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DUNMAN HIGH SCHOOL PRELIMINARY EXAMINATIONS Year 6

HIGHER 1 GEOGRAPHY

8813/01

Paper 1

Monday

11 September 2017

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 an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **four** questions in total.

Section A

Answer Question 1.

Section B

Answer Question 2.

Section C

Answer **two** questions, each from a different theme.

The Insert contains all the Resources referred to in the questions.
You should make reference to appropriate examples studied in the field or the classroom, even where such examples are not specifically requested by the question.
Diagram and sketch maps should be drawn whenever they serve to illustrate an answer.
The world outline map may be annotated and handed in with relevant answers.
You are reminded of the need for good English and clear presentation in your answers.

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.

This document consists of **5** printed pages, **1** blank page and **1** Insert.

[Turn over

Section A

Theme 3: Geographical Investigation

- 1 You and a group of classmates were tasked with undertaking a fieldwork investigation at two contrasting river channels to ascertain the flood risk at the sites shown in Resource 1. River A is located in a forest reserve. River B is a managed river channel.

The group was divided up into teams of four to measure river velocity and wetted perimeter of each river. Discharge is calculated by multiplying the cross sectional area of the channel by the velocity of the water.

Your team took measurements on two consecutive Tuesdays in March and were given 4 hours, between 10 a.m. and 2 p.m., at each site to complete the river velocity and wetted perimeter measurements.

Teams were each given the following equipment to gather the primary data on river velocity:

- Oranges
- Tape measure
- Stop watch

The time taken for the floating object to cover a pre-determined distance, defined by the position of 2 students standing by the side of the river, was recorded. At River A, the group found that the floating object was often obstructed by fallen trees or debris in the river. The data collected was recorded using a data collection sheet.

To measure the wetted perimeter of the river, your team used the following equipment:

- Tape measure
- Meter rulers

Your team laid an unweighted tape measure along the river bed and took depth measurements at equal distances across the river. This data was used to plot the wetted perimeter of the river and then the cross sectional areas of the two rivers were calculated.

Resource 1 shows the land use associated with Rivers A and B. Resource 2 shows the photographs of the locations where field investigation was conducted at River A and River B. Resource 3 shows the velocity data collected by your team.

- (a) With reference to Resource 1, suggest a suitable hypothesis for your group investigation. [1]
- (b) Explain how your group would minimise the impact of your investigation differently at the two rivers shown in Resource 2. [5]
- (c) Suggest two limitations of the data representation method shown in Resource 3 and sketch one line graph to represent the average velocity of Rivers A and B over time. [5]
- (d) Your group concluded that some of the discharge data collected may not be completely reliable and/or accurate.
Explain how the process of data collection could be improved. [6]
- (e) Evaluate the usefulness of the river velocity data shown in Resource 3 in helping to ascertain the flood risk at each of the two rivers. [8]

Section B**Theme 2: Urban Change****Slums in Developed Countries (DCs) and Less Developed Countries (LDCs)**

- 2** Resource 4 shows the change in the slum and non-slum population in Mumbai and Ahmedabad, India, a LDC. Resource 5 shows the distribution of slums and some features of the urban structure of Mumbai in 2008. Resource 6 shows slum housing in Dharavi, Mumbai; and low-income housing in Paris, France, a DC. Resource 7 shows two excerpts on life and the future development of slums in Mumbai; and also slum housing in Le Banlieues, a suburb in Paris.
- (a)** With reference to Resource 4, suggest reasons for the differences in the size and extent of slum population between Mumbai and Ahmedabad. [4]
- (b)** With reference to Resource 5, suggest **three** reasons for the locations of slum development in Greater Mumbai. [5]
- (c)** With reference to Resource 6, contrast the characteristics of slum housing between Mumbai and Paris. [4]
- (d)** With reference to Resources 6 & 7, and your own knowledge, explain how urban liveability issues may differ between residents in LDCs and DCs. [6]
- (e)** Using Resource 7 and your own knowledge, explain if housing strategies used to improve the lives of slum dwellers are effective. [6]

Section C

Answer **two** questions from this section. **Either** Question 3 **or** Question 4 and **Either** Question 5 **or** Question 6.

Theme 1: Climate Change and Flooding

- 3 (a)** With the aid of an annotated diagram, explain the key features of storm discharge characteristics in the arid tropics. [9]
- (b)** 'Climate is the most important factor influencing hydrological processes of drainage basins in the tropics.'
- Discuss. [16]
- 4 (a)** Explain the evidence of climate change in the tropics since the Late Pleistocene Epoch. [9]
- (b)** 'The poorest developing countries will be hit earliest and hardest by climate change even though they have contributed little to causing the problem.' - Stern Review 2006
- To what extent can countries of low levels of development manage the impacts of human-induced climate change? Discuss. [16]

Theme 2: Urban Change

- 5 (a)** Explain how the issue of crowding or fear is produced in cities with high levels of development. [9]
- (b)** Discuss the extent to which urban reimagining strategies in high-income countries have raised the quality of urban living for its dwellers. [16]
- 6 (a)** Explain how cities with varying levels of economic development manage non-hazardous solid waste. [9]
- (b)** 'Strategies to ease traffic congestion in cities have had little success.'
- Discuss the extent to which you agree with the statement. [16]

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