

NATURAL SCIENCES GRADE 9

TOPIC: Plant and Animal Cells

Cells in tissues, organs, systems

INFORMAL TEST 1.1

MARKS: 15

Name and Surname: _____

Gr. 9 _____

SECTION A

QUESTION 1

1.1 Write the **LETTER** (A, B, C or D) of the correct answer on the line provided.

1.1.1 The smallest, structural and functional unit of the body.

- A Nucleus
- B Mitochondria
- C Vacuole
- D Cell

Answer: _____ (1)

1.1.2 A group of different organs which work together.

- A System
- B Tissue
- C Organ
- D Organism

Answer: _____ (1)

1.2 Provide the correct **WORD** for each of the descriptions.

1.2.1 An instrument that is used to magnify things that cannot be seen with the naked eye. _____ (1)

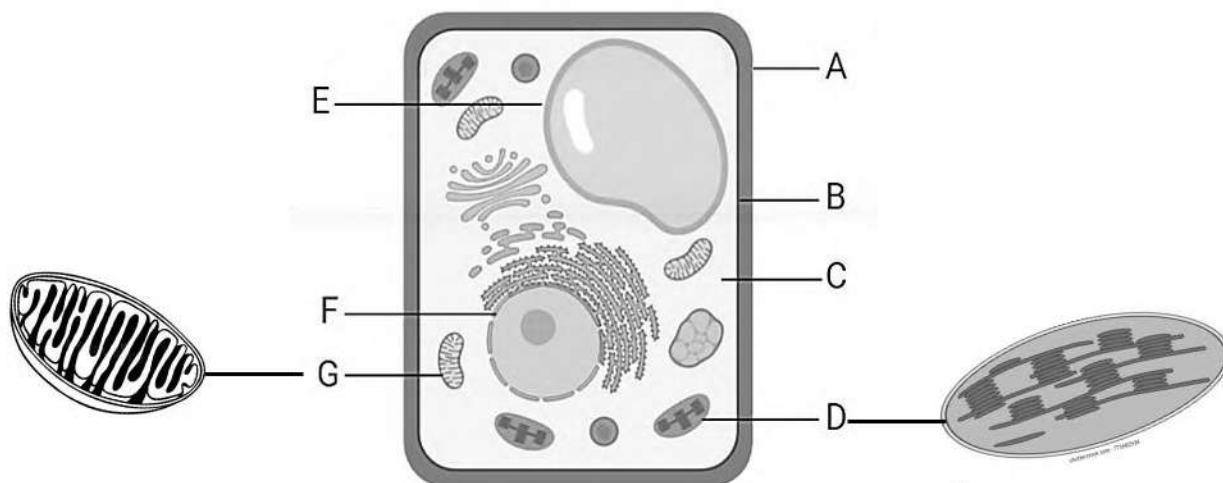
1.2.2 It surrounds the contents (cytoplasm) of the cell and controls the materials which pass into and out of a cell (selectively permeable). _____ (1)

1.2.3 The organelle that is responsible for cellular respiration. _____ (1)
[5]

SECTION B

QUESTION 2

2.1 Study the diagram of a cell below and answer the questions that follow:



2.2.1 Provide a suitable heading for the diagram. _____ (1)



2.2.2 Give TWO visible reasons for your answer in question 2.2.1.

(2)

2.2.3 Identify the parts labelled D and G.

D: _____

G: _____

(2)

2.2.4 The diagram shows a large organelle labelled F.

Give two functions of this very important organelle.

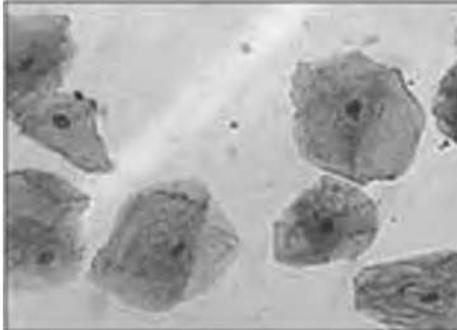
(2)

2.2.5 What is the main purpose of organelle E?

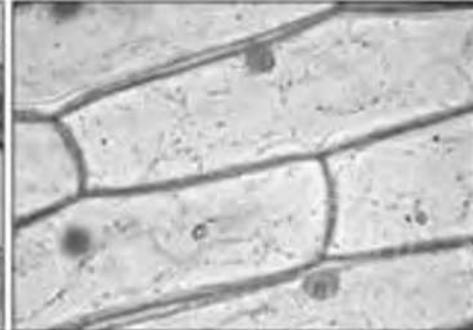
(1)

2.3 Study the diagram of human cheek cells and onion cells under the microscope.

Human cheek cells under the microscope



Onion cells under the microscope



2.3.1 Give a reason why the human cheek cells have an irregular shape.

(1)

2.3.2 Why don't onion cells contain chloroplasts, even though they are plant cells?

(1)

TOTAL MARKS: 15

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QUESTION 1

1.1.1 D✓
 1.1.2 A✓

1.2.1 Microscope✓
 1.2.2 Cell membrane✓
 1.2.3 Mitochondrion✓

MEMORANDUM

SECTION A

INFORMAL TEST 1.1

MARKS: 15

[5]

SECTION B

QUESTION 2

2.2.1 Plant cell✓ (1)

2.2.2 The cell has a cell wall. ✓
 The cell has a rigid/regular shape. ✓
 The cell contains chloroplasts. ✓
 A large vacuole is present. ✓ (Any TWO answers) (2)

2.2.3 D - Chloroplast✓
 G - Mitochondrion✓ (2)

2.2.4 Organelle F (the nucleus):
 - controls all the processes and chemical reactions (activities) in the cell. ✓
 - contains the DNA✓ which determines the inherited characteristics. (2)

2.2.5 Organelle E (vacuole) stores the cell sap (water, sugar and salts.) ✓ (1)

2.3.1 Human cheek cells / animal cells do not have a cell wall,✓ only a cell membrane and therefor an irregular shape. (1)

2.3.2 Onions grow underground and are not involved in photosynthesis. ✓
 (Onion cells are specialised for storage of food.) (1)

TOTAL MARK: 15