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SECTION A

Answer **EITHER** Question 1 **OR** Question 2.

If you answer Question 1 put a cross in this box .

1. (a) Study Figure 1 which shows the main characteristics of three different types of volcano.

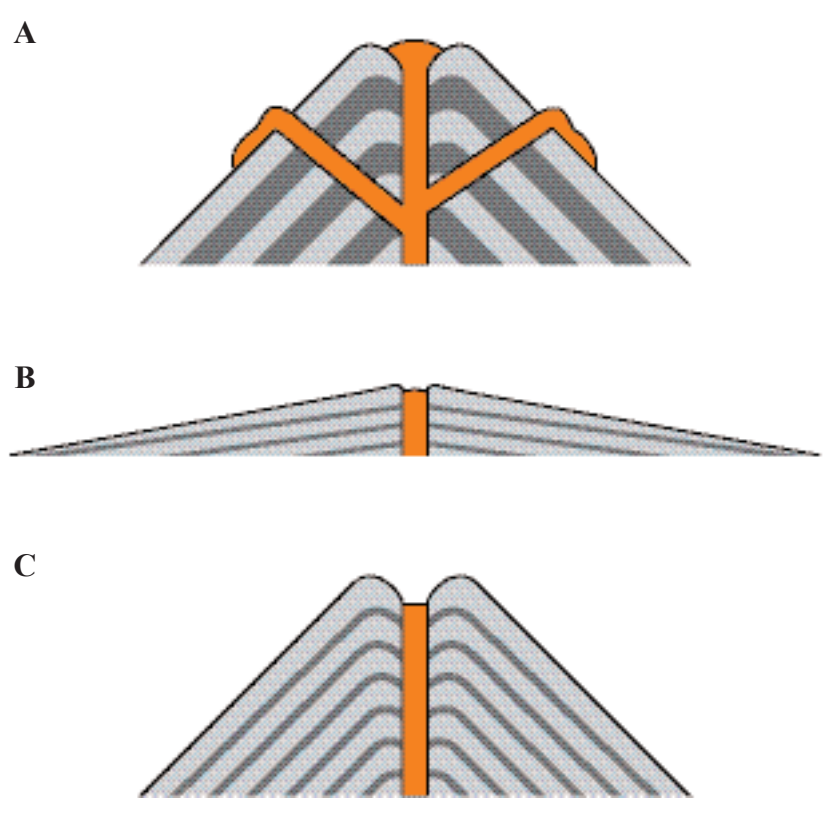


Figure 1

(i) Name volcano type A.

..... (1)

(ii) Where would volcano type B be found?

..... (1)



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(iii) Contrast the shapes of volcano types B and C.

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(3)

(iv) Explain the differences identified in (a) (iii).

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(3)

(b) (i) Briefly explain why tectonic plates move.

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(2)



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(ii) Explain how ONE piece of evidence supports the view that tectonic plates move.

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If you answer Question 2 put a cross in this box .

2. (a) Study Figure 2 which is a photograph of a piece of weathered basalt.



Figure 2

(Photograph courtesy of Andy Palmer)

(i) Define the term **weathering**.

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(2)

(ii) Describe the shape of the fragments of weathered basalt.

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(2)



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(iii) Describe and explain how ONE **physical** process is likely to have weathered this basalt.

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(c) Explain how the impact of weathering on human activity may be:

1. positive

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(3)

2. negative.

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(3)

Q2

(Total 20 marks)

TOTAL FOR SECTION A: 20 MARKS



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SECTION B

Answer **EITHER** Question 3 **OR** Question 4.

If you answer Question 3 put a cross in this box .

3. (a) Study Figure 3 which shows the stores of water in the global hydrological cycle.

| STORE | km ³ x 10 ³ | % TOTAL |
|--------------|-----------------------------------|---------|
| Atmosphere | 13 | 0.001 |
| Groundwater | 8,200 | 0.592 |
| Ice sheets | 27,500 | 1.984 |
| Land surface | 36,186 | 2.637 |
| X | 1,300,000 | 94.759 |

Figure 3

(i) Identify store X.

..... (1)

(ii) Define the term **groundwater** store.

.....
.....
.....
..... (2)

(iii) Suggest two ways in which water can be stored on the land surface.

1
.....
2
..... (2)



Leave blank

(iv) Briefly explain how water is transferred from the land surface store to the atmosphere store.

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(3)

(b) Explain:

(i) how **orographic** processes lead to the formation of cloud

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(3)

(ii) how raindrops are formed.

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(3)



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If you answer Question 4 put a cross in this box .

4. (a) Study Figure 4 which shows rainfall and discharge data for the River Otter, Devon.

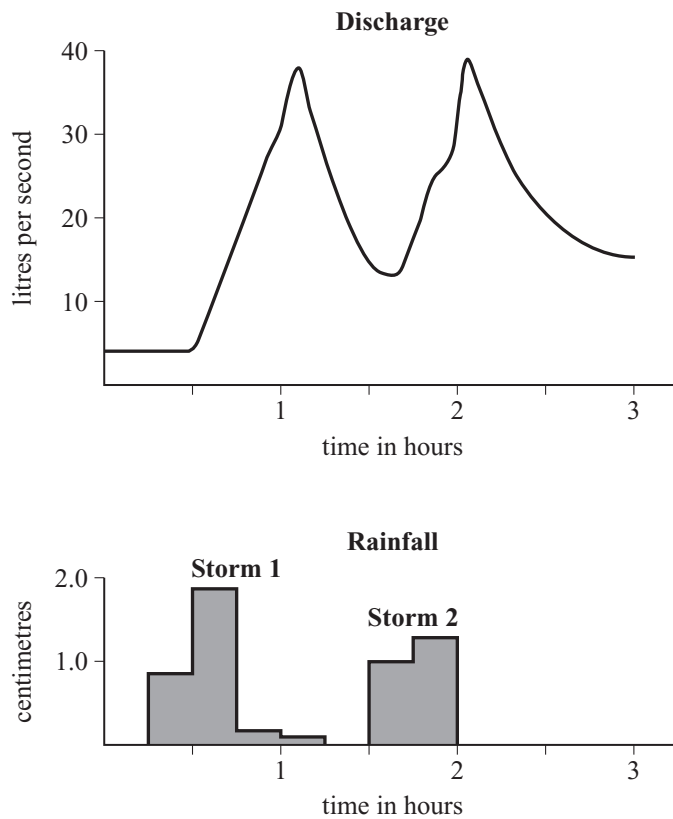


Figure 4

(Source: P.E. Eyre and G.T. Gower, *Basic Processes in Physical Geography*, Universal Tutorial Press, 1983)

(i) State the equation used to calculate discharge.

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(2)



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(ii) Describe the pattern of discharge shown.

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(3)

(iii) Suggest how the pattern of discharge may have been influenced by:

1. relief

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(2)

2. precipitation.

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(2)

(b) (i) Name and outline two processes by which rivers transport their load.

1.
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2.
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(2)



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(ii) Describe and explain how the **shape** and **size** of load particles typically change with distance downstream.

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(3)



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SECTION C

Answer **EITHER** Question 5 **OR** Question 6.

If you answer Question 5 put a cross in this box .

- 5. (a) Study Figure 5 which shows selected changes in ground cover on an area of sand dunes.

| Year | % bare sand | % sea buckthorn |
|------|-------------|-----------------|
| 1949 | 31.2 | 1.6 |
| 1956 | 30.9 | 2.8 |
| 1963 | 30.7 | 5.5 |
| 1970 | 15.1 | 8.1 |
| 1977 | 11.0 | 9.8 |
| 1984 | 9.3 | 11.3 |
| 1991 | 7.5 | 13.1 |

Figure 5

- (i) Define the term **psammosere**.

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(2)

- (ii) Describe the pattern of change in ‘% bare sand’.

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(3)



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(iii) Suggest how species, such as sea buckthorn, are able to survive in the challenging conditions of a sand dune environment.

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(3)

(b) (i) Name and outline two processes of marine erosion.

1

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2

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(2)

(ii) Explain how **rates** of marine erosion may be decreased by human activity.

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If you answer Question 6 put a cross in this box .

6. (a) Study Figure 6 which shows pebble size data for two sites in Porlock Bay, Somerset.

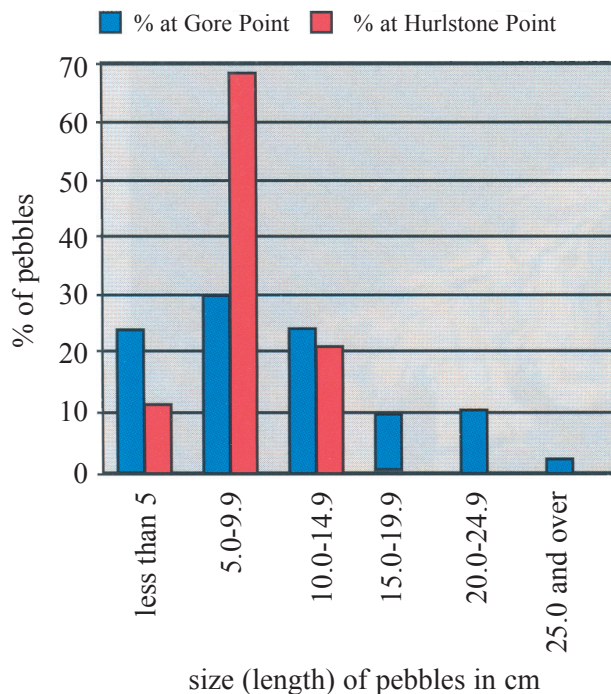


Figure 6

(Source: M. McTernan and H. Wilson, *Field Studies Vol 9, No. 3*, FSC Publications, 1999)

(i) Describe the distribution of pebble sizes at Gore Point.

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(3)



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blank

(ii) Which of the two sites has the greater **range** of pebble size?

..... **(1)**

(iii) State two ways, other than size, in which the pebbles at the two sites may differ.

1.

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2.

..... **(2)**

(iv) Suggest why there are no pebbles longer than 14.9 cm at Hurlstone Point.

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..... **(4)**



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(b) Describe and explain the process of **longshore drift**.

You may use a diagram to help your answer.

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