

**ADVANCED GCE  
GEOGRAPHY A**

Options in Physical and Human Geography

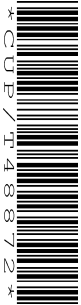
**WEDNESDAY 23 JANUARY 2008**

**2683**

Afternoon

Time: 1 hour 30 minutes

**Additional materials:** Answer Booklet (8 pages)



**INSTRUCTIONS TO CANDIDATES**

- Write your name in capital letters, your Centre Number and Candidate Number in the spaces provided on the Answer Booklet.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- Answer **two** questions, **one** from Section A and **one** from Section B.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.

**INFORMATION FOR CANDIDATES**

- The number of marks for each question is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **90**.
- Where relevant, you should include sketch maps and diagrams and make use of examples of places you have studied.
- You will be awarded marks for the quality of written communication.

This document consists of **6** printed pages and **2** blank pages.

**Section A****Group A Options**

Answer **one** question from Questions 1 to 10.

**Option 1: Coastal Environments**

- Either** 1 (a) Describe the causes of relative sea level rise and relative sea level fall. [20]  
(b) Explain the role of sea level change in the development of coastal landforms. [25]
- Or** 2 (a) Describe the origins and characteristics of sediment found in the coastal zone. [20]  
(b) Explain why beach profiles vary. [25]

**Option 2: Fluvial Environments**

- Either** 3 (a) Describe the patterns of flow found in river channels. [20]  
(b) Explain how human activities affect discharge and sediment load. [25]
- Or** 4 (a) Describe methods by which cross-sectional channel shape and channel efficiency might be investigated. [20]  
(b) Explain the inter-relationships between channel efficiency, velocity and discharge. [25]

**Option 3: Glacial and Periglacial Environments**

- Either** 5 (a) Describe the ways in which sediment is transported in glacial environments. [20]  
(b) Explain how a period of glaciation produces a variety of depositional landforms. [25]
- Or** 6 (a) Describe the weathering and slope processes associated with periglacial conditions. [20]  
(b) Explain the factors leading to the growth and decay of ice masses. [25]

**Option 4: Hot arid and Semi-arid environments**

- Either 7 (a)** With the help of labelled diagrams, describe three different types of sand dunes. [20]
- (b)** Explain how sand dunes are formed. [25]
- Or 8 (a)** Describe the ways in which human activities can use and misuse water resources in hot arid and semi-arid environments. [20]
- (b)** Explain how erosion and transport of sediment by flowing water produce distinctive desert landforms. [25]

**Option 5: Applied Climatology**

- Either 9 (a)** Describe the circumstances that can lead to wind-throw. [20]
- (b)** Explain why forest climates differ from their surroundings. [25]
- Or 10 (a)** Describe ways in which major air pollution episodes cause problems for humans. [20]
- (b)** Explain the contributions of climatological and meteorological factors to major air pollution episodes. [25]

**Section B****Group B Options**

Answer **one** question from Questions 11 to 18.

**Option 6: Agriculture and Food**

- Either 11** (a) Describe ways in which agro-ecosystems modify productivity, species diversity and sustainability. [20]
- (b) Explain how relief influences agricultural systems. [25]
- Or 12** (a) Describe the pattern of nutrition at the global scale. [20]
- (b) Explain how technology influences agricultural systems. [25]

**Option 7: Manufacturing Industry: Location, Change and Environmental Impact**

- Either 13** (a) Describe the spatial and economic characteristics of peripheral regions. [20]
- (b) Explain how governments, planners and other agencies try to regenerate industry in peripheral regions. [25]
- Or 14** (a) Describe ways in which markets can influence the location of manufacturing industries. [20]
- (b) Explain the global shift in manufacturing. [25]

**Option 8: Service Activities: Location, Change and Environmental Impact**

- Either 15** (a) Describe the principles of bid-rent theory and trade area analysis. [20]
- (b) Explain how economies of scale influence patterns of retail location. [25]
- Or 16** (a) Describe the characteristics of office parks, regional shopping centres and edge cities. [20]
- (b) Explain how decentralisation of service activities creates opportunities and problems. [25]

**Option 9: Tourism and Recreation and their Environmental Impacts**

- Either** 17 (a) Describe the following types of tourist development: resort; enclave; zone. [20]
- (b) Explain the changing pattern of holiday destinations. [25]
- Or** 18 (a) Describe the changing spatial pattern of domestic tourism within MEDCs from the 19<sup>th</sup> century onwards. [20]
- (b) Explain why governments encourage tourism and recreation. [25]





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