ANGLO-CHINESE JUNIOR COLLEGE
JC 2 Preliminary Examinations 2018

GEOGRAPHY 9751/02
Higher 2

Paper 2 Data Response Questions

Time: 3 hours **24 August 2018 (Friday)**

READ THESE INSTRUCTIONS FIRST
Write your Centre number, index number and name on all the work you hand in.
Start every question on a fresh piece of writing paper
Write in dark blue or black pen.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **four** questions. **One** from each section.

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

On the **cover sheet** provided, include:
- Your name and index no.
- The question numbers of the question you have attempted in the boxes provided, and place the cover sheet as the top page over your answers to Section A.

Start each question on a fresh piece of paper. At the end of the examination, ***fasten your answers to each question separately***; with the cover page fastened as the top page for Question 1. Submit your answers to each section separately; with **four** bundles submitted.

This Question Paper consists of 5 printed pages, including this cover page.
The Insert consists of 13 printed pages.

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[Turn Over

Section A – Geographical Investigation

1 A group of 20 18-year-old students undertook an investigation along the River Wye in the United Kingdom to ascertain the flood risk around the village of Winforton. The group wanted to find out the infiltration rates at two selected sites – Site P (1 kilometre away from and southwest of the Winforton village) and Site Q (1 kilometre away from and south of the Winforton village) – to determine the flood risk in these areas. They have also obtained the information from the local hydrology office that the area south of the Winforton Village where Site Q is located has experienced six floods in past five years.

The following hypothesis was selected for their investigation:

Hypothesis: The lower the infiltration rates, the higher the flood risk.

The students carried out the primary investigation at Sites P and Q in the study area in Resource 1 on 14 August 2017. The group also wanted to determine the effectiveness of the flood mitigation methods found along the River Wye. The group prepared the bi-polar analysis to determine the effectiveness of the levees and gabions for flood management. In order to support their analysis, the group also prepared a questionnaire survey for the residents of the Winforton Village to find out their perception of the effectiveness of the flood mitigation methods. Resource 2 shows the recording sheet for their bi-polar analysis for levees. Resource 3 shows the questionnaire survey the group has prepared for the pilot test for the survey.

(a) With reference to Resource 1, evaluate the suitability of the given hypothesis. **[4]**

(b) Explain how this group of students would minimise the impacts of their primary investigation at Sites P and Q shown in Resource 1. **[4]**

(c) Explain how the students might have carried out their primary fieldwork on investigating infiltration rates at Sites P and Q in Resource 1. **[7]**

(d) Suggest **four** field evidence that the students could look out for when examining the levees that would correspond to the scoring shown in the recording sheet in Resource 2. **[4]**

(e) During the pilot test for the questionnaire survey, the students concluded that they needed to improve their survey questions shown in Resource 3. Suggest how the survey questions in Resource 3 can be further improved. **[6]**

[Turn Over

Section B

Theme 1: Tropical Environments

Climate, Fluvial Processes and Landforms in Niger

2 Resource 4 shows the location and climograph of Niamey, the capital of Niger. Resource 5 shows the long profile of the Upper, Middle and Lower Niger River. Resource 6 shows a satellite image of the city of Niamey and the Middle Niger River. X is one of the gauging stations along the Middle Niger River in Resource 6.

(a) Describe and account for climatic characteristics of Niamey as shown in Resource 4. **[5]**

(b) Using information from Resource 5, describe the long profile of the Middle Niger River and suggest reasons for your description of the long profile. **[6]**

(c) Sketch a storm hydrograph for the Middle Niger River at Gauging Station X in Resource 6 following a rainfall event in August and explain its key features. **[6]**

(d) Using Resources 4, 6 and your own knowledge, to what extent does discharge play an important role in the development of the river pattern of the Middle Niger River in Area A in Resource 6? **[8]**

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Theme 2: Development, Economy and Environment

Water Scarcity

3 Resource 7 shows the relationship between GNP per capita and access to clean water in 10 less developed countries. Resource 8A shows the available water per person in Africa while Resource 8B shows the annual rainfall for Africa. Resource 9 shows a water conservation programme implemented in Nevada, a western U.S. state with a vast expanse of desert. Resource 10 shows the presence and construction of dams along the Mekong River in 2015.

(a) Describe the relationship between GNP per capita and the population with access to clean water as seen in Resource 7. **[4]**

Note: Relationship → Most students could not describe strength of relationship although exceptions were accepted. Another possible answer is the differing extent of change at different GNP levels.

2m: Positive/direct relationship + evidence
(-1m if evidence is not provided OR if the accurate term for description – positive/direct is not used)

2m: Strength of rs weak + evidence
(-1m if evidence is not provided. A good piece of evidence- Between the range of US$7200 to US$10000, countries have similar % access to clean water e.g. Guatemala at US$7200 with 94% access and Sri Lanka with approx. US$9600 and a 95% access to clean water.)

(b) Using Resource 7 and 8, and your own knowledge, evaluate the contribution of physical factors towards water scarcity. **[9]**

(c) Explain the benefits and limitations of water conservation programmes such as that shown in Resource 9. **[6]**

(d) Using evidence from Resource 10, and your own knowledge, explain why the construction of additional dams may not be a good solution to water scarcity issues for China. **[6]**

[Turn Over

Theme 3: Sustainable Development

Traffic congestion in Paris, France

4 Resource 11 shows the top ten most congested cities in the world in 2017. Resource 12 shows the level of car dependence in Paris in 2001.
Various efforts have been taken to combat traffic congestion in Paris. Resource 13 shows a station of *Vélib'*, a large-scale public bicycle-sharing scheme in Paris, launched in 2007. Resources 14A and 14B are photographs of the Lower Quay along River Seine, before and after a recent urban policy change in 2017 to ban vehicles on selected roads.

(a) Compare the ranks of cities as shown in Resource 11. **[4]**

(b) With reference to Resource 12, describe the pattern of car-dependence for Paris. **[4]**

(c) Suggest reasons for the pattern of car dependence for Paris as seen in Resource 12. **[4]**

(d) With reference to Resources 11, 13 and your own knowledge, evaluate whether public bicycle-sharing scheme aid in reducing car-dependence for a developed city like Paris. **[7]**

(e) Using evidence from Resources 14A and 14B, explain possible effects of the urban change shown in Resource 14B on urban liveability for Paris. **[6]**

End]