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NZQA
NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

For Supervisor's use only

Level 1 Human Biology, 2007

90179 Describe functioning of the human reproductive system

Credits: Three
9.30 am Friday 23 November 2007

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should answer ALL the questions in this booklet.

If you need more space for any answer, use the page(s) provided at the back of this booklet and clearly number the question.

Check that this booklet has pages 2–7 in the correct order and that none of these pages is blank.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

For Assessor's use only	**Achievement Criteria**		
Achievement	**Achievement with Merit**	**Achievement with Excellence**
Describe functioning of the human reproductive system. ☐	Explain functioning of the human reproductive system. ☐	Discuss functioning of the human reproductive system. ☐
Overall Level of Performance ☐		

You are advised to spend 35 minutes answering the questions in this booklet.

Assessor's use only

QUESTION ONE

Testosterone is an important male hormone.

(a) Describe where and when testosterone is produced.

Where: _____

When: _____

(b) Describe TWO roles of testosterone in the male body.

(1) _____

_____

(2) _____

_____

(c) Explain how **blocked** sperm ducts **affect** sperm and can cause infertility in men.

_____

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(d) Semen contains secretions from the prostate gland and seminal vesicles. These secretions help the sperm to function when they enter a woman's reproductive system.

Assessor's use only

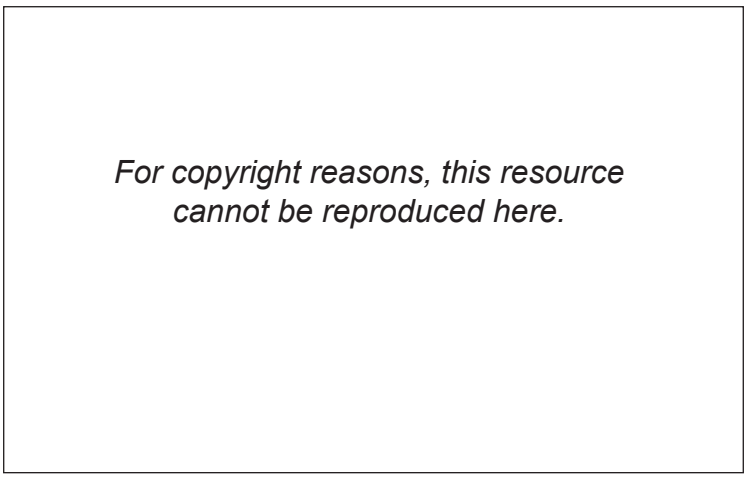
Discuss how these **secretions** help the sperm function. In your answer consider:

- sperm energy requirements
- sperm mobility
- vaginal pH.

QUESTION TWO

Assessor's use only

This diagram shows the stages of ovulation, fertilisation and implantation.



Adapted from McIlwaine & Napier, *GCSE Biology for CCEA* (London: Hodder & Stoughton, 2003), p 159.

(a) From the above diagram:

(i) Describe what is happening at ovulation.

(ii) Describe what is happening at fertilisation.

(b) Explain **why** implantation is important for the young embryo.

(c) Implantation affects female sex hormone levels, which in turn affect the menstrual cycle and the endometrium.

Assessor's use only

Discuss the **effect of implantation** on the female sex hormones, the menstrual cycle, and the endometrium.

Note that Question Three is on the next page.

QUESTION THREE

Assessor's use only

(a) Describe TWO features of the placenta that allow the rapid exchange of substances between the mother and the foetus.

(1) _____

_____

(2) _____

_____

(b) Only some substances can pass across the placenta **between** the mother and the foetus.

(i) Explain why ONE **named** substance **CANNOT** pass across the placenta.

_____

_____

_____

_____

(ii) Explain why ONE **named** substance **CAN** pass across the placenta.

_____

_____

_____

_____

Extra paper for continuation of answers if required.
Clearly number the question.

Assessor's use only

Question number	