



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

**THE HUMAN BODY AND MIND
NQF LEVEL 2**

(9020072)

**18 November 2019 (Y-Paper)
13:00–15:00**

This question paper consists of 7 pages.

TIME: 2 HOURS MARKS: 150

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
 2. Read ALL the questions carefully.
 3. Number the answers according to the numbering system used in this question paper.
 4. Start each section on a NEW page.
 5. Use only a pen with BLUE or BLACK ink.
 6. Write neatly and legibly.
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QUESTION 1

1.1 Define each of the following terms:

1.1.1 Anatomy

1.1.2 Cell 

(2 × 2) (4)

1.2 List the FOUR features that are common to most cells.

(4)

1.3 What are the functions of the following cells?

1.3.1 Squamous epithelial cell

1.3.2 Muscle cell 

1.3.3 Red blood cell

1.3.4 White blood cell

(4 × 2) (8)

1.4 Identify the FOUR types of tissue found in the human body.

(4)

1.5 Draw a human body cell, depicting the main features of a generalised cell.

(5)

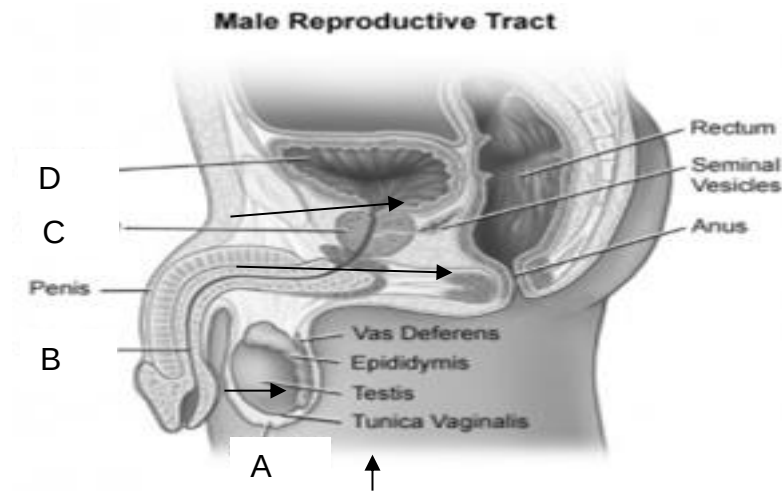
1.6 Discuss the TWO types of cells. 

(5)

[30]

QUESTION 2

2.1 Study the image in FIGURE 1 below and answer the questions.



[Source: [br.depositphotos.com](https://www.br.depositphotos.com)]

FIGURE 1

- 2.1.1 Label A to D. ❤️ (4)
- 2.1.2 State the primary sex organs of the male reproductive system. (2)
- 2.1.3 When does sperm production begin? (2)
- 2.1.4 Identify the main purpose of this system. ❤️ (1)
- 2.1.5 Name the main hormone that is produced in the testes. (2)
- 2.1.6 Draw a flow chart, explaining the journey of the sperms from production to ejaculation. (7)
- 2.2 For which TWO functions is the female reproductive system responsible? (2)
- 2.3 Based on your knowledge of female hormones, answer the following questions:
- 2.3.1 State the names of the TWO female hormones. (2)
- 2.3.2 Where are these hormones produced? ❤️ (1)
- 2.3.3 What are these hormones responsible for? (4)
- 2.4 Describe the term *mammary glands*. (3)

[30]

QUESTION 3

- 3.1 Based on your knowledge of the circulatory system, answer the following questions:
- 3.1.1 Give the name of this system. ❤️ (2)
 - 3.1.2 Describe what the lymphatic system consists of. (3)
 - 3.1.3 Discuss the layers of the walls of the heart. (6)
 - 3.1.4 Tabulate the differences between blood and lymph. (6)
 - 3.1.5 Name FOUR substances that are transported by blood. (4)
 - 3.1.6 Mention any FOUR main blood vessels of the cardiovascular system. ❤️ (4)
- 3.2 Identify any FIVE parts of the human brain. (5)
- [30]**

QUESTION 4

- 4.1 One of the basic goals of psychology is to be able to predict behaviour. Explain how psychologists would try and predict behaviour. (2)
- 4.2 According to Sigmund Freud, our personality has three components. Name and describe these THREE components. (3 × 2) (6)
- 4.3 Study the image in FIGURE 2 below and answer the questions.

**FIGURE 2**[Source: *faithactivators.com*]

- 4.3.1 Decide if the image above is an example of self-concept, self-awareness or self-esteem. ❤️ (2)

4.3.2 Explain THREE reasons for your answer to QUESTION 4.3.1. (3 × 2) (6)

4.4 Choose a term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–L) next to the question number (4.4.1–4.4.10) in the ANSWER BOOK.

COLUMN A		COLUMN B	
4.4.1	Situated within the nucleus	A	cilia
4.4.2	Membrane boundary of a living cell	B	cytoplasm
4.4.3	Tiny, hair-like organelles	C	nucleolus
4.4.4	Large organelle within the cell	D	flagella 
4.4.5	Organelle where protein is made	E	endoplasmic reticulum
4.4.6	Jelly-like substance inside a cell	F	cell nucleus
4.4.7	Network of internal membranes that are found in the cytoplasm	G	rough ER
4.4.8	Produces lysosomes 	H	ribosomes
4.4.9	Contains digestive enzymes	I	Golgi complex
4.4.10	Whip-like tail of sperm cells	J	lysosomes
		K	plasma membrane
		L	centrioles

(10 × 1) (10)

4.5 List the conditions that could result in the early death of cells. (4)
[30]

QUESTION 5

5.1 Consider the knowledge of anatomy used when assessing a patient in an emergency situation and answer the questions.

5.1.1 What TWO things should first be established once a first aider arrives at an emergency situation?  (2)

5.1.2 How does one establish if a person is breathing or not? (3)

5.1.3 List THREE pulse sites found on the human body. (3)

5.1.4 What does the secondary assessment involve? (2)

- 5.1.5 Name any FIVE observations that can be made while doing the secondary assessments. (5)
- 5.2 Consider your knowledge of anatomy that can be used during the rehabilitation process and answer the questions.
- 5.2.1 On what does rehabilitation focus?  (2)
- 5.2.2 What may be the cause of someone having a stroke? (3)
- 5.2.3 Mention the joint movements of the hand that should be done if someone's hand was affected after suffering from a stroke. (5)
- 5.2.4 Indicate the role of the health-care worker.  (2)
- 5.2.5 List THREE instances in which one's hands must be washed. (3)
- [30]**

TOTAL: 150