

# **1. Characteristics and classification of living organisms**

## **1.1 Characteristics of living organism**

### **Paper 3 and 4**

Question Paper

## Paper 3

Questions are applicable for both core and extended candidates

- 1 (d) Bacteria and yeast are living organisms.

Table 1.1 shows descriptions of some characteristics of living organisms.

Complete Table 1.1 by writing the name for each characteristic described.

**Table 1.1**

description	name
the ability to detect and respond to changes in the internal or external environment	
the removal of the waste products of metabolism and substances in excess of requirements	
a permanent increase in size and dry mass	

[3]

- 2 (c) Excretion and reproduction are two characteristics of all living organisms.

Place ticks (✓) in **two** boxes to show other characteristics of all living organisms.

breathing	
eating	
growing	
moving	
sleeping	
talking	

[2]

3 (f) Nutrition is one of the characteristics of living things.

State the names of **three other** characteristics of living things.

1 .....

2 .....

3 .....

[3]

4 All living organisms have the same characteristics.

Two of these characteristics are movement and nutrition.

(a) State **three other** characteristics of living organisms.

1 .....

2 .....

3 .....

[3]

5 (b) Many living organisms can be classified as plants or animals.

Table 5.1 shows some features of animals and plants.

Place ticks (✓) in the boxes to show the correct features of animals and plants.

**Table 5.1**

feature	animals	plants
can respire		
can grow		
can make their own food		
contain DNA		
can respond to changes in their environment		

[5]

6 (b) All living organisms show the same seven characteristics.

State **four** of the characteristics of living organisms.

- 1 .....
- 2 .....
- 3 .....
- 4 .....

[4]

7 (a) Reproduction is a characteristic of all living organisms.

State **two** other characteristics of all living organisms.

1 .....

2 .....

[2]

8 (c) Excretion is a characteristic of living organisms.

Growth is another characteristic of living organisms.

(i) Define the term *growth*.

.....

.....

.....[2]

(ii) State **three** characteristics of living organisms other than excretion and growth.

1 .....

2 .....

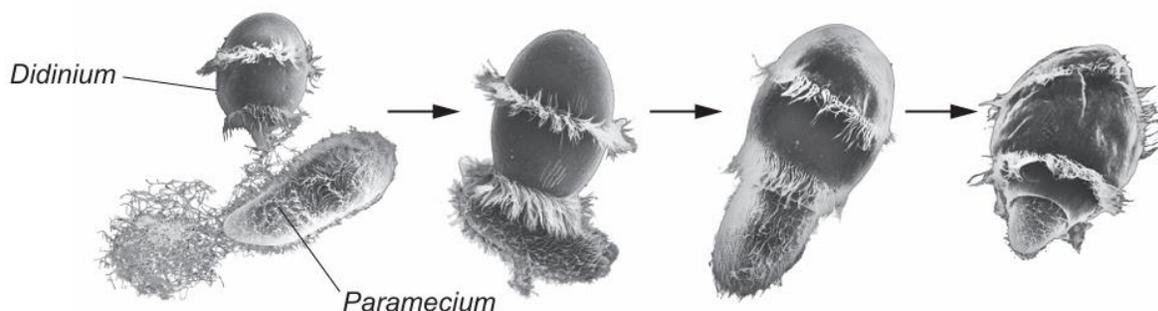
3 .....

[3]

## Paper 4

Questions are applicable for both core and extended candidates

- 9 (c) *Didinium* is a predatory ciliate. A video recording was made of one *Didinium* feeding on a *Paramecium*. Fig. 5.3 shows a sequence of still photographs taken from the video.



**Fig. 5.3**

Complete the table by putting a tick (✓) by each characteristic of life that can be seen in the still photographs from the video in Fig. 5.3.

excretion		nutrition	
growth		reproduction	
movement		respiration	

[1]

- 10 Sensitivity is one of the characteristics of all living organisms.

(a) Define the term *sensitivity*.

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..... [2]