



EXAM PAPERS PRACTICE

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Practice questions created by actual examiners and assessment experts

Detailed mark scheme

Suitable for all boards

Designed to test your ability and thoroughly prepare you

Level: IGCSE Oxford AQA Biology (9201)

Subject: Biology

Topic: IGCSE AQA Biology

Type: Mark Schemes

2002



1583

To be used by all students preparing for IGCSE Oxford AQA Biology (9201)
Students of other Boards may also find this useful

Biology

IGCSE AQA

Key skills

Mark schemes

1.

(a) to allow implantation of the embryo

1

(b) oestrogen

1

(c) 13 / 14 / 15 / 16

allow any number in range 13 to 16

allow any range within these values e.g. 14–16

1

(d)



extra line from a method cancels the mark

1

1

1

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(e) more reliable than diaphragm / spermicidal cream

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allow fewer pregnancies than diaphragm / spermicidal cream

1

low chance of pregnancy

allow only 1 more pregnancy than the pill (per 100 women per year)

allow almost as good as the pill

allow reference to one named example

1



no side effects

allow easy to get / buy

allow easy to use

allow prevent / reduce spread of STDs / gonorrhoea / HIV

ignore cost

1

[9]

2.

(a) pancreas

1

(b) liver 1

glycogen

in this order

1

(c) would be digested / broken down (by enzymes / protease / pepsin / acid or to amino acids)

allow denatured (by acid)

1

(d) use of 14.2 and 6.8

1

7.4

*allow an answer of 7.2 or 7.3 (using 14.1 and / or 6.9)
for 1 mark*

1



(e) any **one** from:

- (person A's) results are higher
ignore A peaks at a higher level than B
- (A) increases for a longer time **or** peaks later
- (A) takes longer to decrease **or** takes longer to return to normal
allow other correct comparisons
allow a description using pairs of figures from graph at a given time

1

allow converse comparisons with person B as the subject

(f) a negative correlation

1

(g) less carbohydrate / sugar / fat in diet

allow go on a diet
allow eat less
allow balanced / healthy diet

or

lose weight **or** maintain a healthy weight

ignore diet unqualified

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1

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(more) exercise

allow examples of exercise

1

[10]

3.

(a) **A**

1

(b) **E**

1



- (c) 28
allow 27–29 1
- (d) progesterone 1
- (e) any **two** from:
• inhibits FSH production / release
• prevents egg maturation
allow prevents egg growth
• prevents ovulation
allow prevents egg release
ignore prevents egg production 2
- (f) oestrogen 1
testosterone 1
allow in this order only 1

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[8]

4.

- (a) any **three** from:
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• a (chemical) messenger
or
an organic substance
allow correct named example – e.g. protein / modified amino acid / catecholamine / steroid
• made by the endocrine system / an endocrine gland / endocrine organ
allow made by / released from a (ductless) gland
• affects (a) specific / target organ(s) / tissue(s)
• released into the blood
allow carried by the blood 3
- (b) insulin **and** glucagon
both required for 1 mark correct spelling only for glucagon 1



(c) Level 2 (3-4 marks):

Relevant points (reasons / causes) are identified, given in detail and logically linked to form a clear account.

Level 1 (1-2 marks):

Relevant points (reasons / causes) are identified, and there are attempts at logically linking. The resulting account is not fully clear.

No relevant content (0 marks)

Indicative content

- (0–0.5 h:) glucose from meal enters blood
or
increase in blood glucose (to 6.5 mmol / dm³)
- glucose detected by pancreas
- pancreas secretes insulin
- (insulin causes) glucose to move (out of blood) into cells / liver
- liver converts glucose to glycogen
- causing a fall in blood glucose (after 0.5h)
- low blood glucose (< 5.0 mmol / dm³) detected by pancreas
- pancreas releases glucagon
- liver converts glycogen to glucose (which enters blood)
- blood glucose rises (after 1 h or to 5.2 mmol / dm³ (at 1.5 h))

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[8]

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5.

(a) **A** – pituitary

1

B – adrenal

1

(b) ovary

1

(c) diaphragm

allow phonetic spelling

1

(d) condom

1



(e) **Level 2 (3–4 marks):**

A detailed and coherent evaluation is provided which considers a range of advantages and disadvantages and comes to a conclusion consistent with the reasoning.

Level 1 (1–2 marks):

An attempt to describe the advantages and disadvantages is made, which may not come to a conclusion. The logic may be inconsistent at times.

0 marks:

No relevant content.

Indicative content

advantages of the plastic IUD:

- is effective for longer than the copper IUD
- does not need to be replaced as often as the copper IUD
- although the pain of periods are more severe, the pain with the copper IUD is likely to be worse
- can reduce the bleeding during a period
- most of the possible side effects are not serious, eg feeling sick, acne and headaches.

disadvantages of the plastic IUD:

- needs to be implanted for a period of time before it is effective ie not emergency contraception
- can make the pain of period more severe
- can cause more side effects than the copper IUD
- can cause some more severe side effects such as cysts on the ovaries

an understanding that the side effects are only possible and may not necessarily occur

additional examiner guidance:

- pupils should add value to the points in the table and should not just be copies verbatim
- credit can also be given for other correct advantages and disadvantages from the candidates' own knowledge and understanding
- allow converse points if clearly made



6.	(a) (i) follicle stimulating hormone / FSH	1
	(ii) oestrogen	1
	(b) (i) any one from: <ul style="list-style-type: none">to help them have a baby / get pregnant <i>ignore to make them fertile</i>to stimulate egg production / release / maturationown levels of FSH / LH / hormone (too) low <i>allow to increase hormone / FSH / LH levels</i> <i>do not allow to increase oestrogen levels</i>	1
	(ii) through the bloodstream	1
(c) oestrogen		1
	progesterone	1
		1
		[6]