HWA CHONG INSTITUTION
JC1 Promotional Examination
Higher 2

CANDIDATE NAME		**CT GROUP**	
CENTRE NUMBER		**INDEX NUMBER**	

GEOGRAPHY

9173/01

Additional Materials: Insert

26 September 2023
3 hours

READ THESE INSTRUCTIONS FIRST

Write your name and CT 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, glue or correction fluid.

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 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.
You are reminded of the need for good English and clear presentation in your answers.

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

You are to start your answer to each question (Q1, 2, 3 and 4) on a fresh sheet of paper.
Tie and submit your answers in <u>3 sets</u>:

Set 1: Questions 1 and 2
Set 2: Question 3
Set 3: Question 4

Section A

Answer **both** questions.

Cluster 2 Tropical Environments

1 Resource 1 shows the Inter-Tropical Convergence Zone (ITCZ) and wind direction over the African continent in June to September, and January to March. The locations of Ouagadougou (12.4°N), capital city of Burkina Faso, and In Salah (27.2°N), an oasis town in central Algeria, are also shown in Resource 1. Resource 2A is a cross-section schematic diagram of the drainage basin system in Ouagadougou while Resource 2B shows that of In Salah. Resource 3A shows a mass movement that had occurred in Ouagadougou, and Resource 3B shows a mass movement that had occurred in In Salah.

(a) Describe the changes in winds over Ouagadougou and In Salah from June to January shown in Resource 1. **[4]**

(b) With reference to Resource 1, suggest reasons for the differences in rainfall characteristics between Ouagadougou and In Salah. **[8]**

(c) Describe the differences between the two drainage basin systems of Ouagadougou and In Salah shown in Resources 2A and 2B respectively. **[4]**

(d) From Resources 1, 2A and 2B, suggest why overland flows may be more common in Ouagadougou than in In Salah. **[5]**

(e) Compare the key characteristics of the two mass movements shown in Resources 3A and 3B. **[4]**

(f) With reference to Resources 1, 2A and 2B, explain why mass movement processes may differ between Ouagadougou and In Salah. **[5]**

2 Resource 4 is a map of Peninsular Malaysia showing the locations of limestone hills. Kinta Valley (4.4°N) in Perak state, is indicated in the box. Resource 5 shows Gua Tempurung, a limestone cave in Kinta Valley. Resource 6 is a photograph of a quarry – a mining site – at Gunung Kanthan, northern Kinta Valley.

(a) From Resource 4, describe the distribution of limestone hills in Peninsular Malaysia. **[2]**

(b) With reference to Resource 4, explain the dominant type of weathering that is likely to occur in Kinta Valley, Malaysia. **[4]**

(c) Describe the limestone features as seen in Resource 5. **[4]**

(d) With reference to Resource 5, explain the formation of the features shown. **[7]**

(e) From Resource 6, suggest the ecosystem services that may be provided by karst landforms in Kinta Valley. **[6]**

(f) Explain how human activities can negatively impact karst ecosystem services. **[7]**

Section B

Answer **both** questions.

Cluster 2 Tropical Environments

3 'Fluvial floods affect people minimally because of effective management strategies.'

Evaluate this statement. **[20]**

Cluster 3 Sustainable Future and Climate Change

4 'The creation of liveable cities for women is challenging.'

Evaluate this statement. **[20]**

Acknowledgements:
Question 1 Resource 1 @ https://www.britannica.com/science/West-African-monsoon
Question 1 Resource 2A and 2B @ chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://dep.wv.gov/wwe/programs/gw/documents/11373_groundwater%20program%20remediation%20guidance%20document.pdf
Question 1 Resource 3A @ chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.fmreview.org/sites/fmr/files/FMRdownloads/en/climatechange/kaelin-dale.pdf
Question 1 Resource 3B @ https://www.aegweb.org/landslides
Question 2 Resource 4 @ https://digitalcommons.usf.edu/cgi/viewcontent.cgi?article=1063&context=sinkhole_2018
Question 2 Resource 5 @ https://sg.trip.com/moments/detail/marudi-1453701-18332428?locale=en-SG
Question 2 Resource 6 @ https://www.macaranga.org/the-true-value-of-limestone/