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LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

CAPRICORN SOUTH DISTRICT

NATURAL SCIENCES

GRADE 09

TERM 1 CONTROLLED TEST

DATE: 13 MARCH 2023

MARKS: 60

DURATION: 1 HOUR 30 MINUTES

INSTRUCTIONS:

1. This question paper consists of TWO sections: SECTION A and SECTION B.
2. Answer ALL questions.
3. Write ALL The answers in your answer book.
4. Number the answers correctly according to the numbers used in this question paper.
5. Present your answers according the the instructions of each question.
6. ALL drawings should be done in pencil and labelled in blue ink.
7. Only draw diagrams or flow charts when asked to do so.
8. Write neatly and legibly.

This question paper consists of seven pages including the cover page

SECTION A**QUESTION 1****1.1. MULTIPLE CHOICE**

Various options are provided as possible answers to the following questions. Choose the correct answer and write only the letter (A – D) next to the question number (1.1. – 1.6.), for example 1.1. B.

1.1.1 Which of the following comparisons between a typical plant and animal cell is incorrect?

	PLANT CELL	ANIMAL CELL
A	Large vacuole	Small vacuole
B	Chloroplasts	No chloroplasts
C	Cell wall with cellulose	No cell wall
D	Cell membrane	No cell membrane

(1)

1.1.2 The component in a plant cell which can be considered as a living is.....

- A. Cytoplasm
- B. Cell wall
- C. Vacuole
- D. Cell sap

(1)

1.1.3 Food moves through the digestive system in the following sequence:

- A. Oesophagus – stomach—liver—rectum
- B. Stomach—colon—small intestine—rectum
- C. Small intestine—rectum-- colon—oesophagus
- D. Oesophagus—stomach—small intestine—colon

(1)

1.1.4 Female sex organ where eggs cells are produced.

- A. Ovary
- B. Testis
- C. Ovum
- D. Uterus

(1)

1.1.5. In humans' gaseous exchange takes place in the _____

- A. Trachea
- B. Diaphragm
- C. Pulmonary vein
- D. Alveoli (1)

1.1.6 Which one is NOT an excretory organ.

- A. Lungs
- B. Bladder
- C. Skin
- D. Kidney (1)

[6]

1.2. TERMINOLOGY

Give the correct biological term for each of the following descriptions. Write only the term next to the question number (1.2.1 - 1.2.5).

- 1.2.1. The follicle bursting open to release an ovum into the fallopian tube. (1)
- 1.1.2. It is when the fertilised egg attaches to the wall of the uterus. (1)
- 1.2.3. The shedding of the uterus lining which result in bleeding. (1)
- 1.2.4. Tough, flexible tissue which attaches the bones to bones. (1)
- 1.2.5. They produce sperms and hormones. (1)

[5]

1.3. MATCHING

Choose a term in Column B that matches the description in Column A. Write only the letter of the word from Column B next to the question number.

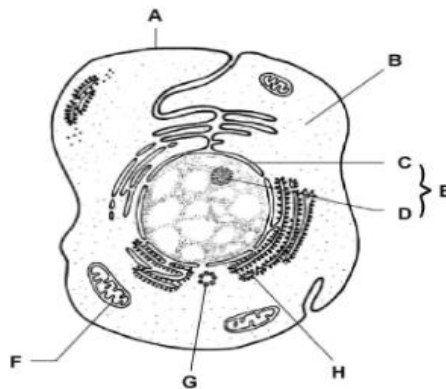
Column A	Column B
1.3.1. An organ where food is digested further	A. Haemoglobin
1.3.2. Cells that are not specialised and can develop into any other type of cell	B. Nerve cells

1.3.3. Tube that conducts urine to the outside of the body.	C. Kidney
1.3.4. Pigment that carries oxygen in red blood cells.	D. Stomach
1.3.5. Organ responsible for filtering the blood.	E. Stem cells
1.3.6. Cells in sense organs which detect stimuli from the environment.	F. Urethra
	G. White blood cells

[6]

TOTAL SECTION A: 17**SECTION B****QUESTION 2****CELLS AS ABASIC UNIT OF LIFE**

Study the diagram below and answer the question that follows.



2.1. Identify the type of cell illustrated above. (1)

2.2. Provide labels for part A, B and C. (3)

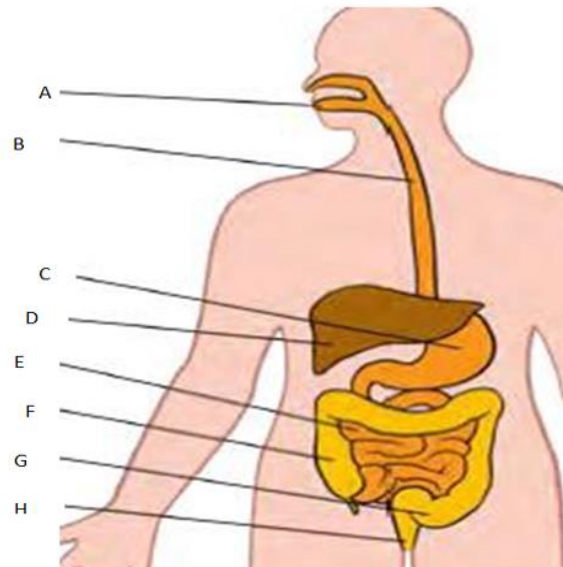
2.3. What is the function of parts B and F? (2)

2.4. Tabulate TWO difference between an Animal Cell and a Plant cell. (4)

[10]

QUESTION 3**SYSTEMS IN THE HUMAN BODY/DIGESTIVE SYSTEM**

3.1 Study the diagram and answer the questions that follow:



3.1.1 Suggest the heading of the diagram above. (1)

3.1.2 List the main process which takes place at part A and F. (2)

3.1.3 Provide labels for part B to D. (3)

3.1.4 What is the function of part D (1)

3.1.5 Give TWO health issues associated with this system. (2)

3.2 List one symptom of:

3.2.1 Anorexia Nervosa (1)

3.2.2 Diarrhoea (1)

3.2.3 Explain what a balanced diet is. (2)

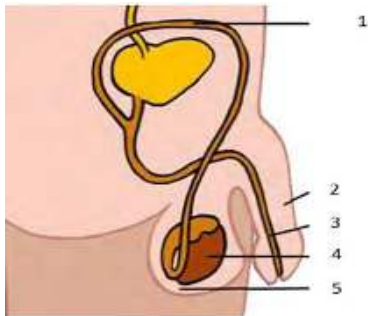
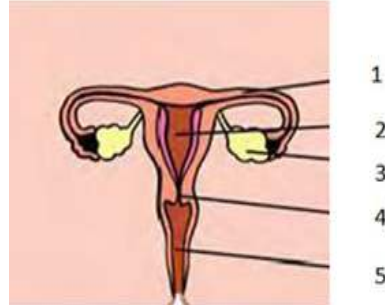
3.3 What are the TWO important functions of the skeleton? (2)

3.4 Discuss what would happen if someone has weak bones. (2)

[17]

QUESTION 4**HUMAN REPRODUCTION**

Study the following structure and answer the questions that follow.

**STRUCTURE A****STRUCTURE B**

- 4.1 Identify structure A and B (2)
- 4.2 Label the part marked 2 in structure A. (1)
- 4.3 The part labelled 2 in structure B is the uterus. What is its function? (1)
- 4.4 Label the part marked 3 in structure B. (1)
- 4.5 In which part does fertilization takes place in Structure B. Give the number. (1)
- 4.6 Name the part mentioned in the answer to question 4.5 (1)
- 4.7 Briefly explain the process of fertilisation. (2)
- 4.8 Give ONE (1) reason why condoms are popular method of contraception. (1)

[10]

QUESTION 5

CIRCULATORY AND RESPIRATORY SYSTEMS

A group of learners did an investigation to determine whether the heart beats faster during exercise than at rest. One of the learners exercised on a treadmill for 25 minutes and the following data was recorded:

Time (minutes)	Heart rate (beats per minute)
0	55
5	70
10	80
15	90
20	120
25	130

- 5.1. How many heartbeats per minute were recorded after 15 minutes? (1)
- 5.2. State a hypothesis for the learner's investigation. (2)
- 5.3. Identify the:
- 5.3.1. independent variable (1)
- 5.3.2. dependent variable (1)
- 5.4. How can the learners improve the reliability of their results? (1)

[6]**TOTAL SECTION B: 43****TOTAL: [60]**