In the eastern Pacific, hurricanes begin forming by mid-May, while in the Atlantic, Caribbean, and Gulf of Mexico, hurricane development starts in June. For the United States, the peak hurricane threat exists from mid-August to late October although the official hurricane season begins June 1 and ends November 30. Over other parts of the world, such as the western Pacific, hurricanes can occur year-round. Developing hurricanes gather heat and energy through contact with warm ocean waters. The addition of moisture by evaporation from the sea surface powers them like giant heat engines.

a. Name one country affected by hurricanes. ................................................................................................................. 2 marks

b. When is a tropical storm classified as a hurricane? ............................................................................................................. 2 marks

c. What happens to the hurricane as it comes into contact with the warm ocean waters? .......................................................... 2 marks
d. How is the weather within the eye of the hurricane?  

......................................................................................................................... 2 marks

e. Explain the term ‘storm surge’.  

......................................................................................................................... 2 marks

f. What are the effects of hurricanes on urban areas?  

......................................................................................................................... 2 marks

Question 2

Examine carefully the map extract to help you work out the given exercise.

a. Give the six figure grid reference for:

   Waterfall ..........................................
   Ox bow lake  ..........................................
   Tributary of River Devon  ..........................

   3 marks

b. Give three differences between the springs or burns of the highland area and the River Devon flowing across the flood plain.

   .........................................................................................................................
   .........................................................................................................................
   .........................................................................................................................

   3 marks

c. In the given space reduce to half size the grid boxes 9597; 9697; 9598; and 9698. Then shade the area of the settlement named Dollar to indicate its shape when the scale is 1:50000 or 2 centimetres on the map represent 1 kilometre on the ground.

   3 marks
Question 3

Examine the given map of the world and read the information that has been given about each location to help you.

<table>
<thead>
<tr>
<th>Locations</th>
<th>Related information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>They form the major mountain range in western North America. These mountains stretch more than 4,800 kilometres from the northernmost part of British Columbia, in Canada, to New Mexico, in the United States. The range's highest peak is Mount Elbert in Colorado at 4,401m above sea level.</td>
</tr>
<tr>
<td>2</td>
<td>These are the world's longest exposed mountain range. They lie as a continuous chain of highland along the western coast of South America. The range is over 7,000 km long, 200 km to 700 km wide and of an average height of about 4,000 m.</td>
</tr>
<tr>
<td>3</td>
<td>These mountains are part of the Great Dividing Range, the series of mountains and plateaus which run about 3,000 kilometres from northern Queensland to central Victoria.</td>
</tr>
<tr>
<td>4</td>
<td>This is a volcano in north-eastern Tanzania rising 4,600 m from its base and is additionally the highest peak in Africa at 5,892 metres, providing a dramatic view of the surrounding plains.</td>
</tr>
<tr>
<td>5</td>
<td>This is the highest mountain in Japan at 3,776 m. It is an active volcano and is located west of Tokyo, and can be seen on a clear day.</td>
</tr>
<tr>
<td>6</td>
<td>This is a volcanic island off the southern coast of Iceland. It was formed in a volcanic eruption which began 130 metres below sea level, and reached the surface on 14 November 1963. The eruption lasted until 5 June 1967, when the island reached its maximum size of 2.7 km².</td>
</tr>
<tr>
<td>7</td>
<td>This plate is an oceanic tectonic plate in the eastern Pacific Ocean basin off the west coast of South America.</td>
</tr>
<tr>
<td>8</td>
<td>While most plates are comprised of both continental and oceanic crust this plate is almost entirely oceanic.</td>
</tr>
</tbody>
</table>

Fill in the relevant names which correspond to the numbers from 1 to 8 on the map.

Mountain chain 1 ............................................
Mountain chain 2 ............................................
Mountain chain 3 ............................................
Volcano 4 .....................................................
Volcano 5 ........................................................................
Volcano 6 ........................................................................
Plate 7 ...........................................................................
Plate 8 ...........................................................................

8 marks
Question 4

a. On the given map the watersheds for the drainage basins of the tributary streams have been drawn. Using a coloured pencil mark the watershed for the drainage basin of the river that is flowing out from the lake before it joins the other two rivers.  
2 marks

b. On the given map mark the numbers 1 to 2 to indicate the following features of the drainage basin.
   1. Source
   2. Confluence  
2 marks

c. Give the main inputs of a drainage system.  
   .............................................................................................................. 2 marks

d. Explain how drainage systems lose water naturally.  
   .............................................................................................................. 2 marks

e. Which factors influence the water level of a main river?  
   .............................................................................................................. 2 marks
Question 5

Give one example of an oceanic plate .................................................................

Give one example of a continental plate ...........................................................

2 marks

Explain the main differences between Oceanic Crust and Continental Crust in regards to the given aspects.

Thickenss ............................................................................................................ 2 marks

Age of rocks ........................................................................................................ 2 marks

Weight .................................................................................................................. 2 marks

Effects caused by tectonic movement ................................................................. 2 marks

Question 6

Refer to the diagram above and then work out the exercise below.

a. Give three characteristics of the Central Business District.

..........................................................................................................................
b. Burgess Model is a simplified description of reality. Which of the two zones included in the diagram above would be mixed up together and called ‘The Inner City’ of an actual city.

........................................................................................................................................2 marks

c. Give three main characteristics of the Inner City area.

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................3 marks

d. Explain why a good number of people would prefer to live in Zone 5.

........................................................................................................................................2 marks

Question 7

"We know that adults should have about 2,000 calories a day to survive healthily," says Mia Vukojevic, Oxfam Canada's humanitarian co-ordinator. "If you cut back to 1,000 they will get sick. Children are especially vulnerable to malnutrition. Hunger means more illness, more medical care, more time to recover, more deaths. It's a vicious circle of misery."

Read the above quote and then answer the following questions.

a. What is the meaning of malnutrition?

........................................................................................................................................2 marks

b. Why are the children who suffer from malnutrition less likely to succeed in life?

........................................................................................................................................2 marks

c. What is subsistence farming?

........................................................................................................................................2 marks

d. Describe the hard work that the Indian subsistence farmers have to do to grow rice.

........................................................................................................................................2 marks
e. What are the recent changes made by the Indian authorities to help raise the standard of living of the subsistence farmers? 

2 marks

Question 8

Give four reasons to explain why some of the Chinese people have been protesting against the building of the Three Gorges Dam.

8 marks
**Question 9**

Explain the impact of agriculture on the environment through:

a. the draining of wetlands

b. removal of hedgerows and rubble walls

c. the use of chemicals

d. Over cultivation

e. Deforestation to increase farmland

End of Paper