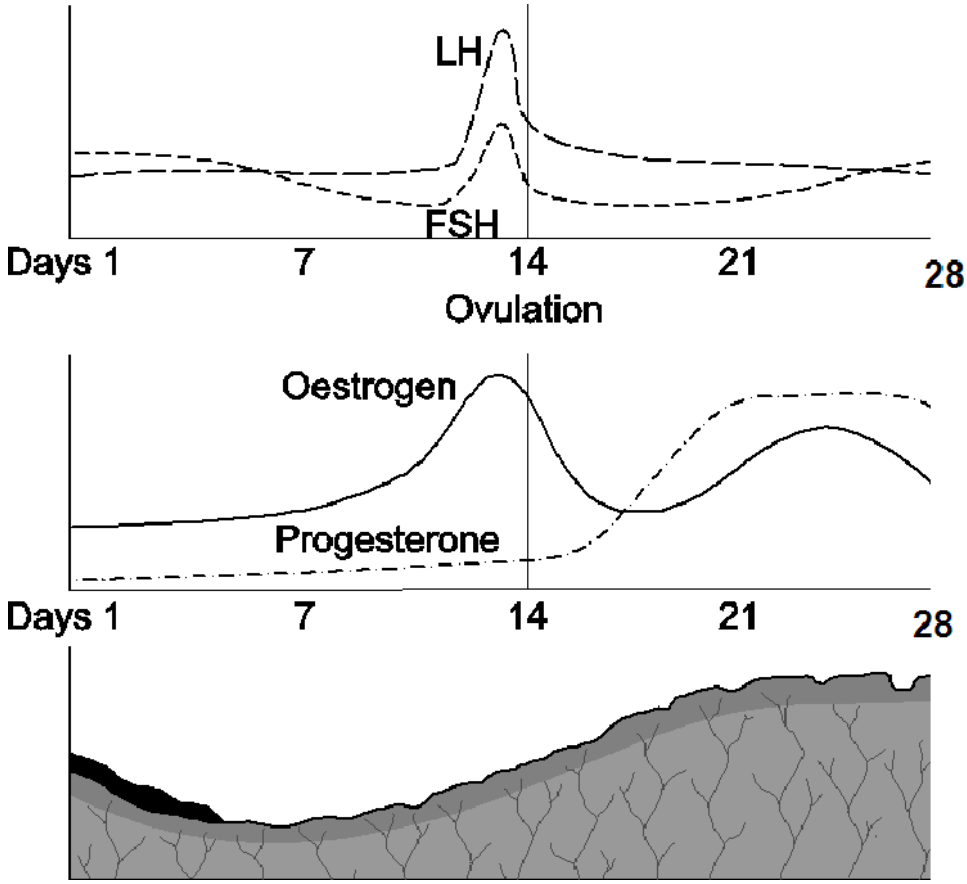
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2(a). The menstrual cycle is controlled by four hormones.

These hormones have an effect on target organs such as the ovaries and the uterus.

The graphs and diagram below show the hormone levels of the four hormones and the relative thickness of the uterus lining during a typical 28 day menstrual cycle.



* Use the graphs and diagram above and your own knowledge to explain the changes that occur to prepare a woman's body to receive a fertilised egg and then allow it to grow and develop.

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[6]

(b). Finn and Anna are recently married and wish to delay starting a family.

Consider the data in the table below about the effectiveness of various methods of contraception.

Form of contraception	Percentage of pregnancies that occurred despite using contraception
Birth control pill	7.6
Condom	13.9
Hormone implants	0.2
Hormone injections	3.1
Diaphragm	12.1

Suggest the most appropriate method of contraception for Finn and Anna to use by evaluating the data above.

Give reasons for your answer.

[4]

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END OF QUESTION PAPER

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