Name:		Index Number:		Class:	

DUNMAN HIGH SCHOOL
PRELIMINARY EXAMINATIONS
Year 6

HIGHER 2 GEOGRAPHY **9751/02**

Paper 2 Data Response Questions

Friday **21 September 2018** **3 hours**

Additional materials: 1 Insert
World outline map

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

Candidates answer **all** questions.

The Insert contains all the Resources referred to in the questions.
You should make reference to appropriate examples studied in the field or in the classroom, even where such examples are not specifically requested by the question.
Diagrams and sketch maps should be drawn whenever they serve to illustrate an answer.
The outline world 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.

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

Section A

Theme 4: Geographical Investigation

1 A student undertook an individual fieldwork exercise along part of the Park Connector Network (PCN) to assess the walkability of different paths (see Resource 1A).

The PCN is made up of linear open spaces which serve as pathways linking major parks, nature reserves and green spaces within the urban area.

Walkability is an element of liveability. Walkability is the extent to which the environment is conducive to walking for recreation and personal travel. It includes considerations of comfort, air quality lighting and safety, provision of amenities such as shelters, the path's accessibility for all users and its connectivity to other walking routes.

The student surveyed 30 sections of park connectors in the area investigated, totalling approximately 16km in length. She surveyed the sections on weekdays between 10:00 and 12:00hrs and between 14:00 and 16:00hrs over a 4-day period, avoiding one day when it rained heavily for most of the day.

A stratified random sample of sections from each of the following types of path was taken.

- Paths adjacent to canals
- Paths adjacent to roads.
- Paths adjacent to elevated train tracks.
- Paths within parks.

Equipment used:

- large scale map of the area investigated
- printed recording sheets and pen
- iPad

For each section of path, its characteristics, such as the location of benches, was recorded on the base map (see Resource 1B) and a copy of the recording sheet was completed (see Resource 2). Photographs were taken of key features, such as unclear signage which could lead to conflicts between walkers and cyclists.

After the surveys were completed the data was compiled and analysed so that conclusions could be made about the walkability of the paths in the area investigated.

Study Resources 1 to 3. Resource 1 shows the Park Connector Network (PCN) and area investigated as well as a base map recording the characteristics of one section of path. Resource 2 shows one of the recording sheets used in the survey. Resource 3 is a photograph of one section of park connector taken during the fieldwork.

(a) Suggest a suitable geographical question for this investigation about walkability. [1]

(b) With reference to Resources 1 and 3, describe **two** potential risks associated with undertaking this fieldwork and explain how each risk could be minimised. [4]

(c) Explain the strengths and limitations of the data which was collected using the recording sheet shown in Resource 2. [6]

(d) Using Resource 2, explain one data source that could provide information about walkability of paths for the elderly and describe an appropriate method to represent this data. [5]

(e) Evaluate this investigation about the walkability of the area investigated and explain how it could be improved and extended. [9]

Section B

Theme 1: Tropical Environments

Geomorphic and fluvial processes in the tropics

2 Resource 4A shows part of the Amazon river channel in Brazil that experiences perennial flow. Resource 4B shows part of the Yamuna river channel in India that experiences seasonal flow. Resources 5, 6 and 7 show information of geomorphic processes during the Quaternary period between the Last Glacial Maximum (18,000 BP) and the Holocene (11700 BP). Resource 5 shows present day rainfall conditions and the limit of active and inactive dunes in the southern regions of the Sahara. Resource 6 shows the changes in rainfall limit since the Last Glacial Maximum. Resource 7A shows the location of the Blue Nile Basin in Africa. Resources 7B and 7C show the geomorphological processes operating in the Blue Nile Basin during the Last Glacial Maximum and the Holocene respectively.

(a) With reference to Resources 4A and 4B, compare the characteristics of the two river channels. [4]

(b) With reference to Resources 4A and 4B, outline and explain the likely changes that will take place in the two river channels during the wet season. [6]

(c) With reference to Resources 5, outline one difference between the latitudinal limits of the active and the inactive dunes. [2]

(d) With reference to Resources 7B and 7C, explain the difference in slope stability. [4]

(e) With reference to Resources 5, 6, 7B, 7C and your own knowledge, discuss the effects of past climate change on geomorphic processes in the tropics. [9]

Theme 2: Development, Economy and Environment

Development and Managing Resource Base in Sub-Saharan Africa

3 Resource 8 shows the distribution of mineral wealth and commodities of selected countries in Sub-Saharan Africa. Resource 9 shows the relationship between commodity prices and GDP Growth Rates in Sub-Saharan Africa from 1961-2014. Resource 10A shows the Human Development Index (HDI) for Sub-Saharan Africa in 2012. Resource 10B shows two indicators for Sub-Saharan Africa: the share of population without access to electricity and mobile phone penetration in Sub-Saharan Africa. Resource 11 shows an oil spill and resultant oil fire in the Ogoni delta in Nigeria, Africa.

(a) Describe the distribution of Sub-Saharan Africa's mineral wealth and its impact on some of these countries in Resource 8. [5]

(b) With reference to Resource 9, describe the relationship between the changes in commodity prices and GDP growth rates in Sub-Saharan Africa between1961 to 2014. [3]

(c) With reference to Resources 8, 9, 10A and 10B as well as your own knowledge, suggest **three** reasons why resource rich countries such as Nigeria have low levels of HDI. [6]

(d) With reference to Resource 11, explain how the extraction of minerals can affect the local environment. [4]

(e) With reference to resource 8 as well as any other resources, and your own knowledge, recommend whether Guinea should build a new iron ore mine that produces bauxite. [7]

Theme 3: Sustainable Development

Liveability and Sustainability of Cities

4 Resource 12 shows the EIU's Liveability index and WWF's Ecological Footprint in 2008. Resource 13 shows Profile Circles of Sustainability for Melbourne, Australia and Port Moresby, Papua New Guinea (PNG) in 2013. Resource 14 shows an advertisement for plans to promote and develop a large scale tourism project on reclaimed land in Port Moresby, New Guinea, a low income country.

(a) Describe the relationship between the liveability index and ecological footprint as shown in Resource 12. [4]

(b) With reference to Resources 12 and 13, suggest three reasons to account for the differences in liveability between Melbourne in Australia and Port Moresby in Papua New Guinea. [6]

(c) With reference to Resource 13, compare the performance in the scoring for sustainability for Melbourne and Port Moresby. [4]

(d) With reference to Resources 12 and 13, suggest ways in which Melbourne, Australia can score higher in its sustainability ratings. [4]

(e) Imagine that you are the city planner for Port Moresby, Papua New Guinea. You are tasked to evaluate the viability of developing a large scale tourism flagship project on reclaimed land in Port Moresby. With reference to Resources 12, 13, 14 and your own knowledge, assess if this project meets the needs of its residents. [7]