



Province of the  
**EASTERN CAPE**  
EDUCATION

**SENIOR PHASE**

**GRADE 9**

[Stanmorephysics.com](http://Stanmorephysics.com)

**MARCH 2025**

**NATURAL SCIENCES**

**MARKS: 60**

**TIME: 2 hours**

**This question paper consists of 4 pages including the cover page**

**NATURAL SCIENCES GRADE 9**

**MARCH 2025**



	Topics	Cognitive levels			Allocated Time in CAPS	Suggested mark allocation
		Low (40%)	Middle (45%)	High (15%)		
<b>TERM 1</b>	Cells as the Basic unit of life				2 weeks	14
	Systems in the human body				1 weeks	6
	Human reproduction				2 weeks	14
	Circulatory and respiratory systems				2 weeks	13
	Digestive system				2 weeks	13
<b>TOTAL</b>						<b>60</b>

## QUESTION 1

### MULTIPLE CHOICE

Various options are provided as possible answers to the following questions. Choose the correct option by circling, or placing a cross over the correct letter (A – D).

1.1 The material in a cell that carries hereditary information is called ...

- A. hydrochloric acid.
- B. deoxyribonucleic acid.
- C. sulfuric acid.
- D. carbonic acid.

1.2 The physical breaking down of food by crushing, mashing and churning is known as ...

- A. absorption.
- B. mechanical digestion.
- C. egestion.
- D. chemical digestion.



1.3 The following process is not a characteristic of life.

- A. Photosynthesis
- B. Respiration
- C. Excretion
- D. Movement

1.4 The random movement of particles from a region of high concentration to a region of low concentration, is called ...

- A. respiration.
- B. diffusion.
- C. breathing.
- D. gaseous exchange.

1.5 The removal of metabolic waste products from the body which takes place in cells in the form of urine, sweat and exhalation is known as ...

- A. excretion.
- B. inhalation.
- C. digestion.
- D. absorption.

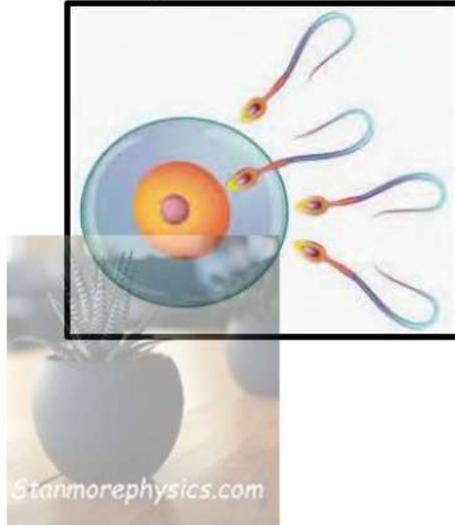
1.6 The organelle responsible for cellular respiration is ...

- A. mitochondrion.
- B. cell wall.
- C. chloroplast.
- D. large vacuole.

1.7 Which cell structure is only found in plant cells?

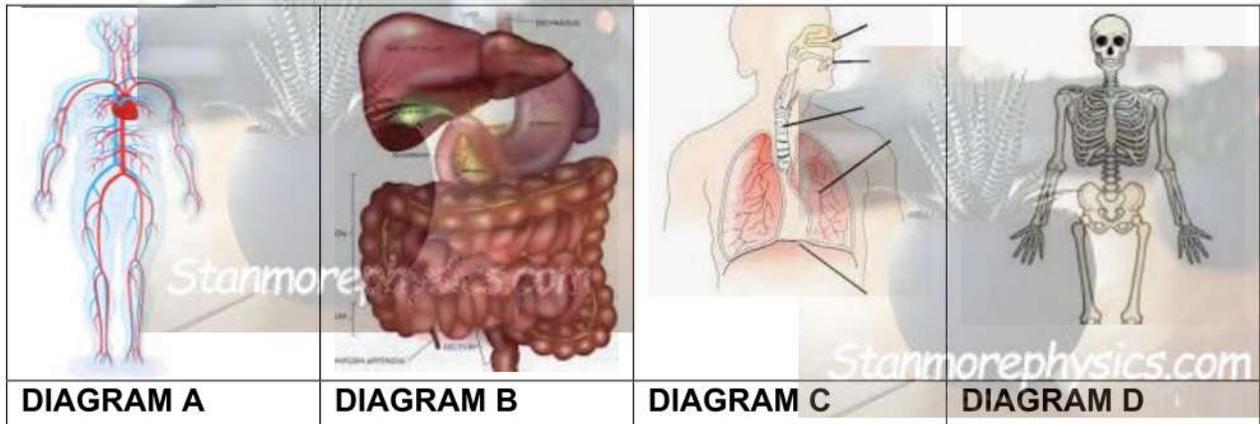
- A. Nucleus
- B. Cell membrane.
- C. Chloroplast
- D. Cytoplasm

1.8 Which process is shown in the diagram below?



- A. Implantation
- B. Fertilization
- C. Ovulation
- D. Gestation

1.9 Select the letter of the diagram where digestion and absorption take place.



- A. Diagram A
- B. Diagram B
- C. Diagram C
- D. Diagram D

1.10 The part of the excretory system where urine is stored before it is excreted is the...

- A. kidney.

- B. ureter.
- C. urethra.
- D. bladder.

[10]

**QUESTION 2**

**TERMINOLOGY**

Give the correct scientific term for each of the following descriptions.

- 2.1. The blood vessels that carry blood away from the heart. (1)
- 2.2. A condition where bowel movements occur less frequently and consist of hard, dry stool. (1)
- 2.3. A system responsible for removal of excess and waste products from the body. (1)
- 2.4. A group of organs that perform the same function. (1)
- 2.5. Organisms that are so small that they can only be seen when using a microscope. (1)

[5]

**QUESTION 3**

**MATCHING**

Choose a term from COLUMN B that matches a statement in COLUMN A. Write only the letter (A – H) next to the question number (3.1 – 3.6), for example: 3.7 J.

COLUMN A	COLUMN B
3.1 The part of the microscope that controls the amount of light that enters.	A. Tissue
3.2. The monthly breakdown and discharge of the uterus lining.	B. Tendon
3.3. A group of cells that have a similar structure and that perform the same function.	C. Oestrogen
3.4. A tough inelastic tissue which attaches muscles to bones.	D. Menstruation
3.5. One of the main female sex hormones and is needed for puberty and the menstrual cycle.	E. Uterus
	F. Nerve cells
	G. Diaphragm
	H. Muscle cells
	H Testosterone

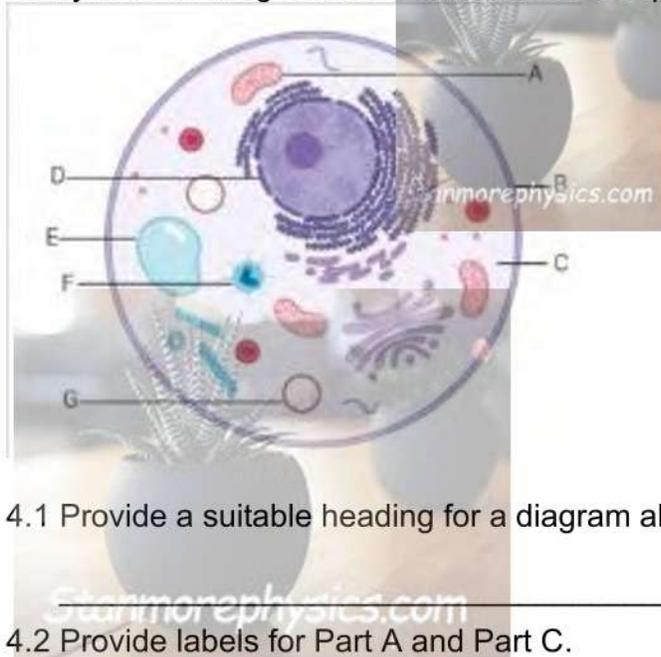
<p>3.6. Specialised cells that carry messages which co-ordinate the functions of the body.</p> <p>3.7. The place where the embryo develops and grows.</p> <p>3.8. A hormone that stimulates sperm production.</p>	<p>I Indicator</p>
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[8]

**QUESTION 4**

**CELLS AS THE BASIC UNITS OF LIFE**

Study the following structure and answer the questions that follow.



4.1 Provide a suitable heading for a diagram above. (1)

4.2 Provide labels for Part A and Part C. (2)

A \_\_\_\_\_ B. \_\_\_\_\_

4.3 What is the function of the nucleus in a cell? (2)

\_\_\_\_\_

4.4 Why is the above cell unable to make its own food? (1)

\_\_\_\_\_

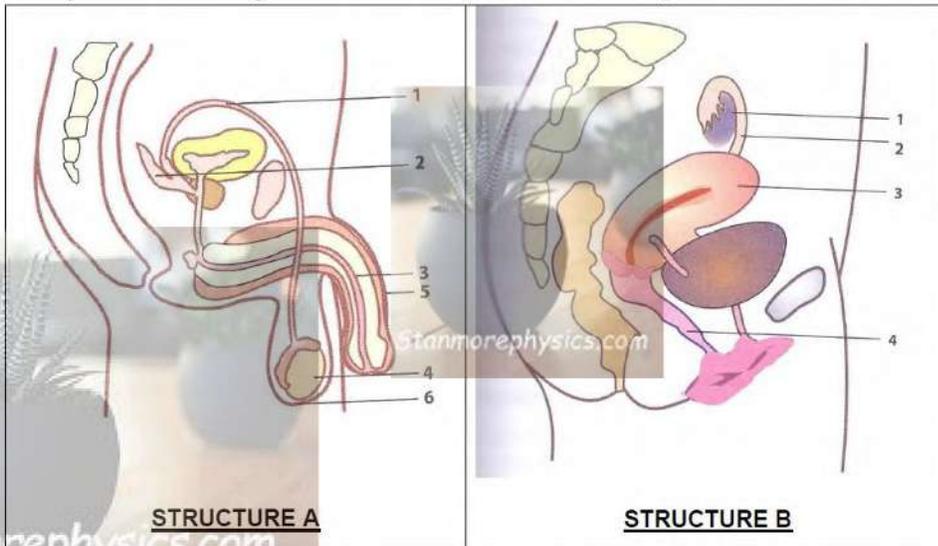
4.5 Tabulate TWO differences between a plant cell and an animal cell. (2)


[8]

**QUESTION 5**

**THE HUMAN REPRODUCTIVE SYSTEM**

Study the following structures and answer the questions that follow.



5.1 Identify Structure A and Structure B. (2)

A. \_\_\_\_\_ B. \_\_\_\_\_

5.2 Label the part marked 5 in Structure A. (1)

5.3 Give a reason why the testes hang outside the body. (2)

5.4 The part labelled 3 in Structure B is the uterus. What is its function? (1)

5.5 Label the part marked 1 in Structure B. (1)

5.6 In which part does fertilisation take place in Structure B. Give the number. (1)

5.7 Name the part mentioned in the answer to Question 5.6. (1)

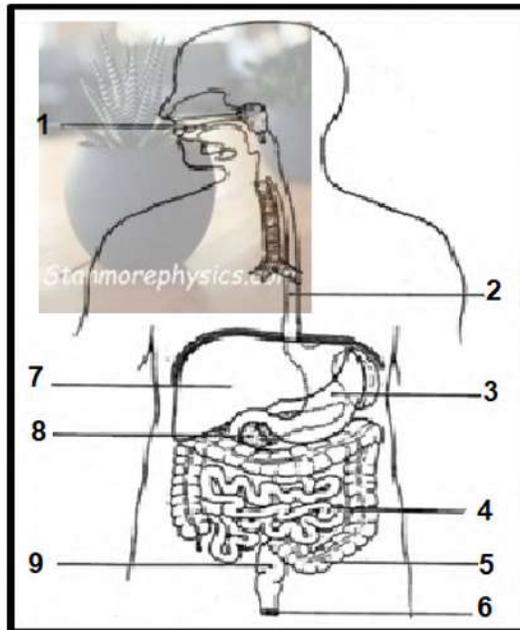
5.8 Give ONE reason why condoms are a popular method of contraception. (1)

[10]

**QUESTION 6**

**SYSTEMS IN THE HUMAN BODY**

Study the diagram below and answer the questions that follow.



6.1. Supply labels for the parts numbered 2 and 9. (2)

2 \_\_\_\_\_ 9 \_\_\_\_\_  
6.2 State the process that takes place in parts numbered 1, 3, 4 and 6. (4)

\_\_\_\_\_

\_\_\_\_\_

[6]

**QUESTION 7**

**NUTRITION**

7.1. For each of the following food items, classify what nutrients you can get from them (i.e. protein, carbohydrates, vitamins, etc). Some food items provide more than one class of nutrient. (4)

	
<p>Fried chips</p>	<p>Straw berries</p>

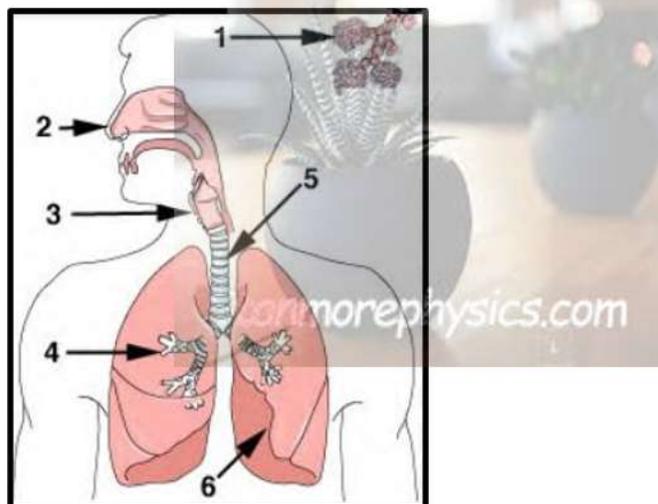
7.2. Name the health disorder that leads to rejection of all food types due to an obsession with losing weight. (1)

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[5]

**QUESTION 8**

Study the diagram. The questions are based on the diagram below.



8.1 Identify the system illustrated by the diagram above. (1)

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8.2 Which system in a human body goes hand in hand with the system mentioned in 8.1? (1)

8.3 Suggest a reason why you think the two above-mentioned systems work hand in hand. (3)

8.4 Differentiate between an artery and a vein.

Artery: \_\_\_\_\_ (1)

Vein: \_\_\_\_\_ (1)

8.5. Describe how arteries are suited to their function of distributing blood to the parts of the body. (2)

[9]

[TOTAL: 60]