MERIDIAN JUNIOR COLLEGE

JC2 PRELIMINARY EXAMINATIONS 2008

GEOGRAPHY (H2)
PAPER 1

9730/01

0800 - 1100hrs **10 SEP 2008** 3 hours

READ THESE INSTRUCTIONS FIRST

Write your name and Civics Group clearly on **all** your answer scripts.
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.

Answer **all** questions in Section A.
Answer 2 questions in Section B.

Start each question on a fresh sheet of paper.

At the end of the examination, fasten all your work securely in chronological order and hand them in together.

The number of marks is given in the brackets [ ] at the end of each question or part question.

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.

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.

Section A
(Data Response)

Answer **all** questions.

Lithospheric Processes, Hazards and Management

1. Figure 1 shows a classification of mass movements according to water content and velocity.

   a) Describe the nature of solifluction and explain under what conditions it occurs. [4]

   b) Describe soil creep and explain why it occurs at such low velocities. [4]

   c) Explain why rapid mass movements tend to occur at plate boundaries. [4]

Atmospheric Processes, Hazards and Management

2. Figure 2 shows energy exchanges at the earth's surface during the day and night.

   a) Explain how the differences in energy exchanges between day and night occur. [8]

   b) Explain the differences in energy exchange you would observe if the ground medium was water instead of soil. [4]

Hydrologic Processes, Hazards and Management

3. Figure 3A shows the precipitation and discharge levels of the River Severn and River Wye in the UK. Figure 3B is a landuse map of the catchment areas of both rivers.

   (a) Describe and account for the differences between the hydrographs of the River Wye and the River Severn. [6]

   b) Explain how new urban development may affect the storm hydrograph of River Severn. [6]

Atmospheric and Hydrologic Processes, Hazards and Management

4. Figure 4 shows 5 locations in Africa and their associated climographs.

   a) Giving reasons for your answer, identify the climograph (A, B, C, D or E) that corresponds to:
      (i) In Salah
      (ii) Cape Town
      (iii) Yaounde [6]

   b) Define the term "water balance". [2]

   c) With the aid of diagrams, compare and account for the differences in water balance between the areas represented by climograph C & climograph E. [6]

Section B
(Essay)

Answer any 2 questions from this section.

Lithospheric Processes, Hazards and Management

5 Either

(a) Why is the knowledge of plate tectonics important in understanding the distribution of many natural hazards? [9]

(b) To what extent is geological structure important in the determination of landforms found in limestone areas. [16]

Or

(a) Describe and account for the differences between the types of volcanoes found at convergent and divergent plate boundaries. [9]

(b) To what extent is it possible to predict earthquakes and to limit their hazardous effects? [16]

Atmospheric Processes, Hazards and Management

6 Either

(a) Figure 5 shows the percentage change in climatic variables of an urban area in the temperate zone. Account for the observed pattern shown in Figure 5. [9]

(b) Critically examine the view that "the problem of global warming can only be managed with an equally global response". [16]

Or

(a) Explain the causes of present global warming and describe its possible climatic effects. [9]

(b) With reference to an example or examples, assess the effectiveness of strategies that have been employed to manage the effects of tropical cyclones. [16]

Hydrologic Processes, Hazards and Management

7 Either

(a) With the aid of diagram or diagrams, explain how changes in land use in a drainage basin will affect a river's energy. [9]

(b) Examine the view that flood protection is essential in the management of areas prone to floods. [16]

Or

(a) Using examples, show how the activities of upper riparian states may impact the human environment of lower riparian states. [9]

(b) Discuss the statement that "the main causes of flooding lie in human factors as opposed to physical factors". [16]

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