higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

THE HUMAN BODY AND MIND
NQF LEVEL 2

(9020072)

27 February 2018 (X-Paper)
09:00–12:00

This question paper consists of 8 pages.

NCV

TIME: 3 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. Write neatly and legibly.

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QUESTION 1

1.1 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to the question number (1.1.1–1.1.5) in the ANSWER BOOK.

1.1.1 The human body cells have different shapes and sizes.

1.1.2 The plasma membrane is NOT part of the generalised cell.

1.1.3 The dermis is the first layer of the skin.

1.1.4 The brain is situated in the cranial cavity.

1.1.5 Sensory nerves transmit impulses to the brain.

(5 × 1) (5)

1.2 Define the term S*upine Position.* (2)

1.3 Where in the body is nervous tissue found? (3)

1.4 Name SIX types of eukaryotic cells. (6)

1.5 Name FOUR parts of a generalised cell. (4)

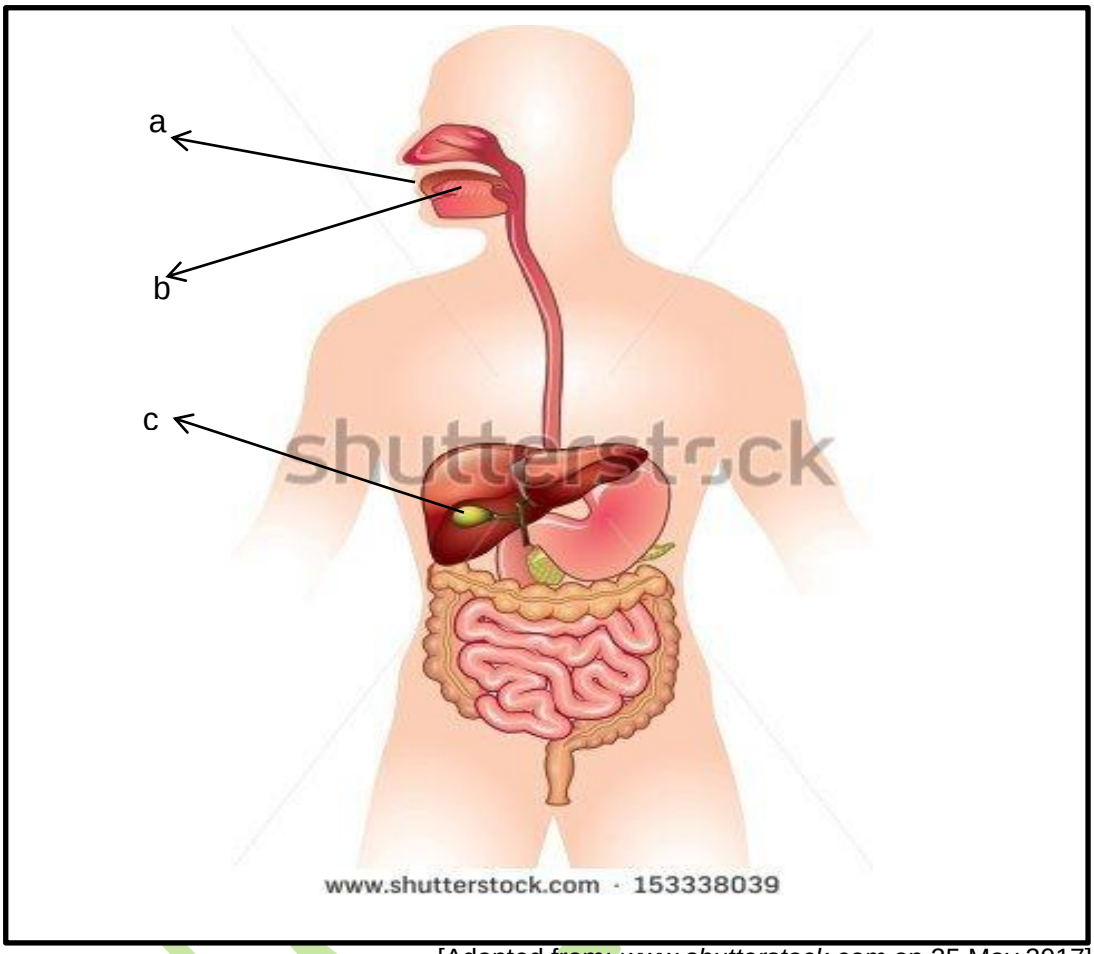
1.6 State the different phases in the lifecycle of a human cell in the correct order and give ONE fact about each phase. (5 × 2) (10)

[30]

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QUESTION 2

2.1 Study the figure below and answer the questions:



[Adapted from: *www.shutterstock.com* on 25 May 2017]

2.1.1 Name the THREE accessory organs of digestion indicated in the picture above. Write only the answer next to the letter (a–c) in the ANSWER BOOK. (3)

2.1.2 Name EIGHT organs of digestion in the correct order from ingestion to elimination. (8)

2.1.3 How does the liver assist with the digestion of food? (4)

2.1.4 Where does most digestion take place? (1)

2.1.5 What is the gastrointestinal system also called? (1)

2.1.6 Distinguish between mechanical and chemical digestion. (6)

2.1.7 What role does the tongue play during digestion? (2)

2.2 Why is it important to chew food into smaller pieces? (5)

[30]

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QUESTION 3

3.1 Choose a medical term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–G) next to the question number (3.1.1–3.1.5) in the ANSWER BOOK.

COLUMN A		COLUMN B	
3.1.1	Produces sweat to cool down the body	A	Pacinian corpuscles
3.1.2	Sensitive to touch and pain	B	sweat glands
3.1.3	Responds to vibrations and deep pressure	C	pinna
3.1.4	Found mainly in the mucous membrane	D	free nerve endings
3.1.5	Sensitive to heat	E	Krause's end bulbs
		F	cochlea
		G	Ruffini's corpusles

(5 × 1) (5)

3.2 Read the extract below and answer the questions.

Mrs May is 75 years old. She lives alone with her two cats, Smokey and Lilly. Someone broke into Mrs May's apartment while she was there, but she did not hear the person entering her apartment.

She has since gone for an ear examination as she realised she does not have the same hearing ability as she once had.

3.2.1 Which part of the ear converts sound waves to nerve impulses? (1)

3.2.2 Which part of the ear picks up sound waves? (1)

3.2.3 Suggest ways in which Mrs May can improve her safety. (5)

3.2.4 Name the THREE bones situated in the middle ear. (3)

3.3 Copy and complete the following table in your ANSWER BOOK.

SENSE	SENSORY ORGAN	CRANIAL NERVES
Sight		
Smell		
Taste		
Touch		
Hearing		

(10)

3.4 Discuss the challenges of not being able to hear. (5)

[30]

QUESTION 4

4.1 Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (4.1.1–4.1.5) in the ANSWER BOOK

4.1.1 The second layer of the skin is the ...

A dermis.
B hypodermis.
C hyperdermis.
D epidermis.

4.1.2 The forebrain is also known as the ...

A pons.
B medulla.
C cerebrum.
D cerebellum.

4.1.3 The anatomical name for fingers is the ... area.

A inguinal
B digital
C femoral
D tarsal

4.1.4 The … nerves cause the contraction of the smooth muscles.

A parasympathetic
B sensory
C sympathetic
D motor

4.1.5 The normal human body temperature is ...

A 37 ^{o}C
B 35 ^{o}C
C 25 ^{o}C
D 45 ^{o}C

(5 × 1) (5)

4.2 Name TWO functions of the lymph nodes. (2)

4.3 Name the THREE layers of the heart and state their positioning. (3 × 2) (6)

4.4 Name TWO features of the heart. (2)

4.5 4.5.1 Mr Brown has fallen and is unresponsive.

As a healthcare worker, what are the first things that you would do when approaching him? (2)

4.5.2 Name TWO sites on the human body to check for a pulse. (2)

4.5.3 Explain why you cannot use your thumb to feel a pulse. (2)

4.5.4 What causes a stroke? (2)

4.5.5 Name the FIVE hand movements that will assist a patient who had a stroke to improve his/her hand movements. (5)

4.5.6 What is the role of the healthcare worker during the rehabilitation process? (2)

[30]

QUESTION 5

5.1 Choose the correct word in brackets in the following sentences. Write only the word next to the question number (5.1.1–5.1.5) in the ANSWER BOOK.

5.1.1 The (affect/effect) is an indication of a reaction to a stimulus.

5.1.2 The reaction or response to a stimulus is known as (behaviour/attachment).

5.1.3 The way in which information is processed and problems are solved, is known as (mourning/cognition).

5.1.4 As children grow, their knowledge (expands/restricts).

5.1.5 People receive information from the environment from their (four/five) senses.

(5 × 1) (5)

5.2 Name the FIVE basic goals of psychology. (5)

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5.3 Define the following terms:

5.3.1 Self-awareness

5.3.2 Self-esteem

5.3.3 Psychology

5.3.4 Self-concept

(4 × 2) (8)

5.4 Name and briefly describe Freud's THREE personality components. (3 × 2) (6)

5.5 Name TWO of Freud's psychosexual stages. (2)

5.6 How and why do psychologists try to predict behaviour? (4)

[30]

TOTAL: 150

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