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**GEOGRAPHY**

**0460/43**

Paper 4 Alternative to Coursework

**October/November 2019**

INSERT

**1 hour 30 minutes**

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**READ THESE INSTRUCTIONS FIRST**

The Insert contains Figs. 1.1, 1.2, 1.3 and 1.5 and Tables 1.1 and 1.2 for Question 1, and Figs. 2.1, 2.2 and 2.5 and Tables 2.2 and 2.3 for Question 2.

The Insert is **not** required by the Examiner.

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This syllabus is regulated for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

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This document consists of **11** printed pages and **1** blank page.

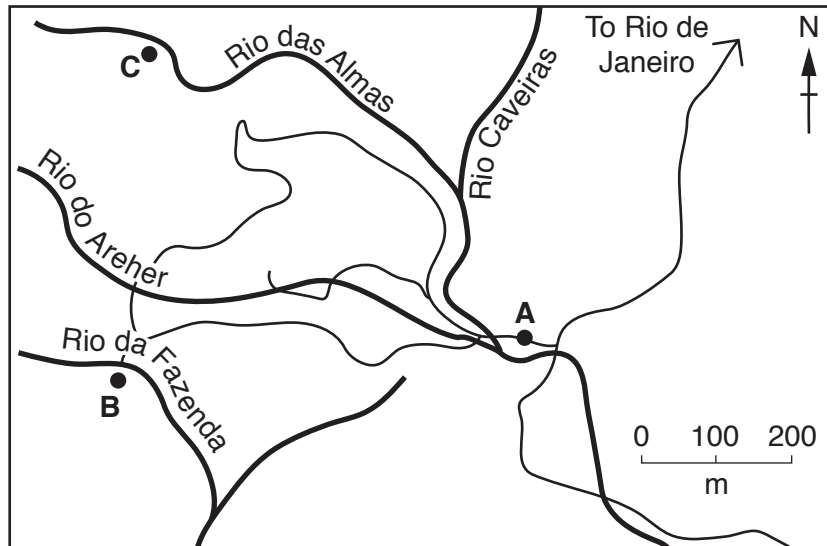
Fig. 1.1 for Question 1

## Three fieldwork sites

**Site A** is located 460m above sea level. It is a popular site for people to visit. The site contains a car park and picnic tables from which footpaths lead into the forest. Tourist developments have changed the original forest so it is less dense than originally.

**Site B** is located 560m above sea level. Much of the original vegetation was removed to create a coffee plantation. Since the plantation was closed the natural vegetation has grown back but the vegetation is less dense than it was originally.

**Site C** is located 685m above sea level. It is an area of natural rainforest which is less accessible than sites A and B. Little development has taken place here.



## Key

● A,B,C fieldwork sites

~~~~~ river

- - - - road

Fig. 1.2 for Question 1

Fieldwork equipment

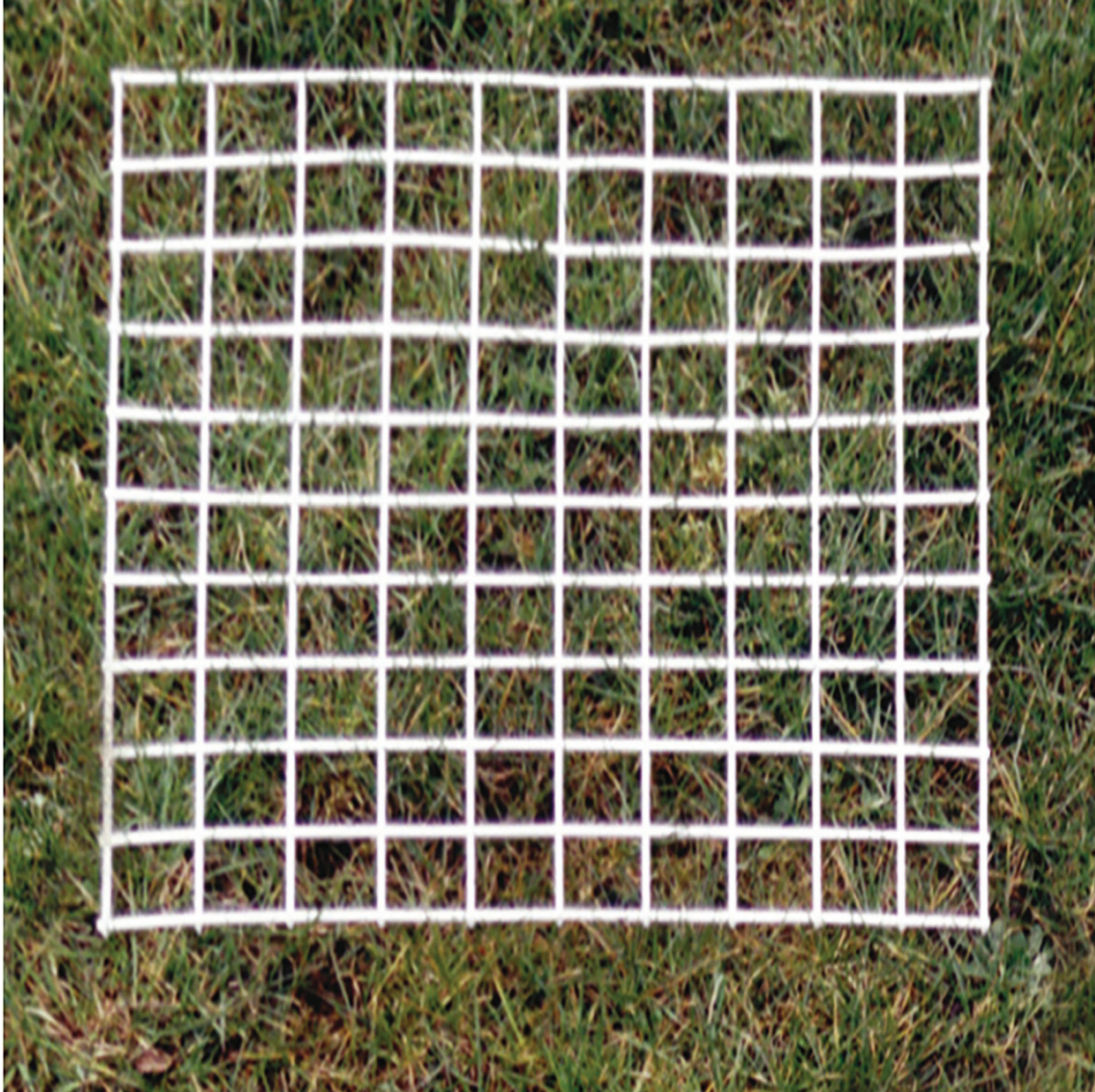


Fig. 1.3 for Question 1

## How to measure humidity

We used cobalt chloride paper to measure the humidity of the air. This paper is blue when it is dry and turns pink when exposed to humid air. We took a piece of cobalt chloride paper from the dry container where it had been kept and held it in the air. We used a stopwatch to measure how long it took for the paper to change from blue to pink. **The faster this change of colour occurred, the greater the humidity of the air.**

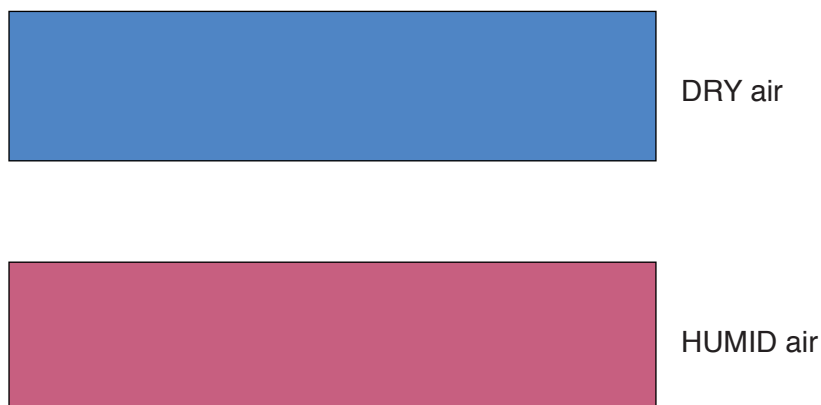


Table 1.1 for Question 1

## Results of students' measurements

| Measurement 1 | Measurement 2 | Measurement 3 | Measurement 4 | Measurement 5 | Average |
|---------------|---------------|---------------|---------------|---------------|---------|
|---------------|---------------|---------------|---------------|---------------|---------|

## Site A

|                                |    |    |    |    |    |      |
|--------------------------------|----|----|----|----|----|------|
| Percentage of vegetation cover | 36 | 20 | 8  | 38 | 19 | 24.2 |
| Percentage of bare ground      | 64 | 80 | 92 | 62 | 81 | 75.8 |
| Humidity measurement (seconds) | 60 | 52 | 46 | 49 | 56 | 52.6 |
| Infiltration time (seconds)    | 36 | 40 | 58 | 60 | 44 | 47.6 |

## Site B

|                                |     |     |     |     |            |       |
|--------------------------------|-----|-----|-----|-----|------------|-------|
| Percentage of vegetation cover | 65  | 48  | 68  | 28  | 12         | 44.2  |
| Percentage of bare ground      | 35  | 52  | 32  | 72  | 88         | 55.8  |
| Humidity measurement (seconds) | 100 | 175 | 135 | 129 | <b>125</b> | 132.8 |
| Infiltration time (seconds)    | 25  | 35  | 21  | 48  | 52         |       |

## Site C

|                                |    |    |           |     |           |      |
|--------------------------------|----|----|-----------|-----|-----------|------|
| Percentage of vegetation cover | 72 | 68 | <b>80</b> | 57  | 65        | 68.4 |
| Percentage of bare ground      | 28 | 32 | <b>20</b> | 43  | 35        | 31.6 |
| Humidity measurement (seconds) | 96 | 90 | 103       | 115 | 84        | 97.6 |
| Infiltration time (seconds)    | 20 | 28 | 25        | 22  | <b>30</b> | 25.0 |

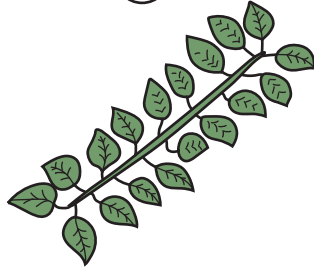
Fig. 1.5 for Question 1

Species of vegetation

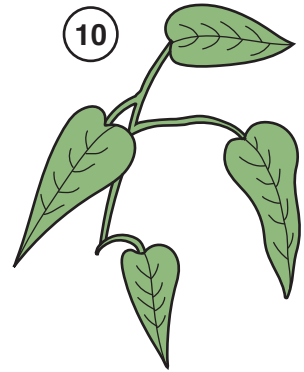
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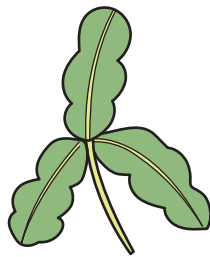
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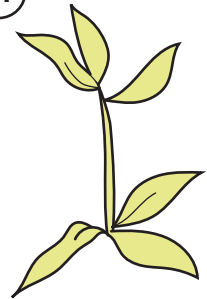
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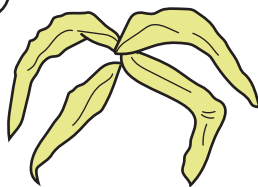
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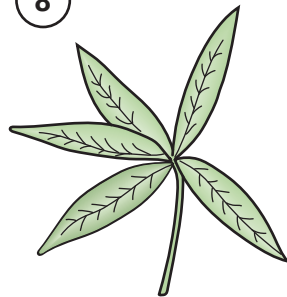
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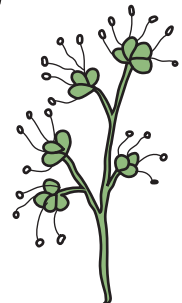
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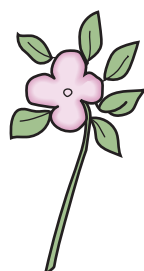
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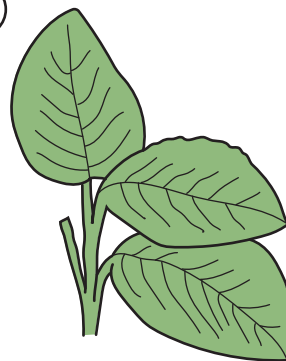
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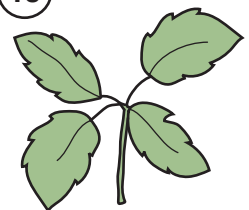
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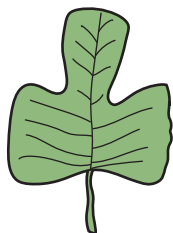


Table 1.2 for Question 1

## Different species\* identified by students

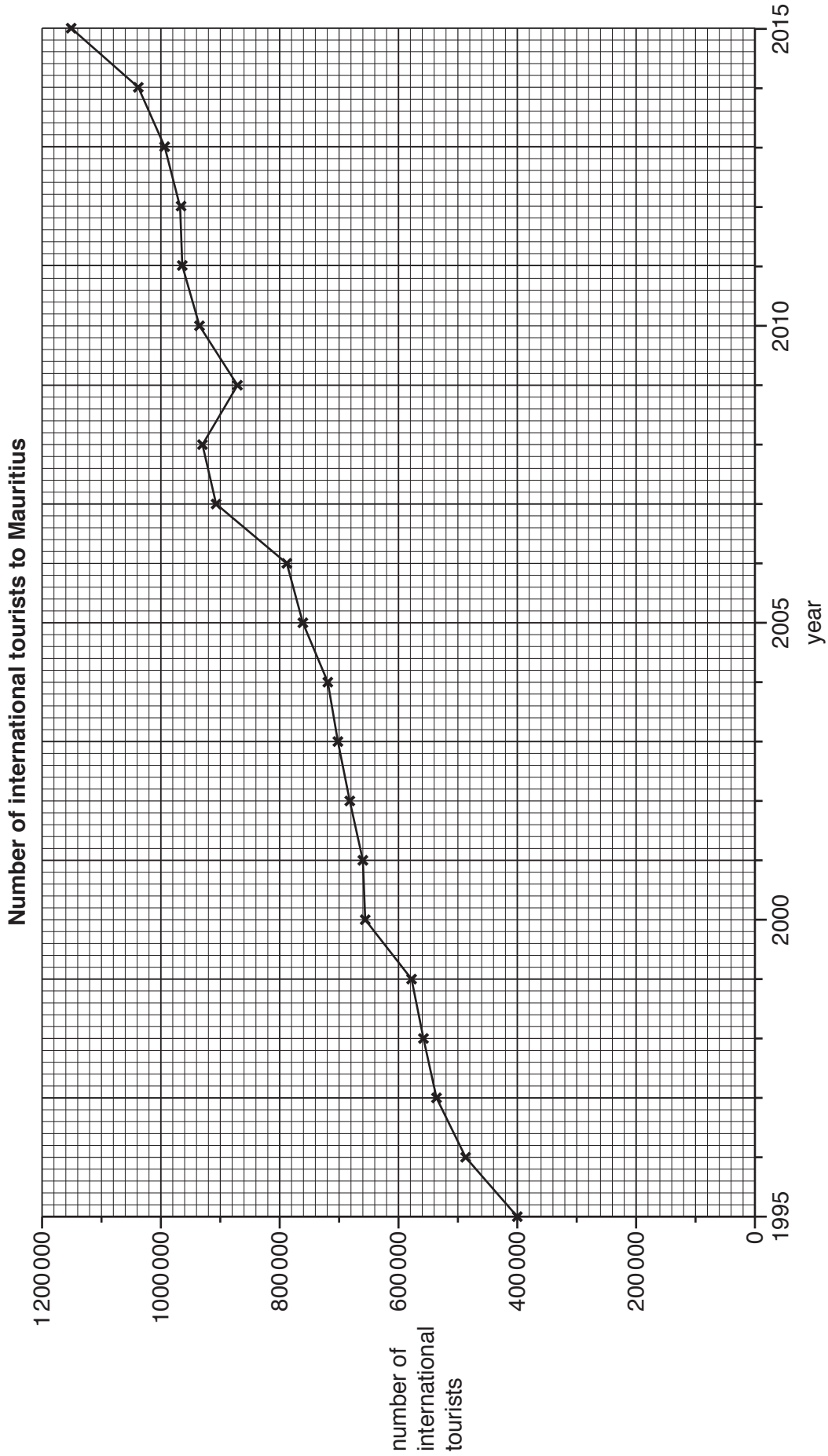
| Species reference number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|--------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|
| Site A                   | ✓ | ✓ |   |   |   | ✓ |   | ✓ |   | ✓  |    | ✓  |    |
| Site B                   | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |   | ✓ |    | ✓  |    |    |
| Site C                   | ✓ | ✓ | ✓ | ✓ |   |   | ✓ | ✓ | ✓ |    | ✓  |    | ✓  |

\*Species reference number in Fig. 1.5

**Key**

✓ species seen at the site

Fig. 2.1 for Question 2





## Fig. 2.2 for Question 2

## Tourist questionnaire

We are doing a tourism survey as part of our *Geography* fieldwork. Please answer the following questions.

1. Which continent do you come from?

- |                          |             |                          |               |                          |               |
|--------------------------|-------------|--------------------------|---------------|--------------------------|---------------|
| <input type="checkbox"/> | Asia        | <input type="checkbox"/> | Africa        | <input type="checkbox"/> | Europe        |
| <input type="checkbox"/> | Australasia | <input type="checkbox"/> | North America | <input type="checkbox"/> | South America |

2. Which of the following physical landscape attractions are you visiting in Mauritius?

- |                          |                                  |                          |                           |
|--------------------------|----------------------------------|--------------------------|---------------------------|
| <input type="checkbox"/> | Black River Gorges National Park | <input type="checkbox"/> | Casela Bird Park          |
| <input type="checkbox"/> | Chamarel coloured earths         | <input type="checkbox"/> | Grand Baie beach          |
| <input type="checkbox"/> | Ile aux Cerfs                    | <input type="checkbox"/> | National Botanical Garden |
| <input type="checkbox"/> | Rochester Falls                  |                          |                           |

3. Which of the following human landscape attractions are you visiting in Mauritius?

- |                          |                       |                          |                      |
|--------------------------|-----------------------|--------------------------|----------------------|
| <input type="checkbox"/> | Cap Malheureux church | <input type="checkbox"/> | Chamarel distillery  |
| <input type="checkbox"/> | Fort Adelaide         | <input type="checkbox"/> | Flic-en-Flac         |
| <input type="checkbox"/> | Grand Bassin temples  | <input type="checkbox"/> | Le Caudan waterfront |
| <input type="checkbox"/> | Port Louis market     |                          |                      |

4. Overall which attracted you most to Mauritius?

- |                          |                                |                          |                             |
|--------------------------|--------------------------------|--------------------------|-----------------------------|
| <input type="checkbox"/> | Physical landscape attractions | <input type="checkbox"/> | Human landscape attractions |
|--------------------------|--------------------------------|--------------------------|-----------------------------|

Thank you for your time.



Table 2.2 for Question 2

## Answers to Questions 2 and 3 of the tourist questionnaire

| <b>Q2 Physical landscape attractions</b> | <b>Number of visits</b> |
|------------------------------------------|-------------------------|
| Black River Gorges National Park         | 30                      |
| Casela Bird Park                         | <b>34</b>               |
| Chamarel coloured earths                 | 67                      |
| Grand Baie beach                         | 49                      |
| Ile aux Cerfs                            | 51                      |
| National Botanical Garden                | 38                      |
| Rochester Falls                          | 21                      |
| Total                                    | 290                     |

| <b>Q3 Human landscape attractions</b> | <b>Number of visits</b> |
|---------------------------------------|-------------------------|
| Cap Malheureux church                 | 22                      |
| Chamarel distillery                   | 12                      |
| Fort Adelaide                         | 25                      |
| Flic-en-Flac                          | 28                      |
| Grand Bassin temples                  | <b>45</b>               |
| Le Caudan waterfront                  | 39                      |
| Port Louis market                     | 33                      |
| Total                                 | 204                     |

## Fig. 2.5 for Question 2

## Resident questionnaire

We are doing a tourism survey as part of our *Geography* fieldwork. Please answer the following questions.

1. Do you live in Mauritius?

Yes

No (Finish interview if 'No')

2. Which are the three main benefits of tourism in Mauritius?

Number your first, second and third choices '1', '2' and '3'.

More jobs and income  Improved standard of living

More modern services  Cleaner environment

Improved transport  More global awareness

Reduction in crime  More goods in shops

3. Which are the three main disadvantages of tourism in Mauritius?

Number your first, second and third choices '1', '2' and '3'.

Noise pollution  Air pollution

Traffic congestion  More crime

Decline of traditional culture  Destruction of natural environment

More litter  Increase in cost of living

4. Overall which do you think are greater in Mauritius?

Benefits of tourism

Disadvantages of tourism

Thank you for your time.

Table 2.3 for Question 2

## Results of resident questionnaire

| <b>Question 2: Main benefits of tourism</b> | <b>First choice</b> | <b>Second choice</b> | <b>Third choice</b> | <b>Total index score</b> |
|---------------------------------------------|---------------------|----------------------|---------------------|--------------------------|
| More jobs and income                        | 39                  | 25                   | 11                  | 178                      |
| Improved standard of living                 | 15                  | 20                   | 28                  | 113                      |
| More modern services                        | 4                   | 10                   | 13                  | 45                       |
| Cleaner environment                         | 5                   | 2                    | 3                   | 22                       |
| Improved transport                          | 12                  | 10                   | 14                  | <b>70</b>                |
| More global awareness                       | 3                   | 19                   | 11                  | 58                       |
| Reduction in crime                          | 10                  | 9                    | 7                   | 55                       |
| More goods in shops                         | 12                  | 5                    | 13                  | 59                       |

| <b>Question 3: Main disadvantages of tourism</b> | <b>First choice</b> | <b>Second choice</b> | <b>Third choice</b> | <b>Total index score</b> |
|--------------------------------------------------|---------------------|----------------------|---------------------|--------------------------|
| Noise pollution                                  | 7                   | 12                   | 10                  | 55                       |
| Air pollution                                    | 26                  | 16                   | 12                  | <b>122</b>               |
| Traffic congestion                               | 27                  | 23                   | 18                  | 145                      |
| More crime                                       | 5                   | 7                    | 8                   | 37                       |
| Decline of traditional culture                   | 11                  | 8                    | 16                  | 65                       |
| Destruction of natural environment               | 5                   | 12                   | 15                  | 54                       |
| More litter                                      | 7                   | 14                   | 12                  | 61                       |
| Increase in cost of living                       | 12                  | 8                    | 9                   | 61                       |

| <b>Question 4: Overall effect of tourism</b> | <b>Answers</b> |
|----------------------------------------------|----------------|
| Benefits                                     | 87             |
| Disadvantages                                | 13             |

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