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NUCAPONS	DUNMAN HIGH SCHOOL Preliminary Examinations Year 6	5	

GEOGRAPHY (Higher 2) Paper 1 9730 Tuesday 17 Sept 2013 3 hours

READ THESE INSTRUCTIONS FIRST

Write your name and class clearly on **all** the work you hand in. Write in dark blue or black pen on both sides of the paper. You may use a soft pencil for any diagrams, graphs or rough working. Do not use staples, paper clips, highlighters, glue or correction fluid.

Section A

Answer **all** questions. **Section B** Answer **two** questions, each from a different topic.

The insert contains all the Figures referred to in the question paper. Sketch maps and diagrams should be drawn wherever they serve to illustrate an answer. You are reminded of the need for good English and clear presentation in your answers. You should make a reference to appropriate examples studied in the field or the classroom, even where the examples are not specifically requested by the question.

Start each question on a fresh sheet of paper.

At the end of the examination, fasten all your work securely together. The number of marks is given in the brackets [] at the end of each question or part question.

Section A

Answer **all** the questions in this section. Questions 1 and 2 carry 12 marks and Question 3 and 4 carry 13 marks. You should allocate your time accordingly.

Lithospheric Processes, Hazards and Management

Fig. 1a shows the location and magnitude of earthquakes in one week in June 2010. Fig. 1b shows the locations of the Haiti and Chilean earthquakes in 2010.
(a) With the help of Fig. 1a, describe the world distribution of earthquakes in June 2010.
[3]

(b) (i) With the help of a diagram, explain how the earthquake at Haiti, as seen in Fig.1b, is generated. [4]

(ii) Suggest how the generation of the earthquake at Chile is different from Haiti. [2]

(c) Explain two methods to mitigate the hazardous effects of earthquakes. [3]

Atmospheric Processes, Hazards and Management

- 2. Fig.2 shows the global distribution of monthly precipitation for the month of July.
 - (a) Using Fig. 2, describe the variations in the global distribution of total monthly precipitation. [3]
 - (b) Explain how the ITCZ results in high annual precipitation near the equator. [4]
 - (c) Explain other factors that could account for variations in the total annual precipitation near the equator as shown in Fig. 2. [5]

Hydrologic Processes, Hazards and Management

3. You are part of a group of students asked to undertake a fieldwork exercise that involved the collecting of data that would help describe the changes in stream channel characteristics as it progresssed down valley. The information collected is shown in Fig 3.

The location of the upstream site of the study is shown in Photograph A.

- (a) Describe how you would carry out fieldwork to determine stream velocity at the upstream site and include in your answer some difficulties you would face in carrying out the fieldwork at this site.
- (b) Based on the data from Fig. 3, calculate the bankfull velocity for both the upstream and downstream sites. [2]
- (c) How does the information in Fig. 3 help you to explain the difference in bankfull velocities at the two sites? [5]

Lithospheric and Atmospheric Processes, Hazards and Management

- **4.** Table 1 shows the number of deaths from some natural disasters. Fig. 4 shows two types of mass movement affecting slopes.
 - (a) Describe the trends shown in the list in Table 1. [5]
 - (b) Distinguish between the two types of mass movement shown in Fig. 4. [5]
 - (c) Suggest hazards that might be created by the mass movements shown in Fig. 4. [3]

Section B

Answer two questions, each from a different topic. All questions carry 25 marks.

Lithospheric Processes, Hazards and Management

5 EITHER

- (a) Fig. 5 is an excerpt from a newspaper report on one means of predicting volcanic eruptions. Explain how other methods, as well as satellites, can be used for the prediction of volcanic eruptions. [9]
- (b) 'Volcanic activity has a greater impact on the human environment than it does on the physical environment.' To what extent do you accept this statement? [16]

OR

(a) With the help of diagrams, describe and explain the nature and formation of the following tectonic phenomena formed at convergent plate margins:

		i. Island arcsii. Tsunamis [9]
	(b)	Assess the factors and processes that lead to deep weathering under humid tropical conditions. Explain how granite landforms may develop over time. [16]
At	mos	heric Processes, Hazards and Management
6	EITHER	
	(a)	Briefly explain the causes of El Nino and describe its effects on regional climates. [9]
	(b)	The effects of Global Warming are harmful and cannot be mitigated" How far do you agree with this statement? [16]
		OR
	(a)	With the aid of a diagram or diagrams, describe and explain the horizontal transfer of neat energy from lower latitudes to higher latitudes. [9]
	(b)	To what extent are topographic effects and ocean currents important in influencing climatic zones in Tropical Africa and Asia? [16]
Ну	dro	ogic Processes, Hazards and Management
7		EITHER
	(a)	How does an understanding of <i>critical erosion velocity</i> and <i>settling velocity</i> explain how oad is transported within a river channel. [9]
	(b)	Explain how the development and form of channel patterns are a response to channel efficiency. [16]
		Or
	(a)	With the aid of diagrams, explain how and why river regimes vary. [9]

(b) Using examples, discuss the extent to which the conflicts of interest that operate within, and between, riparian states are largely economic? [16]