

Section 3 – answer questions 1-10

Figure 8 is a map showing the geological features of the South American and Nazca plate boundaries.

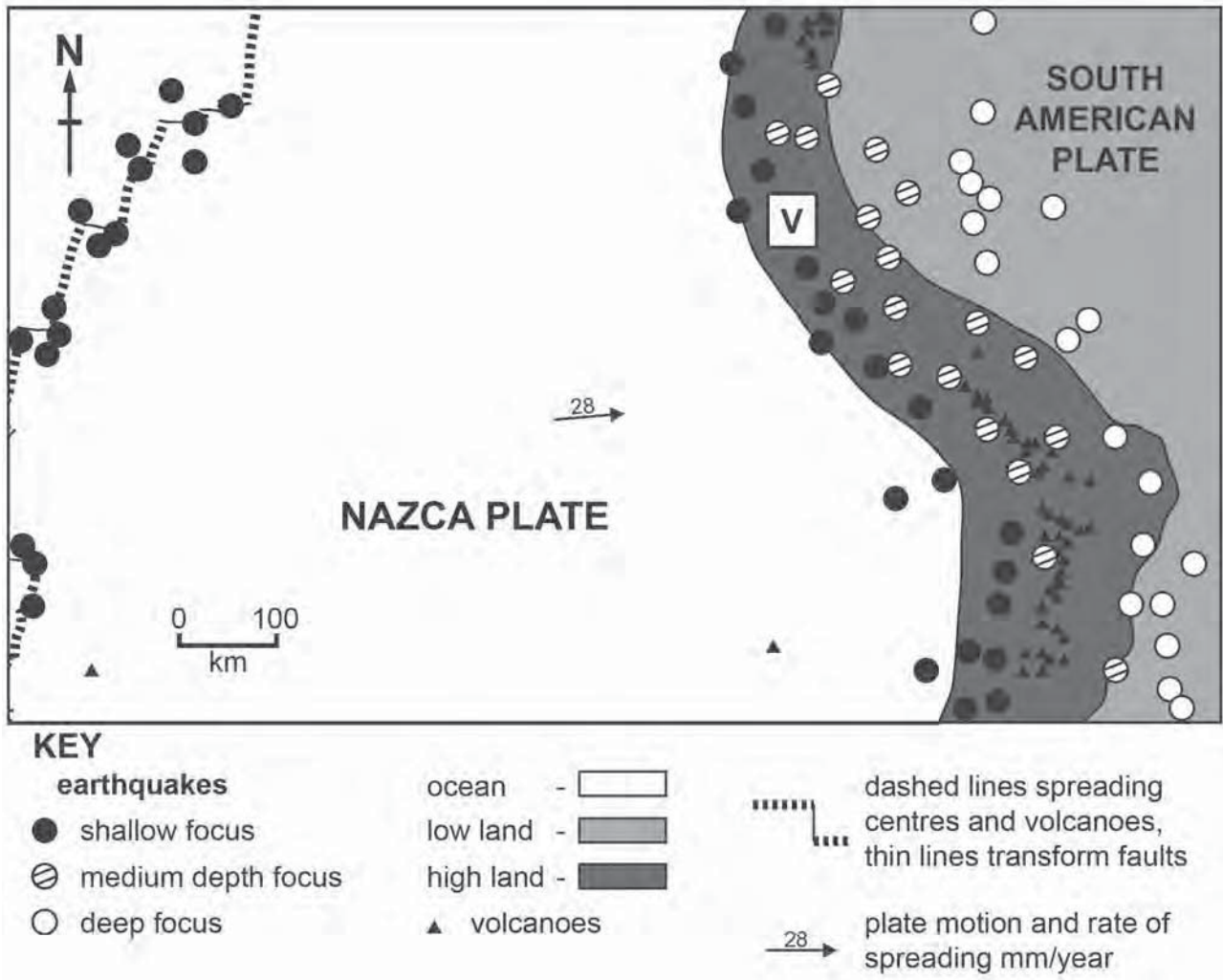


Figure 8

1. State which of the following geological features are present at the **western** boundary of the **Nazca Plate**. Tick (✓) only **two** boxes. [2]

- |                                                  |                          |
|--------------------------------------------------|--------------------------|
| ocean ridge                                      | <input type="checkbox"/> |
| deep, medium depth and shallow focus earthquakes | <input type="checkbox"/> |
| displacement by thrust faults                    | <input type="checkbox"/> |
| mainly andesitic volcanic activity               | <input type="checkbox"/> |
| volcanic island arc                              | <input type="checkbox"/> |
| shallow focus earthquakes only                   | <input type="checkbox"/> |

2. Name the type of plate boundary formed by the **western** boundary of the **Nazca Plate**. Tick (✓) only **one** box. [1]

- |                                                  |                          |
|--------------------------------------------------|--------------------------|
| convergent (destructive) oceanic-oceanic         | <input type="checkbox"/> |
| convergent (destructive) oceanic-continental     | <input type="checkbox"/> |
| divergent (constructive)                         | <input type="checkbox"/> |
| conservative                                     | <input type="checkbox"/> |
| convergent (destructive) continental-continental | <input type="checkbox"/> |

3. State which of the following geological features are present along the boundary between the **Nazca Plate** and the **South American Plate**. Tick (✓) only **two** boxes. [2]

- |                                                  |                          |
|--------------------------------------------------|--------------------------|
| ocean ridge                                      | <input type="checkbox"/> |
| deep, medium depth and shallow focus earthquakes | <input type="checkbox"/> |
| coastal mountain chain                           | <input type="checkbox"/> |
| mainly basaltic volcanic activity                | <input type="checkbox"/> |
| volcanic island arc                              | <input type="checkbox"/> |
| shallow focus earthquakes only                   | <input type="checkbox"/> |

4. Name the type of plate boundary formed between the **Nazca Plate** and the **South American Plate**. Tick (✓) only **one** box. [1]

- convergent (destructive) oceanic-oceanic
- convergent (destructive) oceanic-continental
- divergent (constructive)
- conservative
- convergent (destructive) continental-continental

5. Describe and explain the pattern of earthquake foci along the plate boundary between the **Nazca Plate** and the **South American Plate**. [3]

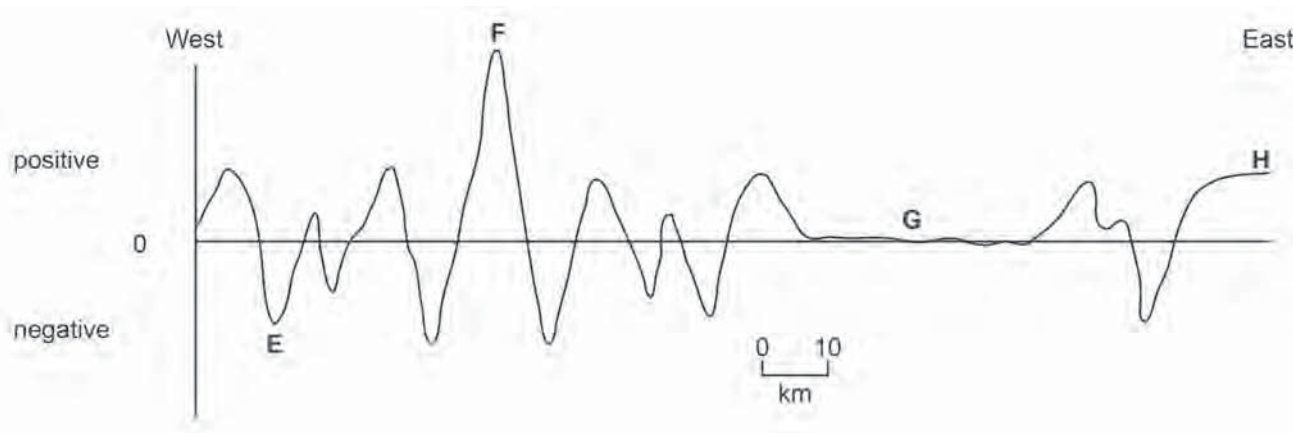
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**Figure 9** shows the results of a magnetic survey measured at right angles across the Mid-Atlantic ridge.



**Figure 9**

6. Letters **E–H** on **Figure 9** represent locations across the Mid-Atlantic ridge. Draw a line from each letter to the most appropriate description of that location. [4]

<b>E</b>	ridge crest
<b>F</b>	ocean trench
<b>G</b>	oldest portion of oceanic crust in this area
<b>H</b>	wide area where there is no magnetic anomaly
	area of reversely magnetised ocean crust

7. State which of the following may contribute to plate movement. Tick (✓) only **two** boxes.

[2]

Examiner  
only

cold rigid continental lithosphere

magnetic stripes

low heat flow at the ocean ridge

thermal convection in the mantle

transform faults

weak partially molten asthenosphere