OCR
RECOGNISING ACHIEVEMENT

SPECIMEN

Advanced Subsidiary GCE

Geography

Unit F761: Managing Physical Environments

Specimen Paper

F761 QP

Morning/Afternoon

Time: 1 hour 30 minutes

Additional Materials: Answer Booklet (8 pages)
Insert

INSTRUCTIONS TO CANDIDATES

- Answer **two** questions from Section A, **one** from *Coastal Environments* or *River Environments* and **one** from *Cold Environments* or *Hot Arid/ Semi-Arid Environments*.
- Answer **one** question from Section B. The question answered must be on a different topic from the two topics chosen in Section A.
- Answer **three** questions in total.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [ ] at the end of each question or part of question.
- The total number of marks for this paper is **75**.

ADVICE TO CANDIDATES

- Read each question carefully and make sure you know what you have to do before starting your answer.
- You should include material from your own research and fieldwork where appropriate.

This document consists of **5** printed pages, **1** blank page and an insert.

Section A

Candidates should answer **two** questions, selecting **one** from Question 1 **or** 2 and **one** from Question 3 **or** 4.

In their answers candidates should refer to specific examples taken from their studies.

Coastal Environments

1 (a) (i) Identify and describe the features shown on **Fig. 1**. **[4]**

(ii) Compare the processes which affect the shoreline and the cliff face. **[6]**

(b) Show how **two** factors influence the use of land in coastal areas? **[6]**

(c) With reference to **one** or more located examples, explain how management schemes in coastal areas can provide protection from coastal processes. **[9]**

River Environments

2 (a) (i) Identify and describe the features shown on **Fig. 2**. **[4]**

(ii) Compare the processes which affect the shape of the river channel with those that operate on the river valley slopes. **[6]**

(b) Show how **two** factors influence the use of land along river banks? **[6]**

(c) With reference to **one** or more located examples, explain how the human development of river basins can increase the risk of flooding. **[9]**

Cold Environments

3 **(a)** Use **Fig. 3** to describe the main features of the climate at Frobisher Bay. **[4]**

(b) Account for **two** weathering processes that are likely to occur in cold environments. **[6]**

(c) Explain the formation of either outwash plains or cirques. **[6]**

(d) Comment on the problems associated with the sustainable management of two contrasting cold environments. **[9]**

Hot Arid/ Semi-Arid Environments

4 **(a)** Use **Fig. 4** to describe the main features of the climate at Tamanrasset. **[4]**

(b) Explain **two** ways in which climate influences the vegetation in hot arid and semi-arid environments. **[6]**

(c) Explain the formation of **one** named landform that occurs in hot arid and semi-arid environments. **[6]**

(d) Comment on the problems associated with the sustainable management of two contrasting hot arid and semi-arid environments. **[9]**

Section A Total [50]

Section B

Candidates should answer **one** of the following questions.

The question answered must be on a different topic from the two topics chosen in Section A.

5 With reference to located examples, describe and explain the ways in which human activities might lead to conflicts in *coastal areas*, and examine what is being done to reduce such conflicts. **[25]**

6 With reference to specific river basin(s), describe and explain the ways in which human activities might lead to conflicts in *river environments*, and examine what is being done to reduce such conflicts. **[25]**

7 With reference to located examples, discuss how sustainable development strategies can reduce the threats to communities and the environment in *cold environments*. **[25]**

8 With reference to located examples, discuss how sustainable development strategies can reduce the threats to communities and the environment in *hot arid/ semi-arid environments*. **[25]**

Section B Total [25]

Paper Total [75]

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OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Advanced Subsidiary GCE

GEOGRAPHY F761 MS

Unit F761: Managing Physical Environments

Specimen Mark Scheme

The maximum mark for this paper is **75**.

This document consists of **14** printed pages and **2** blank pages.

Section A		
Question Number	**Answer**	**Marks**
1(a)(i)	**Identify and describe the features shown on Fig. 1.** Features may include: stacks, stumps, arch, headland, cliff, wave-cut platform. **Level 2:** Clear description of landscape and individual features within it. Use of technical language to describe the features. **Level 1:** Basic description which identifies the whole nature of the landscape. Limited or inaccurate appreciation of individual features and limited use of technical language.	**[3-4]** **[0-2]**
(ii)	**Compare the processes which affect the shoreline and cliff face** Shoreline processes such as: hydraulic corrosion, attrition, solution. Also rising sea level or tidal factors may be included. Cliff face processes, include types of weathering and mass movement. **Level 2:** Clear understanding of the range of appropriate processes with clear attempt at comparison. Highest level answers suggest why they are different. Use of technical language to identify different processes. **Level 1:** Some appreciation of a limited range of processes which operate in the two areas. No attempt at comparison – probably two lists. Gaps in technical language.	**[5-6]** **[0-4]**
(b)	**Show how two factors influence the use of land in coastal areas?** This could be answered in a generic way such as: cost, planning controls, risk of erosion, climate etc or be more focused on why individual users of coastal areas locate there e.g. Heavy industry to import raw materials cheaply, cheap land, ease of disposing of waste etc **Level 2:** Identifies two factors in depth which go beyond industrial and residential and uses **or** considers factors other than scenic and climatic. Highest level answers may include other uses such as recreation, transportation or even agricultural/aquacultural. **Level 1:** Limited range of factors at a superficial level and a limited number of uses which will probably include industrial and residential uses.	**[5-6]** **[0-4]**

Section A		
Question Number	**Answer**	**Marks**
1(c)	**With reference to one or more located examples, explain how management schemes in coastal areas can provide protection from coastal processes.** Many may contrast hard engineering, e.g. breakwater, groynes, gabions, seawalls, with soft engineering, e.g. beach replenishment. Planned retreat can also be expected. Others may include various slope management methods used to protect cliffs, e.g. reducing slope angle. Some may widen 'management' to look at planning controls, conservation of dune systems etc Max Level 1 if no named examples. **Level 3:** Uses well chosen examples to describe a number of management schemes and offers a clear understanding of how they work in relation to the prevailing processes. Answer is well structured with almost faultless grammar and spelling. Geographical terminology is used accurately. **Level 2:** Clearly identified examples used to describe management schemes with some appreciation of how they work. . Answers may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. **Level 1:** Limited use of examples. Descriptive observations of coastal defence schemes (rather than management) with limited explanation and thin appreciation of links to coastal processes. Communication is basic with little structure and inaccurate spelling. If no named example then top of level 1 Max.	**[8-9]** **[5-7]** **[0-4]**
2(a)(i)	**Identify and describe the features shown on Fig. 2.** Candidates will probably focus on meander and its main constituents, e.g. slip-off slope, undercutting. **Level 2:** Clear description of landscape and individual features within it. Use of technical language to describe the features. **Level 1:** Clear description which identifies the whole nature of the landscape. Limited or inaccurate appreciation of individual features and limited use of technical language.	**[3-4]** **[0-2]**
(ii)	**Compare the processes which affect the shape of the river channel with those that operate on the river valley slopes.** Most candidates will probably look at the internal processes of meanders so referring to deposition and erosion (hydraulic, corrasion, solution) linked to the current's energy/speed. River valley slopes are subject to weathering and various forms of mass movement. **Level 2:** Clear understanding of the range of appropriate processes with clear attempt at comparison. Highest level answers suggest why they are different. Use of technical language to identify different processes. **Level 1:** Some appreciation of a limited range of processes which operate in the two areas. No attempt at comparison – probably two lists. Gaps in technical language.	**[5-6]** **[0-4]**

Section A		
Question Number	**Answer**	**Marks**
2(b)	**Show how two factors influence the use of land along river banks?** This could be answered in a generic way such as: cost, planning controls, risk of erosion/flood, size of river etc or be more focused on why individual users of river banks locate there e.g. Heavy industry to transport raw materials cheaply, cheap land, ease of disposing of waste, water supply etc. **Level 2:** Identifies two factors in depth which go beyond industrial and residential land uses **or** considers factors other than water supply and river size. Highest level answers may include other uses such as recreation, transportation or even agricultural. **Level 1:** Limited range of factors at a superficial level and a limited number of uses which will probably include industrial and residential uses.	**[5-6]** **[0-4]**
(c)	**With reference to one or more located examples, explain how the human development of river basins can increase the risk of flooding.** Clearly the exact range of developments will vary with the chosen example but will probably include residential development creating more impervious surfaces, removal of trees so greater runoff, the nature of farming so reducing infiltration, construction of dams and/or bridges restricting channel flow etc. Max Level 1 if no named examples. **Level 3:** Uses well chosen examples to explain how specific types of development have altered slope, surface or drainage and how this has reduced lag times and increased the risk of flooding. Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. **Level 2:** Clearly identified examples used to describe flooding events with some appreciation of how development has increased flood risks. Answers may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. **Level 1:** Limited use of examples. Descriptive observations about flooding with tentative links to the development of river basins. Communication is basic with little structure and inaccurate spelling. If no named example then top of level 1 Max.	**[8-9]** **[5-7]** **[0-4]**

Section A		
Question Number	**Answer**	**Marks**
3(a)	**Use Fig. 3 to describe the main features of the climate at Frobisher Bay.** Low total precipitation, summer and autumn max, low annual range of precipitation, low temp overall ranging from -25ºC in winter to 10ºC in July. Large temp range of 35ºC. 9 months below freezing. **Level 2:** Uses the data to describe patterns of rainfall and temperature and identifies seasonal differences across the year. **Level 1:** Basic description which identifies patterns of rainfall and temperature or lists figures.	**[3-4]** **[0-2]**
3(b)	**Account for two weathering processes that are likely to occur in cold environments.** Majority will focus on freeze-thaw but equally valid is chemical (solution) biological (organic acids) which may be related to summer thaw. In summer wet-dry and thermal contraction (warm days/cold nights) may operate. Max Level 1 if only one process explained. **Level 2:** Uses named example(s) of processes with clear links to cold climates and detailed explanation of the processes. Good use of technical language. **Level 1:** Explains how the particular process(es) operate in general terms with some use of technical language and tentative links to climate.	**[5-6]** **[0-4]**
(c)	**Explain the formation of either outwash plains or cirques.** Outwash plain – basic answer is about meltwater deposits. Higher level answers should focus on explaining features of the plain such as braiding, grading of material with clear cause-effect. Cirques – basic answer is about freeze-thaw and ice rotation (top of L1). Higher level answers may start with nivation hollows before looking at ice patch processes with clear cause-effect. **Level 2:** Uses technical language to name and explain the formation of the particular landform. Thorough understanding of the range of processes involved in its formation. **Level 1:** Limited or basic appreciation of the processes involved in its formation. Some limited use of technical language.	**[5-6]** **[0-4]**

Section A		
Question Number	**Answer**	**Marks**
(d)	**Comment on the problems associated with the sustainable management of two contrasting cold environments.** Problems will vary with the nature of the environments chosen and may include Physical problems such as harsh climate, perma-frost, pollution, soil erosion and landslides, destruction of habitats, deforestation, etc. Economic problems such as cost, road building, labour, need for power supplies etc and Social such as modification of existing traditional cultures etc . The stress is on sustainable management and the problems therein rather than problems per se. There is no requirement for there to be an equal balance between the two contrasting environments but if either missing then max L2. **Level 3:** Very thorough reference to contrasting examples and brings in good locational detail. Identifies a range of problems which goes well beyond the simple physical and ties them into sustainable management. Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. **[8-9]** **Level 2:** Clear reference to contrasting examples and brings in locational detail. Identifies a limited range of problems which may not go beyond physical but makes a limited attempt to tie them into sustainable management . Answers may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. **[5-7]** **Level 1:** Limited, if any, reference to contrasting examples and little locational detail. Identifies few problems which may not go beyond basic physical and there is no attempt to tie them into sustainable management. Communication is basic with little structure and inaccurate spelling. **[0-4]**	
4(a)	**Use Fig. 4 to describe the main features of the climate at Tamanrasset.** Very low total precipitation, summer precipitation, 5 months drought. High temp overall ranging from 12ºC in Jan to 34ºC in June. Temp range of 22ºC but large diurnal range. **Level 2:** Uses the data to describe patterns of rainfall and temperature and identifies seasonal differences across the year. **[3-4]** **Level 1:** Basic description which identifies patterns of temperature and rainfall. Limited use of data. **[0-2]**	
(b)	**Explain two ways in which climate influences the vegetation in hot arid and semi-arid environments.** Majority will focus on how vegetation adapts to drought, e.g. deep roots, storage (in roots or stems) reduced transpiration, e.g. thick 'skins', needle leaves etc., quick reproductive cycle following rains. Also vegetation adapts to strong winds, high temps and large temp ranges. Level 2 for a well-labelled diagram if adaptations linked to climate. **Level 2:** Detailed observations about how climate affects biomass and types of vegetation. Some observations about how plants might adapt to the harsh climatic conditions. **[5-6]**	
Section A		

Question Number	Answer	Marks
4(b) cont'd	**Level 1:** Largely descriptive account of the types/range of vegetation found in hot arid/semi-arid environments with some clear links to the climate.	**[0-4]**
4(c)	**Explain the formation of <u>one</u> named landform that occurs in hot arid and semi-arid environments.** There are a range of possible landforms reflecting the range of hot arid environments, i.e. sand or rock. Candidates should be secure on the scale of a landform. Landforms include: sand dunes, canyons, wadis, sculptured rocks and salt pans but candidates can go beyond the specification, e.g. Mesas and Buttes. Max 2 marks if landform not clearly identified. **Level 2:** Uses technical language to name and explain the formation of a particular landform. Thorough understanding of the range of processes involved in its formation. **Level 1:** Landform named with some appreciation of the processes involved in its formation. Some limited use of technical language.	**[5-6]** **[0-4]**
4(d)	**Comment on the problems associated with the sustainable management of two contrasting hot arid and semi-arid environments.** Problems will vary with the nature of the environments chosen and may include Physical problems such as harsh climate, drought, pollution, soil erosion and landslides, destruction of habitat, Economic problems such as cost, road building, labour, need for power supplies Social such as modification of existing traditional cultures. The stress is on sustainable management and the problems therein rather than problems per se. There is no requirement for there to be an equal balance between the two contrasting environments but if either missing then max L2. **Level 3:** Very thorough reference to contrasting examples and brings in good locational detail. Identifies a range of problems which goes well beyond the simple physical and ties them into sustainable management . Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. **Level 2:** Clear reference to contrasting examples and brings in locational detail. Identifies a limited range of problems which may not go beyond physical but makes a limited attempt to tie them into sustainable management . Answers may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology.	**[8-9]** **[5-7]**

Section A		
Question Number	**Answer**	**Marks**
4(d) cont'd	**Level 1:** Limited, if any, reference to contrasting examples and little locational detail. Identifies few problems which may not go beyond basic physical and there is no attempt to tie them into sustainable management. Communication is basic with little structure and inaccurate spelling.	**[0-4]**
	Section A Total	**[50]**

Section B		
Question Number	**Answer**	**Marks**
5	**With reference to located examples, explain the ways in which human activities might lead to conflicts in *coastal areas*, and examine what is being done to reduce such conflicts.** Human activities include: industry, transport, housing, energy, recreation and conservation. Conflicts may occur between them or even within the same activity, e.g. recreation – swimming and power boating conflict. Reduction strategies could include planning controls, zoning, bans, management schemes etc. **AO1 Knowledge and understanding.** **Level 3** 11-13 Detailed knowledge and understanding of human activities in coastal areas and why these may conflict. Cause and effect is well understood and there is effective use of detailed exemplification. **Level 2** 7-10 Some knowledge and understanding of human activities in coastal areas and why these may conflict. Cause and effect is understood and there is use of exemplification. **Level 1** 1-6 Limited knowledge and understanding of human activities in coastal areas and why these may conflict. Cause and effect is not well understood and there is limited exemplification. If no named example then top of level 1 Max. **AO2 Analysis and application** **Level 3** 5 Clear analysis of the issue of conflict and an effective evaluation of ways of reducing such conflicts. **Level 2** 3-4 Some analysis of the issue of conflict and a limited, if any, evaluation of ways of reducing such conflicts. **Level 1** 1-2 Limited analysis of the issue of conflict and no attempt to evaluate ways of reducing such conflicts **AO3 Skills and communication** **Level 3** 6-7 Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. There is a clear conclusion. **Level 2** 4-5 Answer may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. There is a limited conclusion. **Level 1** 1-3 Communication is basic with little structure and inaccurate spelling. There is no attempt at a conclusion.	**[25]**

Section B		
Question Number	**Answer**	**Marks**
6	**With reference to a specific river basin(s), explain the ways in which human activities might lead to conflicts in *river environments*, and examine what is being done to reduce such conflicts.** Human activities include: industry, transport, housing, energy, water supply, recreation and conservation. Conflicts may occur between them or even within the same activity, e.g. recreation – fishing and boating may conflict. Reduction strategies could include planning controls, zoning, bans, management schemes etc. Max Level 1 If no reference to named examples. **AO1 Knowledge and understanding.** **Level 3** 11-13 Detailed knowledge and understanding of human activities in river environments areas and why these may conflict. Cause and effect is well understood and there is effective use of detailed exemplification. **Level 2** 7-10 Some knowledge and understanding of human activities in river environments and why these may conflict. Cause and effect is understood and there is use of exemplification. **Level 1** 1-6 Limited knowledge and understanding of human activities in river environments and why these may conflict. Cause and effect is not well understood and there is limited exemplification. If no named example then top of level 1 Max. **AO2 Analysis and application** **Level 3** 5 Clear analysis of the issue of conflict and an effective evaluation of ways of reducing such conflicts. **Level 2** 3-4 Some analysis of the issue of conflict and a limited, if any, evaluation of ways of reducing such conflicts. **Level 1** 1-2 Limited analysis of the issue of conflict and no attempt to evaluate ways of reducing such conflicts **AO3 Skills and communication** **Level 3** 6-7 Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. There is a clear conclusion. **Level 2** 4-5 Answer may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. There is a limited conclusion.	**[25]**

Section B		
Question Number	**Answer**	**Marks**
6 cont'd	**Level 1** 1-3 Communication is basic with little structure and inaccurate spelling. There is no attempt at a conclusion.	
7	**With reference to located examples, discuss how sustainable development strategies can reduce the threats to communities and the environment in *cold environments*.** Candidates need to identify and explain the threats to communities and the environment such as: resource exploitation, e.g. minerals, forestry etc., recreation and tourism, residential and industrial development, transport etc. and their impacts on communities and the environment (including habitats). Candidates show some appreciation of what constitutes a sustainable development strategy and how this may reduce the threats, e.g. planning, legal controls, conservation etc. Max Level 1 If no reference to named examples. **AO1 Knowledge and understanding.** **Level 3** 11-13 Detailed knowledge and understanding of sustainable development strategies in cold environments and why these may reduce threats to communities and the environment. Cause and effect is well understood and there is effective use of detailed exemplification. **Level 2** 7-10 Some knowledge and understanding of sustainable development strategies in cold environments and why these may reduce threats to communities and the environment. Cause and effect is understood and there is use of exemplification. **Level 1** 1-6 Limited knowledge and understanding of sustainable development strategies in cold environments. Cause and effect is not well understood and there is limited exemplification. If no named example then top of level 1 Max. **AO2 Analysis and application** **Level 3** 5 Clear analysis of the issue of threat and an effective evaluation of the strategies used to reduce such threats. **Level 2** 3-4 Some analysis of the issue of threat and a limited, if any, evaluation of some of the strategies used to reduce such threats. **Level 1** 1-2 Limited analysis of the issue of threat and no attempt to evaluate strategies used to reduce such threats.	**[25]**

Section B		
Question Number	**Answer**	**Marks**
7 cont'd	**AO3 Skills and communication** **Level** 3 6-7 Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. There is a clear conclusion. **Level** 2 4-5 Answer may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. There is a limited conclusion. **Level** 1 1-3 Communication is basic with little structure and inaccurate spelling. There is no attempt at a conclusion	
8	**With reference to located examples, discuss how sustainable development strategies can reduce the threats to communities and the environment in *hot arid/ semi-arid environments*.** Candidates need to identify and explain the threats to communities and the environment such as: resource exploitation, e.g. minerals, recreation and tourism, agricultural development, transport etc. and their impacts on communities and the environment (including habitats). Candidates show some appreciation of what constitutes a sustainable development strategy and how this may reduce the threats, e.g. planning, legal controls, conservation etc. Max Level 1 If no reference to named examples. **AO1 Knowledge and understanding.** **Level 3** 11-13 Detailed knowledge and understanding of sustainable development strategies in arid environments and why these may reduce threats to communities and the environment. Cause and effect is well understood and there is effective use of detailed exemplification. **Level 2** 7-10 Some knowledge and understanding of sustainable development strategies in arid environments and why these may reduce threats to communities and the environment. Cause and effect is understood and there is use of exemplification. **Level 1** 1-6 Limited knowledge and understanding of sustainable development strategies in arid environments. Cause and effect is not well understood and there is limited exemplification. If no named example then top of level 1 Max.	

Section B		
Question Number	**Answer**	**Marks**
8 cont'd	**AO2 Analysis and application** **Level 3** 5 Clear analysis of the issue of threat and an effective evaluation of the strategies used to reduce such threats. **Level 2** 3-4 Some analysis of the issue of threat and a limited, if any, evaluation of some of the strategies used to reduce such threats. **Level 1** 1-2 Limited analysis of the issue of threat and no attempt to evaluate strategies used to reduce such threats. **AO3 Skills and communication** **Level 3** 6-7 Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. There is a clear conclusion. **Level 2** 4-5 Answer may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. There is a limited conclusion. **Level 1** 1-3 Communication is basic with little structure and inaccurate spelling. There is no attempt at a conclusion	**[25]**
	Section B Total	**[25]**
	Paper Total	**[75]**

Assessment Objectives Grid (includes QWC)

Question 1 and 2	AO1	AO2	AO3	Total
Q1-2(a)(i)	4	0	0	**4**
Q1-2(a)(ii)	3	1	2	**6**
Q1-2 (b)	2	2	2	**6**
Q1-2 (c)	2	2	5	**9**

Questions 3 and 4	AO1	AO2	AO3	Total
(a)	4	0	0	**4**
(b)	3	1	2	**6**
(c)	3	2	1	**6**
(d)	4	2	3	**9**
5-8	12	5	8	**25**
Totals	**37**	**15**	**23**	**75**

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