

SECTION A

Answer ALL questions in this section.

Write your answers in the spaces provided in this booklet.

1. (a) The Caribbean region often experiences outbreaks of dengue, and sometimes malaria.

(i) Name the vector that transmits

a) dengue Aedes aegypti mosquito.

b) malaria. Anopheles mosquito.

( 2 marks)

(ii) The organism that causes malaria is plasmodium.

Name the organism that causes dengue.

Plasmodia virus.

( 1 mark )

(iii) State TWO signs or symptoms of dengue.

Pain behind the eyeballs and colic pains in the lower back area are two symptoms of dengue.

( 2 marks)

(iv) Identify ONE method of preventing the spread of dengue.

Get rid of all containers, pans, tires, etc... that can  
capture stagnant water so that the mosquito does not lay its egg.

( 1 mark )

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- (b) Figure 1 shows the trend in tourist arrivals for two Caribbean countries, and Table 1 shows the data for the outbreak of the flu in Country X and Country Y.

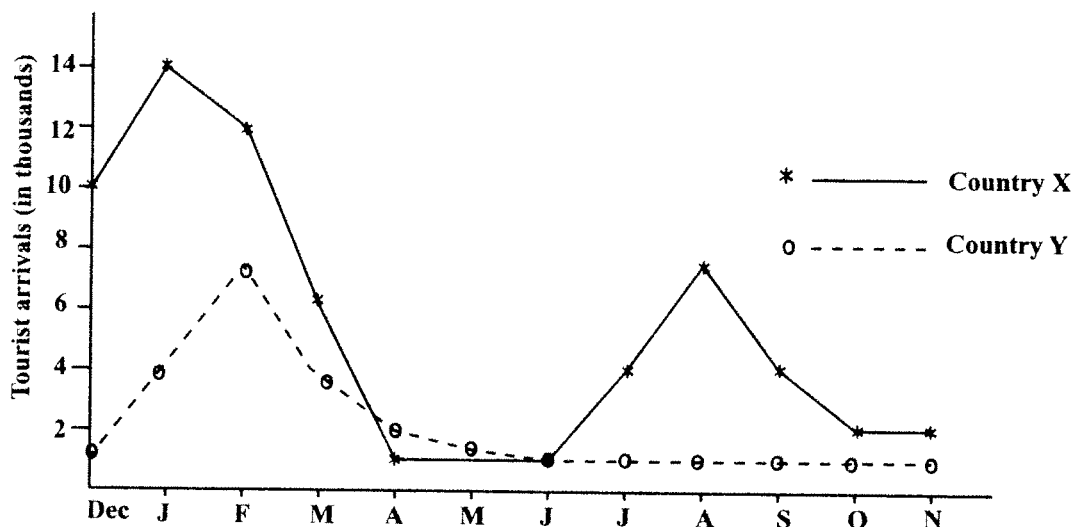


Figure 1. Tourist arrivals for Country X and Country Y

TABLE 1: NUMBER OF PERSONS AFFECTED BY THE FLU EACH MONTH

Month	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
Country X	300	600	1200	900	600	300	100	50	50	400	100	50
Country Y	200	400	800	1600	120	700	400	100	50	50	50	50

- (i) The data for Country Y in Table 1 has been plotted on Figure 2 on page 5. Plot the data for Country X on the same grid in Figure 2. ( 4 marks)
- (ii) Describe the trend in the population contracting the flu virus in Country X and Country Y.
- Country X: In the month of February the most people contracted the flu viruses and then that figure dropped but slightly rose again in September.
- Country Y: In the month of March the most people contracted the flu virus, followed by a significant fall to 50 people in August up to November.
- ( 3 marks)
- (iii) Examine the graphs in Figure 1 and Figure 2. Describe the relationship between tourist arrivals and the spread of the flu virus in both countries.
- In both countries, one month after tourists arrivals the number of people who had the flu virus rose to its peak for that year and then had fall. Country X, though suffered a slight increase in flu viruses a month after <sup>the 2nd</sup> tourist arrivals but country Y did not since there were no arrivals
- ( 2 marks)

Total 15 marks

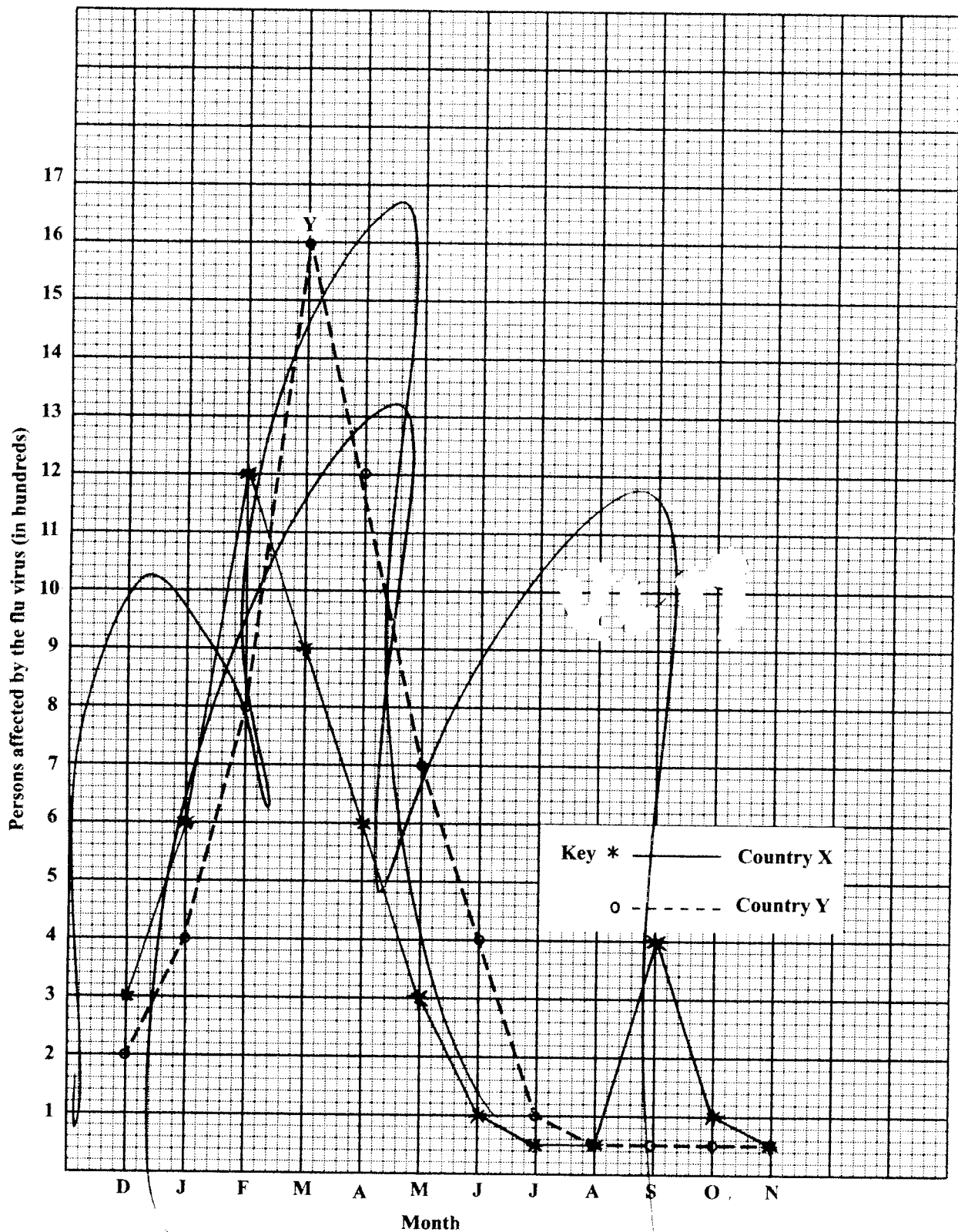


Figure 2. Number of persons affected by the flu virus each month

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## **Human and Social Biology**

### **Paper 02**

#### Question 1

Overall quality: very good (excellent)

- (a) (i) The correct response was given:-the spelling of the terms could be improved so that the quality would be improved.
  - (ii) The response has the correct organism identified but this was marred by reference to “plasmodia” which suggested that the student was referring to the causative agent of malaria-plasmodium.
  - (iii) and (iv) Very well expressed and thorough.
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- (b) (i) Points were plotted accurately and neatly and joined with a clean line.
  - (ii) The salient features of the graphs were described cogently.
  - (iii) The student adeptly analysed the graphs and identified that the increase in the incidence of the flu occurred one month after the peak in the arrival of the tourists in both countries.