

Sex hormones in humans: practice questions

6 questions • 18 marks • mark scheme at the back

For Cambridge IGCSE Biology 0610 (and 0970, which has the same content). **Supplement** is Extended content, only examined on Papers 2 and 4.

Name

Total / 18

1 Which row shows where a sex hormone is made and one effect of it at puberty? [1 mark]

- A. ☐ Testosterone; ovaries; breasts develop
B. ☐ Testosterone; testes; voice deepens
C. ☐ Oestrogen; testes; hips widen
D. ☐ Oestrogen; ovaries; facial hair grows

2 (a) Name the hormone that causes secondary sexual characteristics to develop in boys. [1] [4 marks]
(b) State two secondary sexual characteristics that develop in boys at puberty. [2] (c) State one secondary sexual characteristic that develops in girls at puberty. [1]

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3 The menstrual cycle lasts about 28 days. (a) Describe what happens to the lining of the uterus during days 1 to 5. [1] (b) Describe the change in the lining of the uterus between day 5 and day 14. [1] (c) Describe the change that happens in an ovary at about day 14. [1] (d) Describe what happens to the lining of the uterus from day 14 to day 28 if the woman does not become pregnant. [1] [4 marks]

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Mark scheme

One mark for each point unless a maximum is given. Words in brackets are not needed for the mark.

1. [1]

B B (testosterone is made in the testes and deepens the voice) (1)

2. [4]

- (a) testosterone (1)
- (b) one from: facial hair; pubic hair; underarm hair; voice deepens; muscles develop; penis and testes grow (1)
- (b) a second different one from the same list (1)
- (c) any one from: breasts develop; pubic hair; underarm hair; hips widen; menstrual cycle starts (1)

3. [4]

- (a) breaks down and is lost through the vagina (with blood) (1)
- (b) repaired and becomes thicker (1)
- (c) an egg cell is released (ovulation) (1)
- (d) it stays thick, then breaks down at the end of the cycle (1) allow it is maintained, then lost

4. [1] **Supplement**

B B (LH) (1)

5. [4] **Supplement**

- (a) ovary (1) allow corpus luteum
- (b) oestrogen (1)
- (b) repairs / thickens the uterus lining (1)
- (c) the woman is not pregnant / no fertilisation or implantation, so the ovary (corpus luteum) stops making progesterone (1) ignore 'the uterus lining breaks down' (an effect, not a cause)

6. [4] **Supplement**

- (a) progesterone (1)
- (a) oestrogen (1)
- (b) maintains the (thickness of the) uterus lining (1)
- (b) inhibits FSH and LH so no more egg cells are matured or released (1)