



BEDOK VIEW SECONDARY SCHOOL PRELIMINARY EXAMINATION 2022

CANDIDATE
NAME

REGISTER
NUMBER

CLASS

HUMANITIES Secondary Four Normal (Academic) Paper 2 Geography

2175/02
29 July 2022
1 hour 40 minutes

Candidates answer on the Question Paper.

READ THESE INSTRUCTIONS FIRST

Write your index number and name on all the work you hand in.
Write in dark blue or black pen.
You may use a HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.

Section A

Answer **one** question.

Section B

You must answer Question 3.

Section C

Answer **one** question.

Candidates should support their answers with the use of relevant examples.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

The number of marks is given in brackets [] at the end of each question or part question.

For Examiner's use		
Section A		/ 13
Section B		/ 12
Section C		/ 25
Total		/ 50
% / Grade		/

Setter: Ms Victoria Ching

Parent's / Guardian's Signature:

This document consists of 22 printed pages.

[Turn over

Section A

Answer **either** Question 1 **or** Question 2 from this section.

- 1 A group of students conducted a tourism study in Kilauea, a shield volcano in the Hawai'i Volcanoes National Park as shown in Fig. 1.

Map of Kilauea in Hawai'i Volcanoes National Park

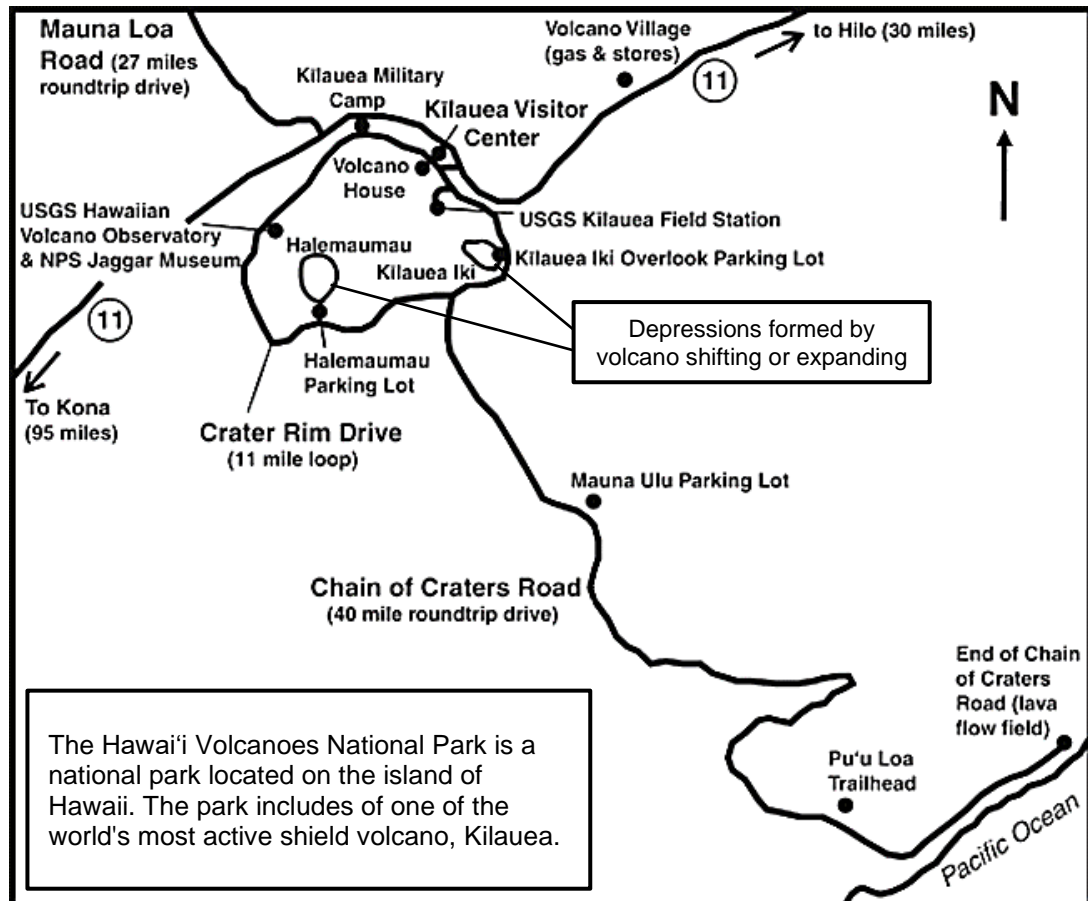


Fig. 1

- (a) Using information from Fig. 1, suggest a hypothesis that the students can use to investigate the reasons why tourists are attracted to the Hawai'i Volcanoes National Park.

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 [1]

- (b) The students devised a questionnaire as shown in Fig. 2 and used systematic sampling to conduct the study on 200 respondents.

Questionnaire on Hawai'i Volcanoes National Park

VISITOR QUESTIONNAIRE	
<p>We are a group of Geography students conducting a study on tourism in Hawai'i Volcanoes National Park. We value your opinions and would be grateful if you could take a few minutes to help us with our study.</p>	
<p>Date: _____</p> <p>Time: _____</p>	<p>1. Age group</p> <p><input type="checkbox"/> ≤ 20 years old</p> <p><input type="checkbox"/> 21 to 40 years old</p> <p><input type="checkbox"/> 41 to 60 years old</p> <p><input type="checkbox"/> ≥ 61 years old</p>
<p>2. Gender</p> <p><input type="checkbox"/> Male</p> <p><input type="checkbox"/> Female</p>	
<p>3. How long is your visit to Hawai'i Volcanoes National Park?</p> <p><input type="checkbox"/> Half a day</p> <p><input type="checkbox"/> 1 day</p> <p><input type="checkbox"/> 2 days</p> <p><input type="checkbox"/> 3 days</p> <p><input type="checkbox"/> More than 3 days</p> <p><input type="checkbox"/> Others: _____</p>	
<p>4. Rate the ease of accessibility to Hawai'i Volcanoes National Park:</p> <p><input type="checkbox"/> 1 – Not accessible</p> <p><input type="checkbox"/> 2 – Somewhat accessible</p> <p><input type="checkbox"/> 3 – Moderately accessible</p> <p><input type="checkbox"/> 4 – Accessible</p> <p><input type="checkbox"/> 5 – Very accessible</p>	
<p>5. Why do you visit Hawai'i Volcanoes National Park?</p> <p>_____</p> <p>_____</p> <p>_____</p>	

Fig. 2

- (i) Explain how systematic sampling is carried out.

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[Turn over

- (ii) The students decided to carry out the questionnaire at the Kilauea Visitor Center. Do you think this is an ideal site? Give reasons to justify your answer.

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- (iii) Using Fig. 2, describe the features of the questionnaire and the advantages of using different types of questions.

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- (c) The students collated the data on the tourists' length of stay at the park and used Table 1 and Fig. 3 to represent their data.

Table 1

Tourists' Length of stay

Length of stay	Half a day	1 day	2 days	3 days	> 3 days
Number of tourists	104	43	28	17	8

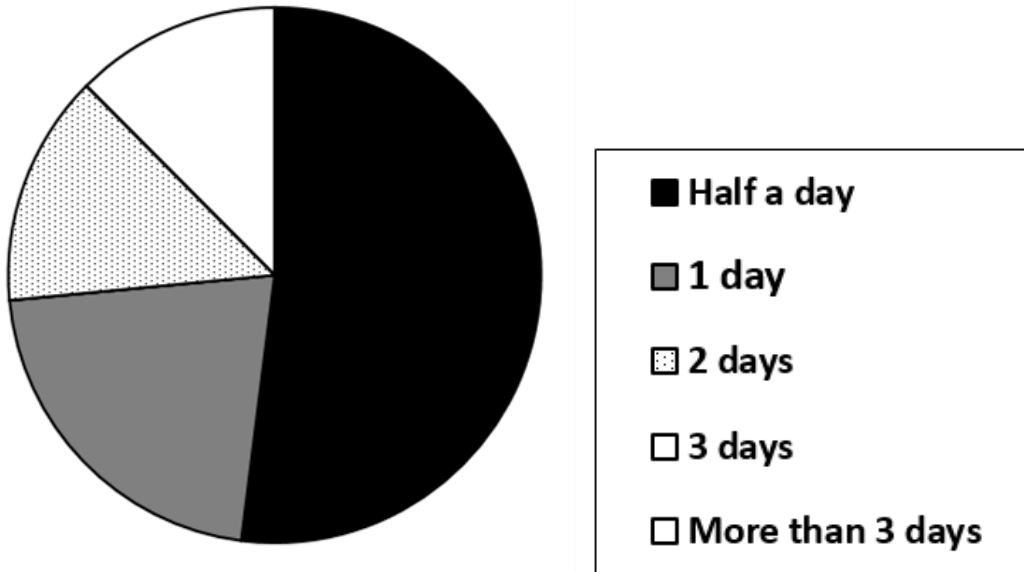


Fig. 3

- (i) Using information from Table 1, complete the pie chart for tourists' length of stay for 3 days and more than 3 days and use a suitable shading for the pie chart and legend on Fig. 3. [2]
- (ii) Which of the data representation method, Table 1 or Fig. 3, is more useful in helping the students to draw conclusions? Give reasons to support your answer.

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- 2 A group of students were investigating the weather in east Japan. They collected data from locations Nebukawa and Odawarajo during the day.

Study Tables 2 and 3, which show the relative humidity and temperature results collected by the students, and Fig. 4, which shows a satellite map of the two locations.

Table 2

Results of relative humidity and temperature in Nebukawa

	Mon	Tue	Wed	Thu	Fri
Relative Humidity (%)	80.5	80.5	84	81	82
Highest Temperature (°C)	29	29	29	28	30
Lowest Temperature (°C)	28	26	27	26	28
Mean Temperature (°C)	28.5	27.5	28	27	29

Table 3

Results of relative humidity and temperature in Odawarajo

	Mon	Tue	Wed	Thu	Fri
Relative Humidity (%)	78	81	75.5	77	73
Highest Temperature (°C)	32	32	31	33	32
Lowest Temperature (°C)	27	29	28	29	28
Mean Temperature (°C)	29.5	30.5	29.5	31	30

A satellite image of east Japan



Fig. 4

- (a) Suggest a guiding question that the students can investigate.

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 [1]

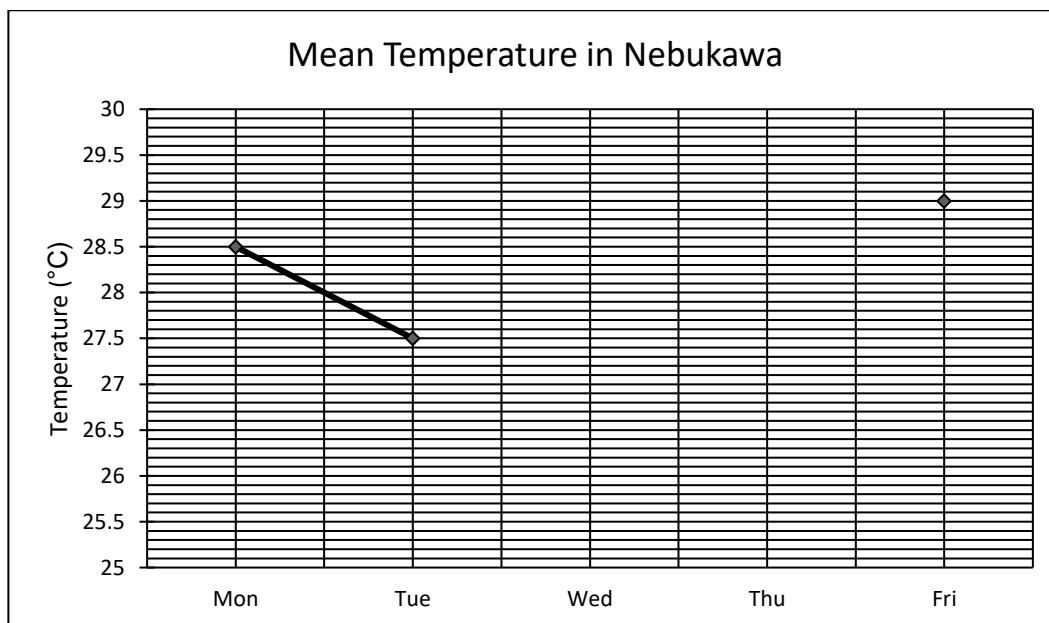
- (b) From Tables 2 and 3 and Fig. 4, the students came up with a hypothesis: "Relative humidity is higher when the location is closer to the coast".

To what extent is the hypothesis true? Support your answer with evidence.

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 [3]

- (c) The students wanted to show the mean temperature of Nebukawa on a line graph. Using data from Table 2, complete the line graph below.



[2]

- (d) Describe the steps students should take to measure relative humidity.

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- (e) Suggest how the students could collect more accurate and reliable temperature data.

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Section B

Answer Question 3 from this section.

3 (a) Study Fig. 5, which shows a map of tourist areas in Kenya.

Map of Tourist Areas in Kenya

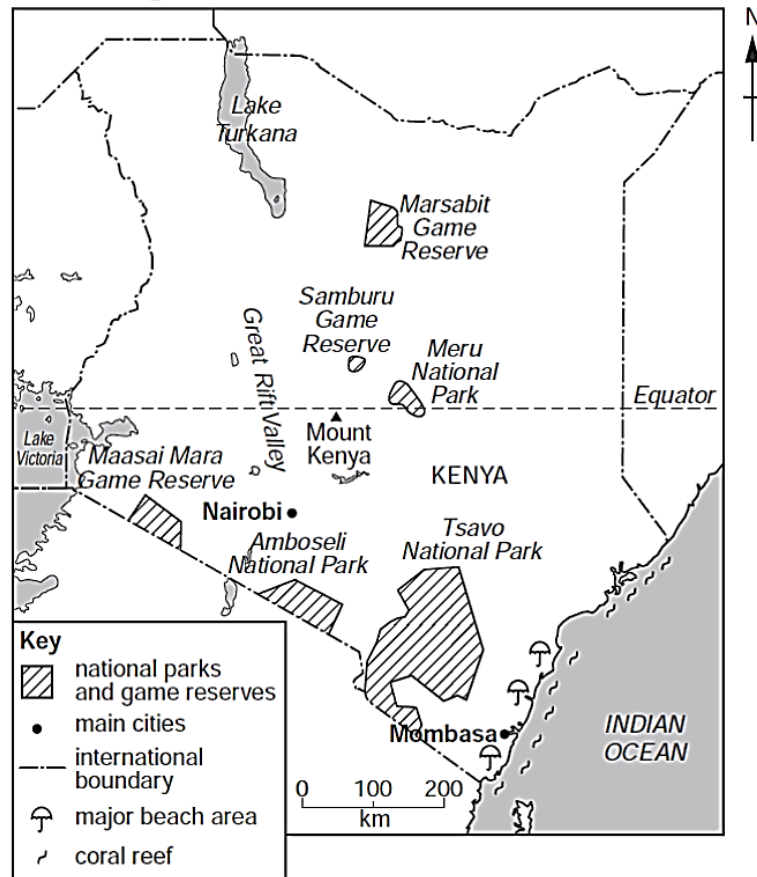


Fig. 5

Using evidence from Fig. 5 only, explain why tourists visit Kenya.

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2018

non-religious

religious

cultural

2020

non-religious

religious

cultural

Describe the changes between 2018 and 2020 shown in Fig. 6.

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- (c)** 'Planning authorities play a greater role in managing the impacts of tourism than local communities.'

How far do you agree with this statement? Give examples to support your answer.

[6]

Section C

Answer **either** Question 4 **or** Question 5 from this section.

- 4 (a)** Describe one similarity and one difference between tectonic and climate-related hazards.

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- (b)** Study Fig. 7, which shows the map of Asia and Australia from June to September.

Map of Asia and Australia from June to September

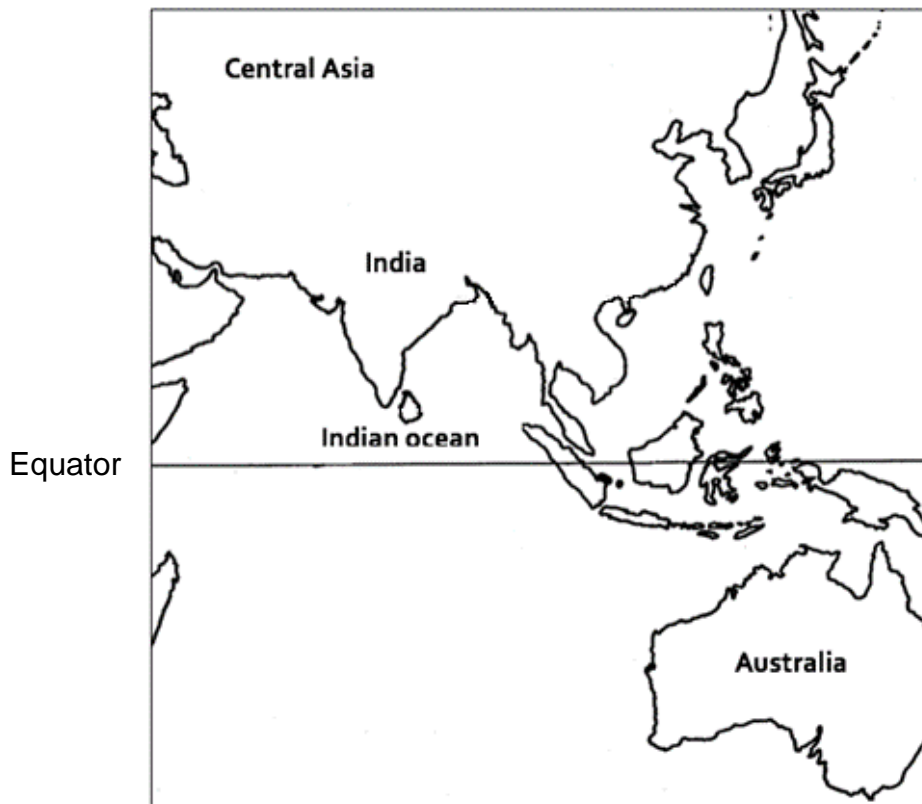


Fig. 7

- (i)** On Fig. 7, locate and label the following features:
- High pressure
 - Low pressure
 - Arrow to indicate the wind direction above the equator
 - Arrow to indicate the wind direction below the equator

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- (ii) With reference to Fig. 7, explain why there will be heavy rainfall in India from June to September.

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- (d) Draw an annotated diagram to explain the formation of rift valley and block mountain.

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- (e) 'A high magnitude earthquake is the main cause of great damage.'

How far do you agree with this statement? Give examples to support your answer.

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[Turn over

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- 5 (a) Study Fig. 9, which shows the relative ages of the volcanoes (in million) in the Atlantic Ocean.

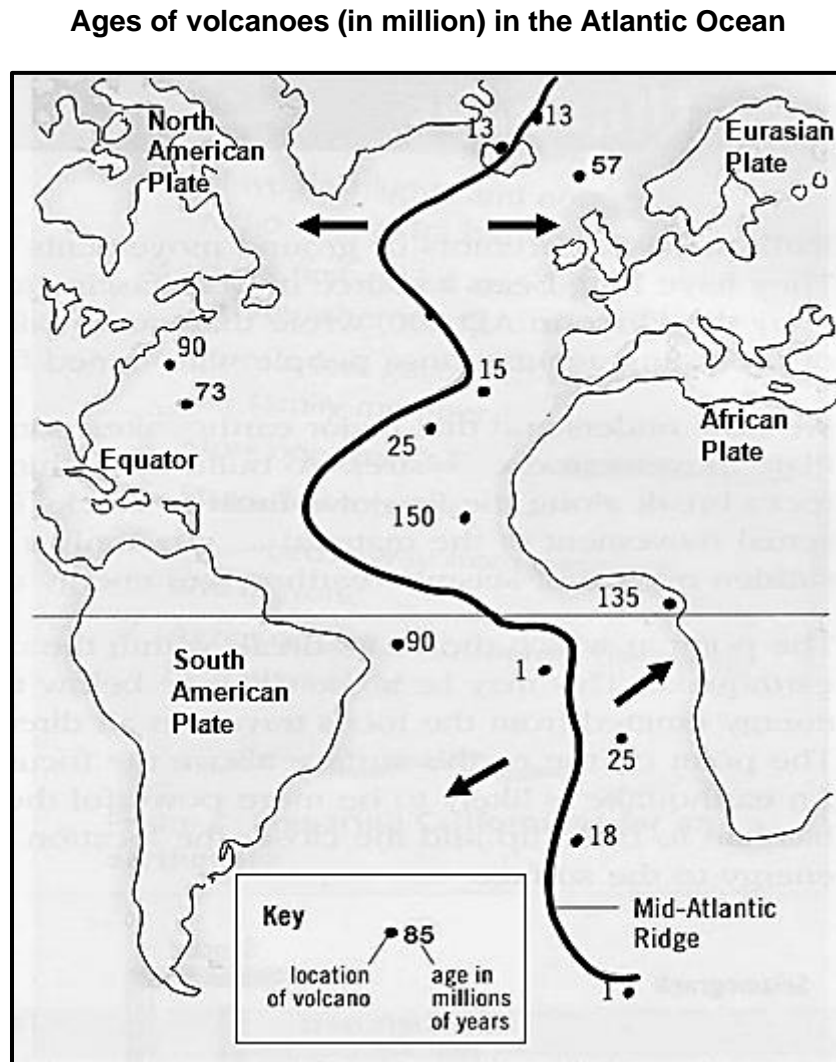


Fig. 9

- (i) With reference to Fig. 9, describe the distribution of the different ages of volcanoes from the Mid-Atlantic Ridge.

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- (ii) Using evidence from Fig. 9, explain the tectonic movement in the Mid-Atlantic Ridge and its associated landforms.

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- (b) Explain how and why plates move. You may draw an annotated diagram to help your explanation.

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(c) Study Fig. 10, which shows the structure of a volcano.

Structure of a volcano

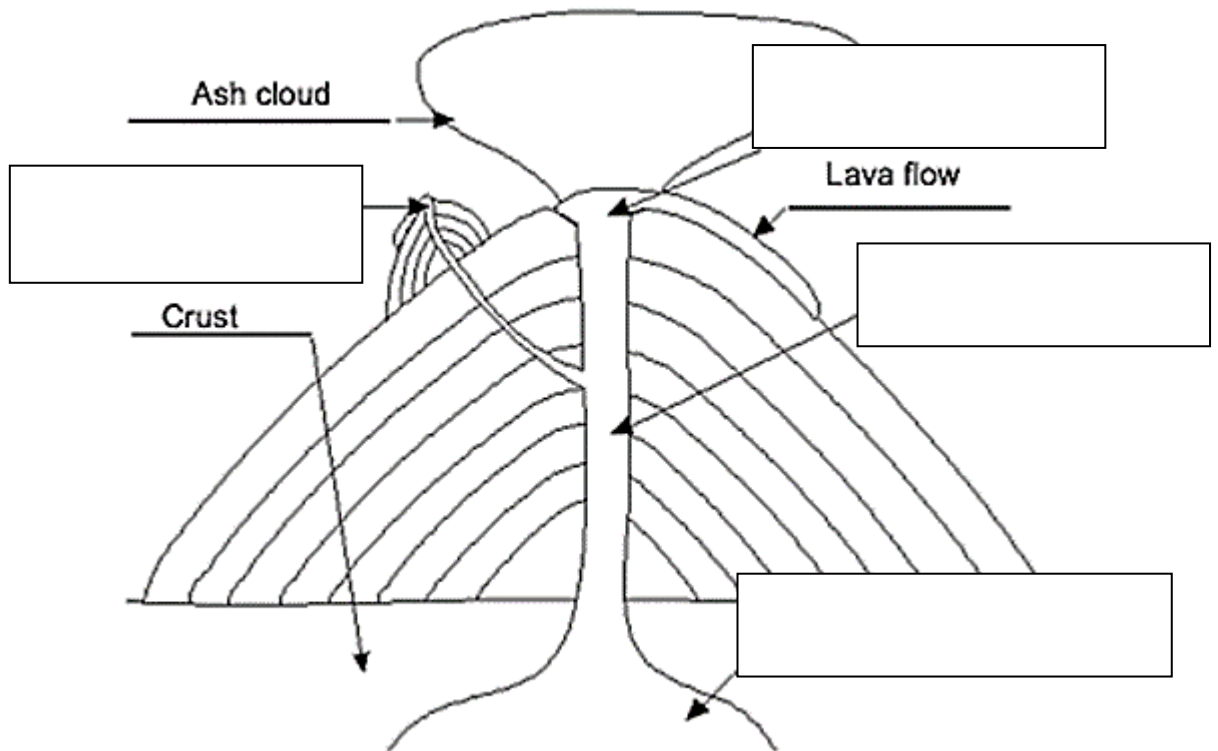


Fig. 10

On Fig. 10, label the following features in the boxes provided.

- Secondary cone
- Crater
- Vent
- Magma Chamber

[4]

(d) Explain how the viscosity of lava influences the characteristics of shield volcanoes.

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- (e)** 'Volcanoes are only a risk to people living nearby.'

How far do you agree with this statement? Give examples to support your answer.

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Additional Page

If you use the following lined pages to complete the answer(s) to any questions, the question number(s) must be clearly shown.

[illegible]

Additional Page

If you use the following lined pages to complete the answer(s) to any questions, the question number(s) must be clearly shown.

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Copyright Acknowledgements:

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|------------|---------|---|
| Question 1 | Fig. 1 | http://www.trusler.net/PGSystem/Notes/2003Hawaii/volcanoes_national_park_1.gif |
| Question 2 | Fig. 4 | https://www.google.com/maps/place/Odawarajo |
| Question 3 | Fig. 5 | https://www.shootravel.com/image/map-of-kenya-detailed.jpg |
| | Fig. 6 | https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7896876/figure/Fig4/ |
| Question 4 | Fig. 7 | https://t4.ftcdn.net/jpg/01/89/32/27/360_F_189322774_WGs7x8e3ra1gshY0tyUqSc9ADYvmELIb.jpg |
| | Fig. 8 | http://www.weather.gov.sg/wp-content/uploads/2015/04/News-15-apr.png |
| Question 5 | Fig. 9 | IGCSE Geography. Cambridge University Press |
| | Fig. 10 | https://www.enchantedlearning.com/subjects/volcano/gifs/volcanodiagram.GIF |