

2024 WASSCE SUPER MOCK BIOLOGY 2

BIOLOGY

PAPER 2

1 hour 40 minutes

ESSAY

[70 marks]

Answer **three** questions in all; **2** questions from section **A** and the **only** compulsory question in section **B**

Write your answers in ink in your answer booklet

Large, labelled diagrams should be used where they make an answer clearer. The names given for a chosen species must be in **English** or **scientific** and not vernacular.

Credit will be given for clarity of expression and orderly presentation of answers.

All questions carry equal marks.

SECTION A

FOR ALL CANDIDATES

Answer **two** questions **only** from this section

1. (a) Explain **briefly** the following terms:

(i) Guttation;

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(ii) Cell cycle.

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[4 marks]

(b) State **four** enzymes present in *pancreatic juice* and relate their **function**;

(i)

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(ii)

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(iii)

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[8 marks]

(c) State **two** ways of controlling air pollution

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[2 marks]

(i) Describe the **structure** of the plant cell that **regulates** opening and closure of the stomata;

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[4 marks]

(ii) State any **two** characteristics of enzymes;

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[2 marks]

2. (a) Briefly outline the **main** activity that occurs at *S-phase* of interphase;

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[9 marks]

(b) State any **three** natural processes that replace carbon dioxide for *photosynthesis*;

[3 marks]

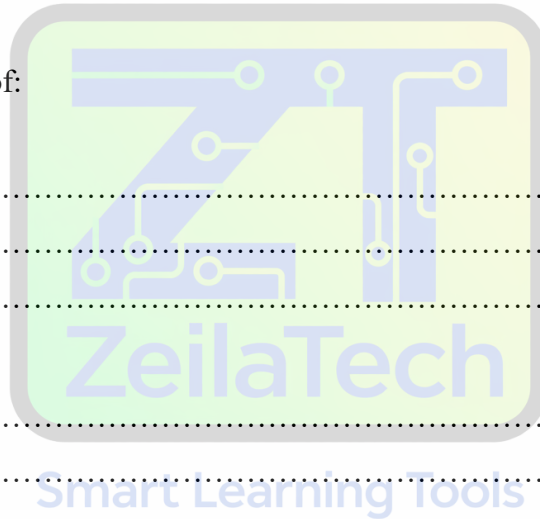
(i) Explain briefly how constipation results in a dry-hard stool.

[3 marks]

(c) State **two** effects each of:

(i) Pressure

(ii) Slope



[4 marks]

(ii) Name one example of a halophyte;

[1 mark]

3. (a) What is a *balanced diet*?

[2 marks]

(b) State any **three** conditions of *overnutrition*;

[3 marks]

(i) State **four** adaptations used by plants to prevent **self-pollination**;

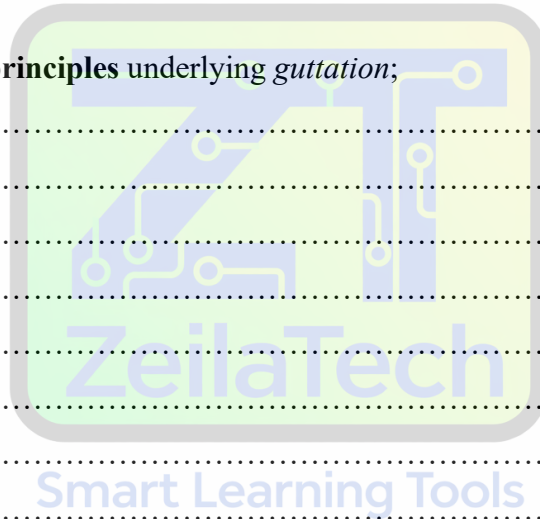
[4 marks]

(c) Outline the biological **principles** underlying *guttation*;

[6 marks]

(d) What is **RNA**?

[2 marks]



(i) Name the three **types** of RNA;

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[3 marks]

4. (a) What is a *homologous* chromosome?

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[2 marks]

(b) State any three **advantages** euglena has over a bird;

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[3 marks]

(i) Explain **Root pressure**;

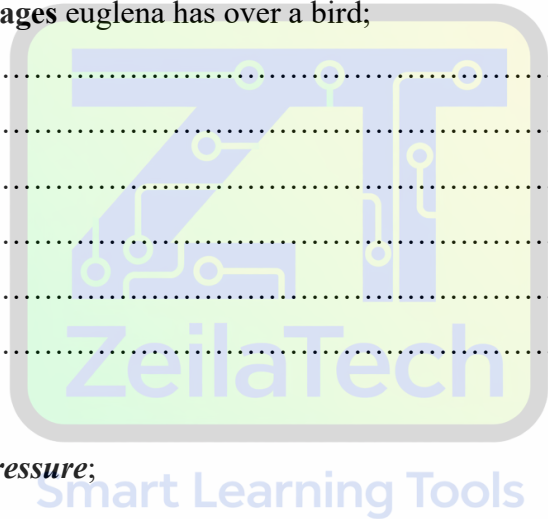
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[3 marks]

(ii) Describe the **structure** of the animal cell that transports oxygen;

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[3 marks]



(b) Explain the following terms:

(i) Pollution

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(ii) Conservation

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[4 marks]

(c) complete the table below by indicating the differences between the **structures** of *xerophytes* and *hydrophytes*;

STRUCTURE	XEROPHYTE	HYDROPHYTES
Roots		
Leaves		
Stomata		

[6 marks]

(d) State the main events that occur during these stages of the cell cycle;

(i) *Zygotene*;

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(i) *Leptotene*;

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(e) Differentiate between *oligotrophic* and *eutrophic* water bodies;

[4 marks]

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Smart Learning Tools

[3 marks]

(f) Make a **diagram** of the following *nucleotides*;

(i) Guanosine-5- diphosphate;

(ii) Deoxyadenosine-5-triphosphate

[4 marks]

(iv) State any *two* characteristic features of the *rainforest*?

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Smart Learning Tools

END OF PAPER