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Environmental systems and societies
Higher level
Paper 1

30 April 2026

Zone A afternoon | **Zone B** afternoon | **Zone C** afternoon

Session number

2 hours

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Instructions to students

- Write your session number in the boxes above.
- Do not open this examination paper until instructed to do so.
- Answer all questions. Refer to the resource booklet which accompanies this question paper.
- Answers must be written within the answer boxes provided.
- A calculator is required for this paper.
- The maximum mark for this examination paper is **[70 marks]**.



Answer **all** questions. Answers must be written within the answer boxes provided.

1. With reference to **Figure 1(d)**, state the average precipitation range throughout the year in Mauritius.

[1]

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2. (a) Suggest the importance of education programmes to the conservation of biodiversity.

[1]

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- (b) With reference to **Figure 2(b)**, calculate (to **two** decimal places) the percentage of flowering plant species that are endemic to Mauritius.

[1]

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- (c) Outline why Mauritius has a high proportion of endemic species.

[2]

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- (d) State **one** ecosystem service that would be adversely affected by the change in forest cover shown in **Figure 2(c)**.

[1]

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3. (a) With reference to **Figure 3(a)**, outline how the presence of mangroves can reduce water pollution from land-based sources entering coral reefs.

[2]

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- (b) With reference to **Figure 3(a)**, outline how loss of coral reefs could impact seagrass ecosystems.

[2]

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- (c) With reference to **Figure 3(c) and Figure 3(d)**, evaluate the use of transplanting coral to restore coral reef ecosystems at Pointe aux Feuilles.

[6]

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4. (a) With reference to **Figure 4(a)**, calculate the natural increase rate of the population of Mauritius.

[1]

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- (b) Suggest why the natural increase rate differs from the population growth rate given in **Figure 4(a)**.

[1]

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- (c) With reference to **Figure 4(b)**, outline potential issues for the future economic development of Mauritius.

[2]

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5. (a) With reference to **Figures 1(b) and 5(a)**, describe the relationship between altitude and the locations of sugarcane plantations. [1]

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- (b) Outline **two** environmental impacts on coastal waters caused by growing sugarcane nearby. [2]

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- (c) Evaluate the sustainability of the processing of sugarcane as illustrated in **Figure 5(c)**. [4]

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6. (a) Identify **one** advantage and **one** disadvantage of the trend in tourist numbers as shown in **Figure 6(b)**. [2]

Advantage:	
Disadvantage:	

- (b) With reference to **Figure 6(c)** calculate the percentage change in fish production between 2010 and 2021. [1]

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- (c) Explain **three** ways in which climate change could impact future fish catches in Mauritius. [3]

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(This question continues on the following page)



(Question 6 continued)

- (d) Outline how the fishing industry in Mauritius could avoid the tragedy of the commons. [5]

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7. (a) Identify in how many months during 2023 the levels of PM_{2.5} exceeded the World Health Organization’s guidelines. [1]

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- (b) State a possible source of PM_{2.5} around Port Louis. [1]

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- (c) Outline **one** reason why PM_{2.5} is monitored in Port Louis. [1]

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- (d) Suggest **two** advantages of using citizen science to monitor air pollution in Port Louis. [2]

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- (e) Outline **one** social benefit of increasing green spaces in the city of Port Louis, as referred to in **Figure 7(c)**. [1]

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(This question continues on the following page)



(Question 7 continued)

- (f) Outline **two** economic benefits of greening the city of Port Louis, as referred to in **Figure 7(c)**.

[2]

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8. Discuss the Renewable Energy Roadmap 2030 referred to in **Figure 8(b)** and its aims to achieve energy security for Mauritius.

[6]

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9. Evaluate the potential impact of the National Solid Waste Management Strategy and Action Plan in Mauritius, as referred to in **Figures 9(a) and 9(b)**.

[6]

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10. (a) List **two** policy changes by the government of Mauritius that could lead to a reduction in carbon emissions, which are shown in **Figure 10(a)**. [2]

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- (b) With reference to **Figure 10(b)**, describe how climate change may influence cyclones that affect Mauritius. [2]

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11. (a) With reference to **Figure 11**, outline how the sustainability of Mauritius has changed between 1961 and 2022. [2]

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- (b) Outline how economic market failure could contribute to the ecological deficit of Mauritius, as shown in **Figure 11**. [2]

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12. Outline reasons for and against the expectation that members of the United Nations (UN) should contribute to the UN Environmental Programme's (UNEP) Environment Fund, referred to in **Figure 12**. [4]

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