

**INSTRUCTIONS:**

1. This test consists of **TWO** sections.
2. Section **ONE (1)** consists of **TWENTY (20)** multiple choice questions and Section **TWO (2)** consists of **THREE (3)** short answer questions
3. All Questions must be answered.

**SECTION ONE: Multiple Choice**

**Instructions: Read each question carefully and select the correct answer.**

1. Which of these scientists invented telephone:
  - (a) Marie Curie
  - (b) Alexander Graham-Bell
  - (c) Thomas Edison
  - (d) Isaac Newton
2. In which step of the scientific method do scientists use video cameras and iPods?
  - (a) Observing
  - (b) Recording
  - (c) Hypothesising
  - (d) Experimenting
3. What was the best reason for inventing telephones?
  - (a) To talk to friends
  - (b) To communicate over long distances and to send messages quickly
  - (c) To get news
  - (d) To communicate whenever you're tired
4. Which of the following is a safety rule one must **NOT** follow in the Lab?
  - (a) Follow all instructions given
  - (b) Do not play in the Lab
  - (c) Eat in the Lab
  - (d) Do not taste chemicals
5. All of the following are characteristics of a mango tree except:
  - (a) Breathing
  - (b) Respiration
  - (c) Nutrition
  - (d) Reproduction
6. Animals without a backbone are called:
  - (a) Vertebrates
  - (b) Invertebrates
  - (c) Crawlers
  - (d) Worms
7. Which of the following is a mammal?
  - (a) Snake
  - (b) Dog
  - (c) Tree frog
  - (d) Lizard
8. Which of the following is the correct arrangement from smallest to largest?
  - (a) Tissue, Cell, Multicellular organism
  - (b) Cell, Organ, Tissue
  - (c) Cell, Tissue, Organ
  - (d) Tissue, Cell, Organ
9. What is the main function of the respiratory system?
  - (a) To filter air
  - (b) To take in oxygen and let out carbon dioxide
  - (c) To take in air only
  - (d) To take in carbon dioxide and let out oxygen
10. The main organ of the respiratory system is the:
  - (a) Lungs
  - (b) Nose
  - (c) Heart
  - (d) Trachea
11. The trachea is also known as the:
  - (a) Larynx
  - (b) Voice box
  - (c) Windpipe
  - (d) Pharynx
12. Which of the following materials can be used to make a model of the trachea?
  - (a) Straw
  - (b) A stick with springs around it
  - (c) Hose
  - (d) A straw with springs around it
13. Which of the following is true about the respiratory system?
  - (a) It has two pairs of lungs
  - (b) The mouth filters the air
  - (c) The nose filters the air
  - (d) It has two voice boxes

14. Why do living organisms need oxygen?

- (a) To breathe
- (b) To make food
- (c) To make energy
- (d) To store it

15. The particles in a solid are:

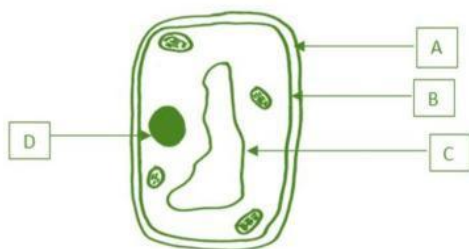
- (a) widely spaced
- (b) loosely spaced
- (c) tightly packed
- (d) in random motion

**Total 20 marks**

**SECTION TWO: Short Answer.**

**Instructions: Answer ALL questions in this section in the spaces provided.**

1. Figure 1 shows a diagram of a cell. Use the words at the side to help label the parts of the cell.



VACUOLE; NUCLEUS; CELL WALL;  
CELL MEMBRANE; MITOCHONDRION

**Figure 1. Diagram of a cell.**

i. Label the letter a, b, c & d in the diagram above.

- A: .....
- B: .....
- C: .....
- D: .....

**(4 marks)**

ii. What type of cell is the diagram showing above?

.....

**(1 mark)**

iii. State the function of C and D in the diagram above.

**Structure C:**

.....

**Structure D:**

.....

**(4 marks)**

b) What is a cell?

.....  
.....

**(2 marks)**

c) Complete the flowchart below which outlines the formation of a multicellular organism. (**Systems; Organs; Tissues; Fats**).



(3 marks)

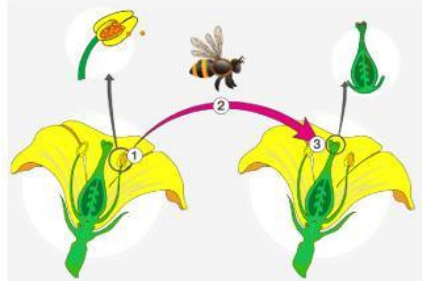
e) Name any **TWO** specialized cells in the human body?

.....

(2 marks)

**Total 20 marks**

2) (a) Study the diagram below then answer the questions which follow:



(i) Name the plant process shown in the diagram above:

.....

(ii) What is the agent that helps with the process in (b)(i) above ?

.....

(iii) Identify the **TWO** parts of the flower that are involved in the process taking place:

Part 1 : .....

Part 2: .....

(4 marks)

(b) Match the parts of the flower in **column A** to their function in **column B**. An example is done for you.

Column A Parts of the flower	Column B Functions for the parts of the flower
A) Petal	— protects the young flower
B) Ovule	— supports the entire flower
C) Stigma	— makes pollen grains
D) Ovary	<u>B</u> forms the seed after fertilization
E) Anther	— attracts insects for pollination
F) Receptacle	— traps or collects pollen grains during pollination
G) Sepal	— holds up or supports the stigma
H) Style	— forms the fruit after fertilization

(7 marks)

**Total 11 marks**

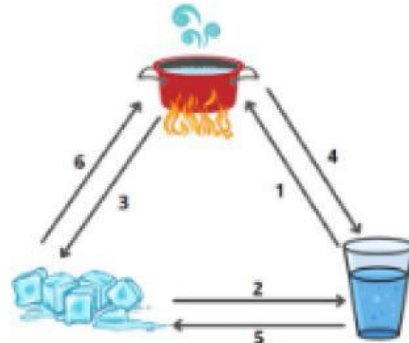
3. (a) What is a Matter?

.....  
 .....

**(1 marks)**

(b) Study the diagram below and label the change in the state of matter occurring at 1, 3 & 5. Use the words below to help identify the change of state.

**SUBLIMATION; CONDENSATION; FREEZING;  
 MELTING; RESUBLIMATION; EVAPORATION**



1: .....

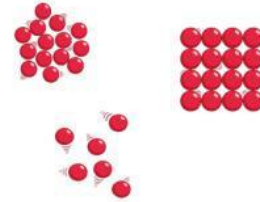
3: .....

5: .....

**(3 marks)**

(c) In the box below, insert the diagram which shows the arrangement of the particles of a solid and liquid.

Solid		Liquid



**(4 marks)**

(d) Complete the table below that explains the properties of the state of matter.

Solid	Liquid	Gas
Has a fixed shape		
		Have a lot of energy
	Particles arranged close to each other, with some space to move	

**(6 marks)**

**Total 14 marks**

**Total 65 Marks**  
End of Exam

