MERIDIAN JUNIOR COLLEGE
PRELIMINARY EXAMINATION
Higher 2

JC 2 H2 Geography   **9751/02**

Paper 2   **20 Sep 2017**

                                                       3 Hours

Additional Materials: Answer Book
                      Insert

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

Candidates answer **three** questions. **One** from each section.

The Insert contains all the Resources referred to in the questions.
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.

Start each question on a fresh sheet of paper.

1. At the end of the examination, fasten this **cover sheet** and all your work in **chronological order** together securely for submission.

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

This document consists of 6 printed pages.

Name: _____

Class: _____

Index number: _____

Qn no. (Section A)	Marks	Qn no. (Section B)	Marks
1		3	
2		4	
Total			

Section A
Theme 4 – Geographical Investigation

1 Your class of 8 H2 Geography students were tasked to undertake an investigation on two contrasting river channels to ascertain the flood risk in these locations associated with the nature of the channels at each site.

The class was divided into teams of four to measure river velocity and wetted perimeter of each river. One site (River A) was along a river in a nature reserve. The other site was along River B, a managed river channel next to an urban expressway.

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 September and were given four 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:

• Tennis balls (floating object)

• Tape measure

• Stop watch

The time taken for the floating object to cover a pre-determined distance defined by the position of the two students standing by the side of the river was recorded. At river A, the group found that the floating object often became stuck in fallen trees or debris in the river. The data collected was recorded using a data collection sheet (Resource 3B).

To measure the river's wetted perimeter, 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 river's wetted perimeter and then the cross sectional areas of the two rivers were calculated.

Resource 3A shows two photographs, one of a river in a nature reserve (River A) and one of a managed river channel (River B). Resource 3B shows the data collected by your team to calculate the velocity of Rivers A and B.

(a) With reference to Resource 1 and Resource 2, 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 1 and Resource 2. [5]

(c) State two limitations of the data representation method shown in Resource 3 and suggest an alternative method 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. [5]

(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. [9]

Section B

Theme 1: Climate and Climate Change

Flooding in Brisbane, Australia

2   Resource 4 shows wind direction over Africa in January and July. Resource 5 shows mass movement that have occurred in Ouagadougou and In Salah.

   (a)   Using Resource 4, suggest differences in the rainfall characteristics between Ouagadougou and In Salah.   [3]

   (b)   Account for the differences in rainfall characteristics between Ouagadougou and In Salah.   [4]

   (c)   Compare the two mass movement shown in Resource 5.   [4]

   (d)   With reference to Resources 4 and 5, explain why mass movement processes may differ between Ouagadougou and In Salah.   [5]

   (e)   Using Resources 4 and 5 and your own knowledge, discuss the view that floods in Ouagadougou are worse than In Salah.   [9]

Theme 2: Development, Economy and Environment

Development in Costa Rica

3   Costa Rica has been hailed as a role model for other Latin American nations. It has experienced rapid economic growth since 2000 and today boasts a sterling record of 93% of its energy sources coming from renewable sources. The Costa Rican government aims for the country to be carbon neutral by the year 2012. Resource 6 shows imports, exports and the balance of trade for Costa Rica from 1992-2003. Resource 7 shows the GDP per capita for Costa Rica from 1980 to 2008. Resource 8 shows the employment structure of Costa Rica for 1995 and 2005. Resource 9 shows the location of Costa Rica.

(a)   Using Resources 6 and 7, compare the trend between Costa Rica's balance of trade and its nominal GDP per capita.   [4]

(b)   With reference to Resource 8, describe the changes in employment structure in Costa Rica between 1995 and 2005.   [2]

(c)   Using Resources 6, 7 and 8, suggest reasons for the trend described in (a)   [6]

(d)   What are the limitations of the data representation method shown in Resource 8? Suggest an alternative method to represent the data shown.   [5]

(e)   Assess the usefulness of Resources 6, 7 and 8 in understanding the nature of economic development in Costa Rica during the period from 1992 to 2003?   [8]

Theme 3: Sustainable Development
Urban Slums in Uganda

4 Resource 10 shows the population distribution of Uganda by settlements. Resource 11 shows the proportion of the urban population living in slums in Uganda. Resource 12 shows the urbanisation rate of Uganda over time. Resource 13 is a picture of Katanga slum in Kampala, the capital city of Uganda.

(a) Describe the population distribution of Uganda shown in Resource 10. [2]

(b) With reference to Resources 11 and 12, explain possible reasons for the trend shown in for the proportion of urban population living in slums. [5]

(c) With reference to Resource 13 and your own knowledge, explain why it is difficult for people to break out of poverty and relocate out of slums? [5]

(d) Using the aid of information from Resources 11 and 12, suggest possible strategies to address the challenges posed by slums in Uganda. [6]

(e) Critically evaluate the sustainability of slums such as the one shown in Resource 13. [7]