# Geography
# Standard level
# Paper 1

10 May 2024

**Zone A** afternoon | **Zone B** afternoon | **Zone C** afternoon

## 1 hour 30 minutes

## Instructions to candidates

- Do not open this examination paper until instructed to do so.
- Answer the questions in two options.
- The accompanying **geography resource booklet** is required for this examination paper.
- The maximum mark for this examination paper is **[40 marks]**.

| Option | Questions |
|---|---|
| Option A — Freshwater | 1 – 2 |
| Option B — Oceans and coastal margins | 3 – 4 |
| Option C — Extreme environments | 5 – 6 |
| Option D — Geophysical hazards | 7 – 8 |
| Option E — Leisure, tourism and sport | 9 – 10 |
| Option F — Food and health | 11 – 12 |
| Option G — Urban environments | 13 – 14 |

Answer the questions in **two** options.

When relevant, answers should refer to case studies or examples, and where appropriate include well-drawn maps or diagrams.

**Option A — Freshwater**

Answer the following question.

1. Refer to the map on page 2 of the accompanying resource booklet.

   The map shows the managed aquifer recharge (MAR) sites in the states of Australia.

   (a)  (i)   Identify the Australian state with the greatest number of MAR sites.  [1]

        (ii)  State the water source of the aquifer recharge on the coast of the Northern Territory.  [1]

   (b)  Outline **one** reason why most MAR sites are near cities.  [2]

   (c)  (i)   Explain **one** way in which agricultural activities may cause salinization.  [3]

        (ii)  Explain **one** consequence of salinization for farmers.  [3]

Answer either part (a) or part (b).

   **Either**

2. (a)  Examine how human activities within drainage basins may affect the characteristics of river hydrographs.  [10]

   **Or**

2. (b)  Examine the costs **and** benefits that dam building brings to different stakeholders.  [10]

# End of Option A

**Option B — Oceans and coastal margins**

Answer the following question.

3.      Refer to the world map on page 3 of the accompanying resource booklet.

The world map shows the tracks of hurricanes, tropical cyclones, and typhoons.

(a)     (i)     State the main direction of the tracks of tropical cyclones in the Southern
Hemisphere.                                                                      [1]

(ii)    Using the world map, state which continent experiences typhoons between
April and January.                                                              [1]

(b)     Outline **one** reason why hurricanes (tropical cyclones/typhoons) usually form
over tropical oceans.                                                            [2]

(c)     Explain **two** reasons why stakeholders value mangrove swamps.           [3 + 3]

Answer either part (a) or part (b).

**Either**

4.      (a)     Examine the contribution of conservation areas to the management of oceanic
fish stocks.                                                                    [10]

**Or**

4.      (b)     Examine the roles of wind and vegetation in the development of coastal sand dunes.     [10]

# End of Option B

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**Option C — Extreme environments**

Answer the following question.

5.      Refer to the photograph on page 4 of the accompanying resource booklet.

        The photograph shows a glaciated landscape and a footbridge in New Zealand.

        (a)     Identify landform **A and** landform **B** shown in the photograph.                    [1 + 1]

        (b)     Outline **one** way in which accessibility may cause a challenge for resource
                development in the area shown in the photograph.                                          [2]

        (c)     (i)      Explain how **one named** landscape feature in a hot, arid environment is
                         formed by wind erosion.                                                          [3]

                (ii)     Explain how **one named** landscape feature in a hot, arid environment is
                         formed by water.                                                                 [3]

Answer either part (a) or part (b).

        **Either**

6.      (a)     Examine the opportunities **and** challenges associated with mineral extraction in
                **one** extreme environment.                                                             [10]

        **Or**

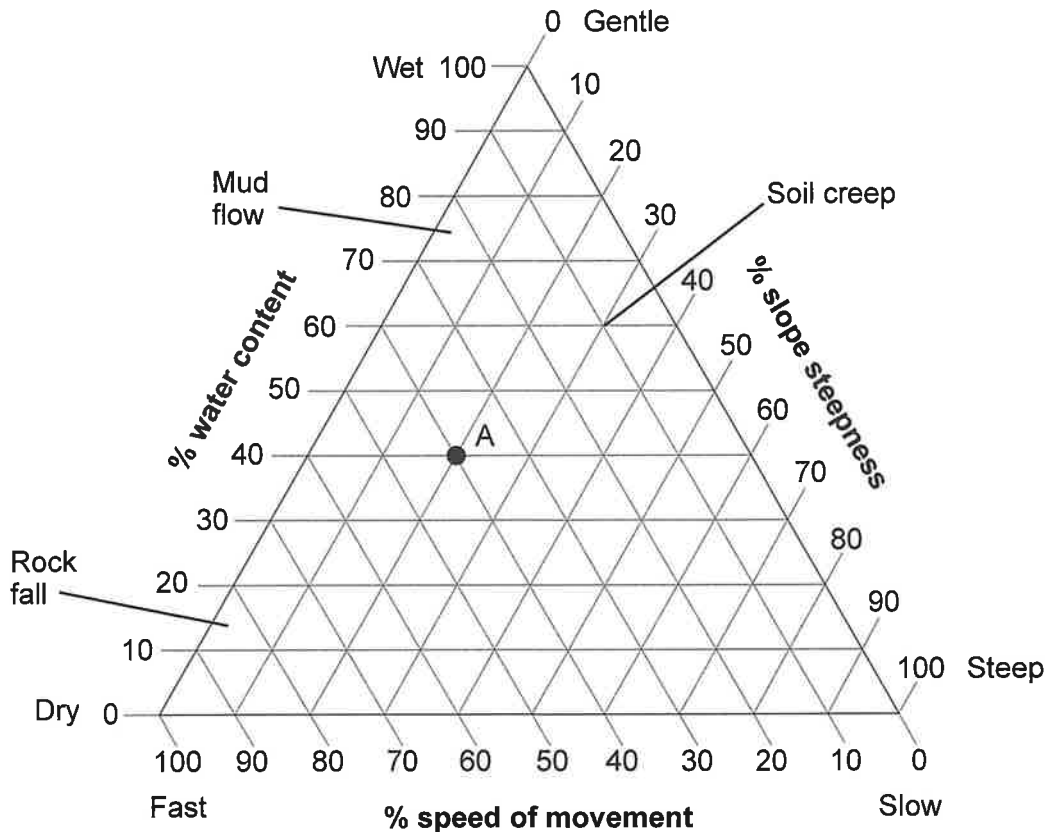6.      (b)     Examine the reasons why desertification is accelerating in some arid regions.            [10]

# End of Option C

**Option D — Geophysical hazards**

Answer the following question.

7. The triangular graph shows some characteristics of mass movement.



(a) (i) Identify the mass movement type with the slowest speed of movement. [1]

(ii) State the percentage slope steepness for point **A**. [1]

(b) Outline **one** situation in which a rock fall would be classified as a **secondary** hazard. [2]

(c) (i) Explain **one** reason why mass movement hazard risk could **increase** in the future. [3]

(ii) Explain **one** reason, **other than** the one you identified in (c)(i), why mass movement hazard risk could **decrease** in the future. [3]

**(Option D continues on the following page)**

**(Option D continued)**

Answer either part (a) or part (b).

**Either**

8.   (a)   Examine why earthquakes of similar magnitude may have contrasting human
           impacts.                                                                          [10]

     **Or**

8.   (b)   Examine how processes at plate boundaries affect volcanic hazard event profiles.   [10]

# End of Option D

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**Option E — Leisure, tourism and sport**

Answer the following question.

9.    Refer to the satellite photograph on page 5 of the accompanying resource booklet.

The satellite photograph shows the town of Lerwick in the Shetland Isles, Scotland.

(a)    (i)    Estimate the straight-line distance, in metres, between Fort Charlotte and
the Lodberrie.                                                                                [1]

(ii)    State **one** recreational activity that might take place at the Knab.          [1]

(b)    Outline **one** reason for the location of the Clickimin Leisure Complex.        [2]

(c)    Explain **two** management strategies to increase site resilience in **urban** tourist
hotspot areas.                                                                          [3 + 3]

Answer either part (a) or part (b).

**Either**

10.    (a)    To what extent does personal affluence affect people's participation in leisure
activities?                                                                                [10]

**Or**

10.    (b)    Examine the environmental **and** economic impacts of a festival in a rural location.    [10]
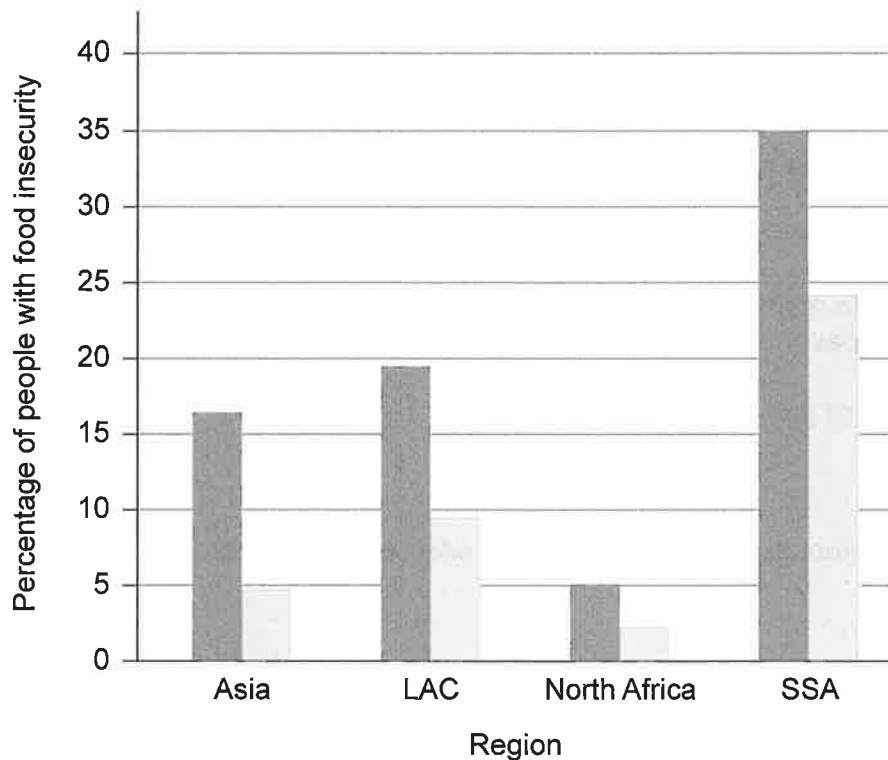
# End of Option E

**Option F — Food and health**

Answer the following question.

11. The graph shows the percentage of people with food insecurity in certain regions and the predicted change between 2018 and 2028.



Key:
■ 2018    ☐ 2028

LAC = Latin America and the Caribbean
SSA = Sub-Saharan Africa

(a)  (i)  State the percentage of people with food insecurity in Sub-Saharan Africa in 2018.                                                                      [1]

     (ii)  State which region will have the greatest decrease in percentage of people with food insecurity between 2018 and 2028.                               [1]

(b)  Outline **one** political factor that may lead to high levels of food insecurity.        [2]

(c)  Explain **two** disadvantages of relying on international aid to reduce the severity of famine in a region.                                                      [3 + 3]

**(Option F continues on the following page)**

**(Option F continued)**

Answer either part (a) or part (b).

**Either**

**12.** (a)   Examine the importance of economic factors in the incidence of water-borne
             disease.                                                                                          [10]

**Or**

**12.** (b)   To what extent do genetically modified organisms (GMOs) and vertical farming
             improve food security in different places?                                     [10]

# End of Option F

## Option G — Urban environments

Answer the following question.

13.   Refer to the graph on page 6 of the accompanying resource booklet.

The graph shows the trends in urban population growth since 1950 and predicted to 2050 in the populated continents.

   (a)   (i)   State which continent shows the greatest increase in percentage of urban population between 1950 and 2050.                    [1]

          (ii)   State the year in which **world** urbanization reached 50 %.                    [1]

   (b)   Outline **one** factor that could influence the slower urban population growth in some continents.                    [2]

   (c)   Explain **two** causes of **urban** deindustrialization.                    [3 + 3]

Answer either part (a) or part (b).

   **Either**

14.   (a)   Examine the contribution of smart city design to the sustainable management of urban systems and services.                    [10]

   **Or**

14.   (b)   Examine the role of different stakeholders in the management of urban social deprivation.                    [10]

# End of Option G

**References:**

11.   U.S. Department of Agriculture, 2018. *Drivers of Improvements in Global Food Security*. [online] Available at: https://www.usda.gov/media/blog/2018/08/21/drivers-improvements-global-food-security [Accessed 25 July 2023]. SOURCE ADAPTED.