

Environmental systems and societies
Standard level
Paper 1

Friday 4 May 2018 (afternoon)

Candidate session number

1 hour

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Instructions to candidates

- 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 **[35 marks]**.



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

1. With reference to **Figures 1(b)** and **1(c)**, identify the biome found at the highest altitude in Madagascar. [1]

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2. With reference to **Figures 2, 3(a)** and **3(b)**, identify **two** reasons why Madagascar is considered to be at Stage 2 of the demographic transition model. [2]

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3. (a) With reference to **Figures 4(a), 4(b)** and **4(c)**, outline **two** reasons why a change from tavy agriculture to agroforestry may be more sustainable. [2]

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- (b) Outline **two** reasons why the change from tavy agriculture to agroforestry may be difficult to achieve. [2]

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4. Calculate the percentage of fish species under threat using **Figures 5(b)** and **5(c)**. [1]

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5. Identify **one** of the criteria that may have been used by the International Union for Conservation of Nature (IUCN) Red List to classify aye-aye as endangered. [1]

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6. With reference to **Figure 6**, evaluate the role of international zoos and wildlife parks in the conservation of aye-aye. [4]

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7. Explain why Madagascar has a high number of endemic species. [3]

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8. (a) Describe the trend in the ecological footprint over the period shown in **Figure 7**. [1]

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(b) Outline why the ecological footprint for the total population of Madagascar has increased during the period shown in **Figure 7**. [2]

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(c) Outline **one** reason for the trend in biocapacity during the period shown in **Figure 7**. [1]

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9. With reference to **Figures 8(a), 8(b) and 8(c)**, suggest **two** reasons why Makira National Park was created in the area shown.

[2]

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10. Explain how the protection of forests in Makira National Park may contribute to the conservation of the aquatic environment of MaMaBay.

[3]

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11. Outline how the model shown in **Figure 9(c)** demonstrates positive feedback.

[2]

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Answers written on this page
will not be marked.



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