

2024 END-OF-SEMESTER EXAMS – BIOLOGY 2
BIOLOGY
SHS ONE
ESSAY

Answer **two** questions from part 1 and **all** questions in part 2

Part 1

Answer only **two** questions

1. (a)(i) Define the scientific method

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.....

..... 2 marks

(ii) List the steps in the scientific method

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..... 6 marks

(b)(i) Complete the table below

Stain	Structure Stained	Colour
	starch	
Eosin	cellulose	
Haematoxylin		blue
Leishmans's stain		pink

5 marks

(b)(ii) What is locomotion?

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..... 2 marks

(b)(iii) State five reasons why animals locomote

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..... 5 marks

2.(a) Explain the following branches of biology

(i) Botany

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..... 2 marks

(ii) Entomology

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..... 2 marks

(iii) Pomology

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..... 2 marks

(b) (i) Give four (4) differences between autotrophic nutrition and heterotrophic nutrition

Autotrophic nutrition	Heterotrophic nutrition

4 marks

(b) (ii) Name the locomotory structures in the following organisms

Organism	Locomotory structure
Euglena	
Paramecium	
Fish	
Birds	
Bat	

5marks

(b)(iii) Mention five (5) excretory products of plants.

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..... 5 marks

3. (a) Differentiate between

(i) Transverse section and longitudinal section of an object

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..... 3 marks

(ii) Radial symmetry and bilateral symmetry

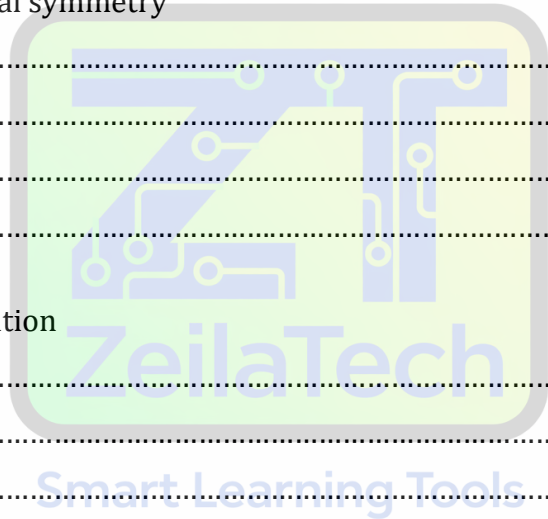
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..... 3 marks

(b)(i) Define heterotrophic nutrition

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..... 3 marks

(ii) Mention three (3) types of heterotrophic nutrition and give an example of organism for each

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..... 6 marks



(c). Mention five differences between plants and animals in the table below

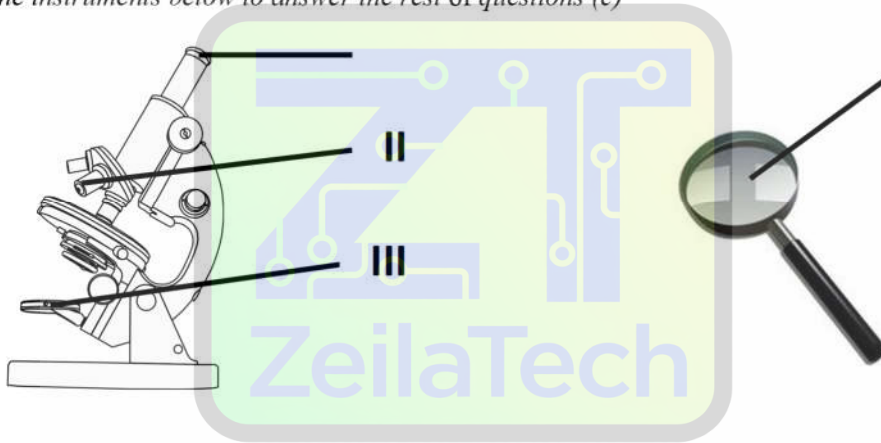
Animals	Plants
i.	
ii.	
iii.	
iv.	
v.	

5 marks

Part 2

Answer **all** questions.

) Use the instruments below to answer the rest of questions (c)



4. (a) Name the parts labelled **I** to **IV** in **A** and **B**

I

II

III

IV

(b) Calculate the magnification of the microscope if the eyepiece has a power of $\times 20$ and the objective has a power of $\times 60$.

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