

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)

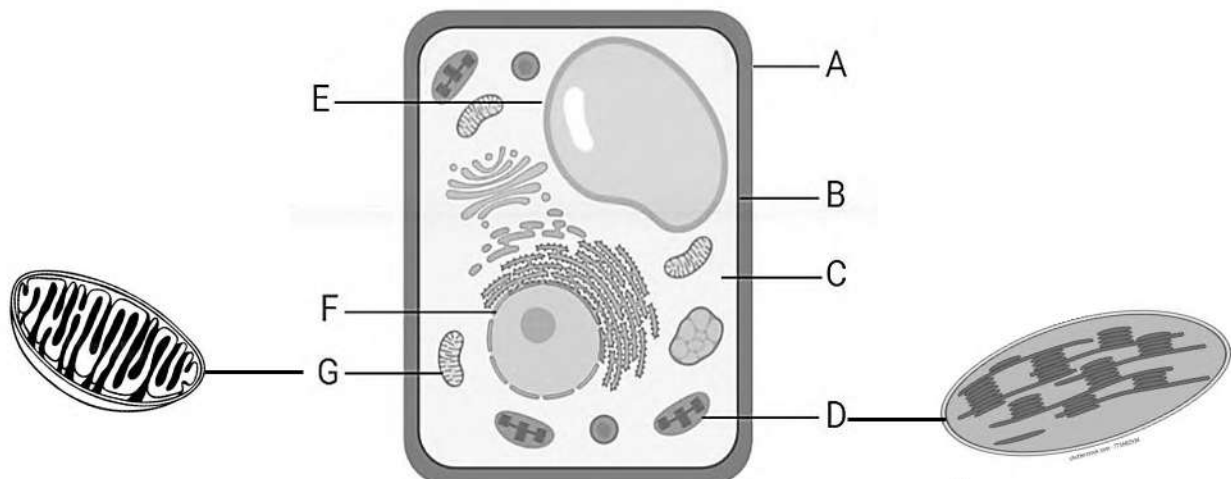
1.2.2 It surrounds the contents (cytoplasm) of the cell and controls the materials which pass into and out of a cell (selectively permeable). _____ (1)

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)

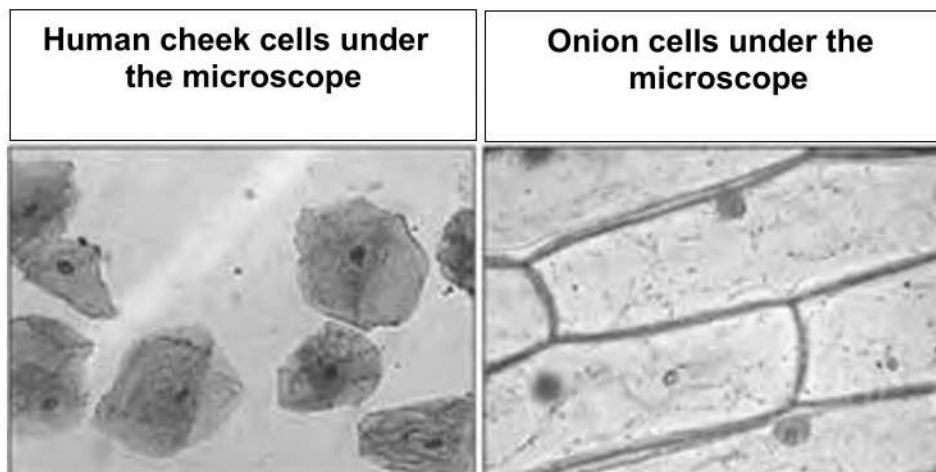
2.2.4 The diagram shows a large organelle labelled F.
Give two functions of this very important organelle.

_____ (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.



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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MEMORANDUM

SECTION A

QUESTION 1

1.1.1 D✓

1.1.2 A✓

1.2.1 Microscope✓

1.2.2 Cell membrane✓

1.2.3 Mitochondrion✓

[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