

F761 Managing Physical Environments

Question		Expected Answers	Marks	Rationale
Section A				
1	(a)	Study Figure 1, a map showing the flood management scheme at Blandford Forum, Dorset.		
	(i)	<p>Describe the ways in which the flooding risk is being managed in the area shown in Fig 1.</p>	<p>Indicative content: Flood bank, flood wall, pumping station, wash lands or equivalent.</p> <p>Level 2: Use of technical language to identify ways. Ways in which methods manage flooding risk is described. (3-4marks)</p> <p>Level 1: Limited use of technical language to identify way(s). One done well may reach the top of this level. (0-2marks)</p>	<p>4</p> <p>Range or depth, but must have 2 ways for L2.</p>
	(ii)	<p>Explain two different ways in which development in a river basin such as this may increase the risk of flooding.</p>	<p>Indicative content: Development likely to focus on increasing urbanisation and deforestation although references to other issues such as agriculture may be relevant. Impact on rate/amount of surface run-off may enable effective explanation.</p> <p>Level 2: Clear understanding of two appropriate developments with detailed explanation. Use of technical language to identify different processes involved. (5-6marks)</p>	<p>6</p> <p>Must relate to flooding risk, not the severity/likelihood of the impact e.g. building on flood plain, so more likely to be flooded. Fig 1 does not have to be used.</p>

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				<p>Level 1: Some appreciation of the developments involved with limited understanding of the links to flooding. Gaps in technical language. One done well may reach the top of this level. (0-4marks)</p>		
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Question		Expected Answers	Marks	Rationale
	(b) Show how two physical factors influence river erosion.	<p>Indicative content: Factors include: river energy/velocity/volume, sediment supply, rock type.</p> <p>Level 2: Identifies two factors and shows their influence. (5-6marks)</p> <p>Level 1: Identifies valid factor(s) One done well may reach the top of this level. (0-4marks)</p>	6	Answers may refer to rate and/or type of erosion.
	(c) Explain the possible conflicts that may result from the variety of human activities found in one located river basin.	<p>Indicative content: Conflicts include those between industrial development, transportation, residential development, energy, recreation and leisure, conservation.</p> <p>Level 3: Uses well chosen example to explain at least two conflicts. Links explicitly explained. Answer is well structured with almost faultless grammar and spelling. Geographical terminology is used accurately. (8-9marks)</p> <p>Level 2: Clearly identified example used to explain at least one valid conflict. Links stated. Answers may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. (5-7marks)</p>	9	Conflicts may be between different recreation/leisure/tourism activities.

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			<p>Level 1: Limited use of example. Descriptive observations of human activity(s). No links established. Communication is basic with little structure and inaccurate spelling.</p> <p>If no located example then top L1 max. (0-4marks)</p>		
			Total	25	

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Question		Expected Answers	Marks	Rationale
2	(a)	Study Fig 2, a photograph of a stretch of coastline at Teignmouth, Devon.		
	(i)	<p>Describe the ways in which the coastal area shown in Fig 2 is being protected from physical processes.</p> <p>Indicative content: Ways include groynes, vertical sea wall, recurved sea wall/bull nose sea wall, cliff regrading, cliff face protection, beach nourishment.</p> <p>Level 2: Use of technical language to identify ways. Ways method protects coastline are described. (3-4marks)</p> <p>Level 1: Limited use of technical language to identify way(s). One done well may reach the top of this level. (0-2marks)</p>	4	Range or depth, but must have 2 ways for L2.
	(ii)	<p>Explain how two of these ways provide protection from wave action.</p> <p>Indicative content: Recurved/bull-nosed sea wall=reflects wave energy; groynes=stop longshore drift and retain beach which absorbs wave energy; main sea wall is more resistant to erosion than cliff; beach nourishment increases size of beach and absorbs energy of breaking waves.</p> <p>Level 2: Clear understanding of two ways with detailed explanation. Explicit links to wave energy/processes. Use of technical language to identify different means of protection. (5-6marks)</p> <p>Level 1: Some appreciation of the methods involved with limited understanding of the links to wave action. Gaps in technical language. One done well may reach the top of this level. (0-4marks)</p>	6	

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Question		Expected Answers	Marks	Rationale
	(b) Show how two physical factors influence coastal erosion.	<p>Indicative content: Factors include: wave energy, rock type and structure, beach length/width, longshore drift, aspect and sea level change.</p> <p>Level 2: Identifies two factors and shows their influence. (5-6marks)</p> <p>Level 1: Identifies valid factor(s) One done well may reach the top of this level. (0-4marks)</p>	6	Answers may refer to rate and/or type of erosion. Concordant/discordant coastlines also relevant.
	(c) Explain the possible conflicts that may result from the variety of human activities found in one located coastal area.	<p>Indicative content: Conflicts include those between industrial development, transportation, residential development, energy, recreation and leisure, conservation.</p> <p>Level 3: Uses well chosen example to explain at least two conflicts. Links explicitly explained. Answer is well structured with almost faultless grammar and spelling. Geographical terminology is used accurately. (8-9marks)</p> <p>Level 2: Clearly identified example used to explain at least one valid conflict. Links stated. Answers may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. (5-7marks)</p>	9	Conflicts may be between different recreation/leisure/tourism activities.

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			<p>Level 1: Limited use of example. Descriptive observations of human activity(s). No links established. Communication is basic with little structure and inaccurate spelling. (0-4marks)</p> <p>If no located example then top L1 max.</p>		
			Total	25	

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Question		Expected Answers	Marks	Rationale
3	(a)	Study the map extract, a 1:50000 OS map of part of the Lake District.		
	(i)	<p>Identify the distinctive landforms produced by ice, A, B, C and D, shown in the map extract.</p> <p>A= U-shaped valley/trough B=Corrie/cirque/cwm/tarn C=Arête D=Hanging valley/waterfall</p>	4	Point mark. One mark for each correct answer.
	(ii)	<p>Explain how ice shaped one of these distinctive landforms.</p> <p>Indicative content: Action of moving ice via plucking/quarrying and abrasion. Role of weathering via freeze-thaw also relevant.</p> <p>Level 2: Uses specific process mechanisms with clear links to landform produced. Good use of technical language. (5-6marks)</p> <p>Level 1: Explains how the generic process(es) operate with some use of technical language and tentative links to landform. (0-4marks)</p>	6	No double penalty if incorrect glacial landform in ai.

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Question		Expected Answers	Marks	Rationale
	(b) Outline two ways in which cold environments can provide economic opportunities.	<p>Indicative content: Opportunities include: resource exploitation, agriculture, recreation and tourism. Economic benefits include employment, spending in the local economy, multiplier effect, and improved infrastructure.</p> <p>Level 2: Identifies two opportunities and clearly outlines the economic benefit. (5-6marks)</p> <p>Level 1: Identifies opportunity(ies). One outlined well may reach the top of this level. (0-4marks)</p>	6	Two ways may come from one opportunity.

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Question	Expected Answers	Marks	Rationale
(c)	<p>With reference to one or more located examples, explain why cold environments can be easily damaged.</p>	9	May focus on how rather than why.
	<p>Indicative content: Cold environments are easily damaged due to their finely balanced ecosystems in the extreme climatic conditions. They have short growing season, lack of water, thin soils, and extreme low temperatures. Vulnerability relates to slow rates of development and recovery.</p> <p>Level 3: Uses well chosen example(s) to explain the impact of factors. Links explicitly explained. Vulnerability to damage should be explicit. Answer is well structured with almost faultless grammar and spelling. Geographical terminology is used accurately. (8-9marks)</p> <p>Level 2: Clearly identified example(s) used to explain some valid factors. Links stated. Vulnerability may be implied. Answers may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. (5-7marks)</p> <p>Level 1: Limited use of example(s). Descriptive observations of human activities/damage. No links established. Vulnerability unlikely to be addressed. Communication is basic with little structure and inaccurate spelling. If no located example then top of level 1 Max. (0-4marks)</p>		
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Question		Expected Answers	Marks	Rationale
4	(a)	Study Fig 3, a photograph of Monument Valley, Utah, U.S.A.		
	(i)	Identify and describe two distinctive landforms shown in Fig 3.	4	Point mark. One mark for a valid landform and one mark for appropriate description.
	(ii)	Explain how physical processes shaped one of these landforms.	6	No double penalty if incorrect arid landform in ai.
	(b)	Outline two ways in which hot arid/semi-arid environments can provide economic opportunities.	6	Two ways may come from one opportunity.

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			<p>Level 1: Identifies opportunity(ies). One outlined well may reach the top of this level. (0-4marks)</p>		
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Question	Expected Answers	Marks	Rationale	
(c)	<p>With reference to one or more located examples, explain why hot arid/semi-arid environments can be easily damaged.</p>	<p>Indicative content: Hot arid and semi-arid environments are easily damaged due to lack of water, thin soils, and extreme high temperatures. Vulnerability to damage relates to slow rates of development and recovery.</p> <p>Level 3: Uses well chosen example(s) to explain the impact of factors. Links explicitly explained. Vulnerability to damage should be explicit. Answer is well structured with almost faultless grammar and spelling. Geographical terminology is used accurately. (8-9marks)</p> <p>Level 2: Clearly identified example(s) used to explain some valid factors. Links stated. Vulnerability may be implied. Answers may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. (5-7marks)</p> <p>Level 1: Limited use of example(s). Descriptive observations of human activities/damage. No links established. Vulnerability unlikely to be addressed. Communication is basic with little structure and inaccurate spelling. If no located example then top of level 1 Max. (0-4marks)</p>	<p>9</p>	<p>May focus on how rather than why.</p>
	Total	25		

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Question	Expected Answers	Marks	Rationale	
Section B				
5	<p>With reference to specific river basins, examine the need for management in resolving issues resulting from their development.</p>	<p>Indicative content: Successful management requires an understanding of the physical processes that occur in river environments. Detailed planning and management is often about balancing socio-economic and environmental needs. Development issues include those associated with conflicting land uses.</p> <p>AO1 Knowledge and understanding. Level 3: Detailed knowledge and understanding of development issues in river environments and the need for planning and management required for their resolution. Cause and effect is well understood and there is effective use of detailed exemplification. (11-13marks)</p> <p>Level 2: Some knowledge and understanding of development issues in river environments and the need for planning and management required for their resolution. Cause and effect is understood and there is use of exemplification. (7-10marks)</p> <p>Level 1: Limited knowledge and understanding of development issues in river environments and the</p>	25	<p>There may be a range of issues resulting from one consequence of development e.g. flooding causing property damage, water contamination, and habitat destruction.</p> <p>Focus likely to be on methods/strategies rather than the need.</p>

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		<p>need for planning and management required for their resolution. Cause and effect is not well understood and there is limited exemplification. (0-6marks) If no located example then top of Level 1 Max. If only ONE example, then top of Level 2 Max.</p> <p>AO2 Analysis and application Level 3: Clear analysis and application of knowledge and understanding to the demands of the question. (5marks)</p> <p>Level 2: Some analysis and application of knowledge and understanding to the demands of the question. (3-4marks)</p> <p>Level 1: Limited analysis and application of knowledge and understanding to the demands of the question. (0-2marks)</p> <p>AO3 Skills and communication Level 3: Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. Clear conclusion(s) is/are drawn. (6-7marks)</p> <p>Level 2: Answer may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. Limited conclusion(s) is/are drawn.</p>		
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		(4-5marks) Level 1: Communication is basic with little structure and inaccurate spelling. No conclusion is drawn. (0-3marks)		
		Total	25	

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Question	Expected Answers	Marks	Rationale
<p>6</p> <p>With reference to specific coastal areas, examine the need for management in resolving issues resulting from their development.</p>	<p>Indicative content:</p> <p>Successful management requires an understanding of the physical processes that occur in coastal areas.</p> <p>Detailed planning and management is often about balancing socio-economic and environmental needs.</p> <p>Development issues include those associated with conflicting land uses.</p> <p>AO1 Knowledge and understanding.</p> <p>Level 3: Detailed knowledge and understanding of development issues in coastal areas and the need for planning and management required for their resolution. Cause and effect is well understood and there is effective use of detailed exemplification. (11-13marks)</p> <p>Level 2: Some knowledge and understanding of development issues in coastal areas and the need for planning and management required for their resolution. Cause and effect is understood and there is use of exemplification. (7-10marks)</p> <p>Level 1: Limited knowledge and understanding of development issues in coastal areas and the need for planning and management required for their</p>	<p>25</p>	<p>There may be a range of issues resulting from one consequence of development e.g. flooding causing property damage, water contamination, and habitat destruction.</p> <p>Focus likely to be on methods/strategies rather than the need.</p>

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		<p>resolution. Cause and effect is not well understood and there is limited exemplification.</p> <p>(0-6marks)</p> <p>If no located example then top of Level 1 Max. If only ONE example, then top of Level 2 Max.</p> <p>AO2 Analysis and application</p> <p>Level 3: Clear analysis and application of knowledge and understanding to the demands of the question. (5marks)</p> <p>Level 2: Some analysis and application of knowledge and understanding to the demands of the question. (3-4 marks)</p> <p>Level 1: Limited analysis and application of knowledge and understanding to the demands of the question. (0-2marks)</p> <p>AO3 Skills and communication</p> <p>Level 3: Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. Clear conclusion(s) is/are drawn. (6-7marks)</p> <p>Level 2: Answer may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. Limited conclusion(s) is/are drawn.</p>		
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		(4-5marks) Level 1: Communication is basic with little structure and inaccurate spelling. No conclusion is drawn. (0-3marks)		
		Total	25	

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Question	Expected Answers	Marks	Rationale
7	<p>With reference to located examples, explain how the management of cold environments needs to balance socio-economic and environmental needs.</p>	25	<p>Indicative content: Socio-economic needs include the demand for housing, jobs, energy, water, food and transportation systems. Environmental needs include conservation, regeneration, and sustainable management. To achieve a balance between the needs, careful and detailed management is required.</p> <p>AO1 Knowledge and understanding. Level 3: Detailed knowledge and understanding of socio-economic and environmental in cold environments and how these need to be managed in a balanced way. Cause and effect is well understood and there is effective use of detailed exemplification. (11-13marks)</p> <p>Level 2: Some knowledge and understanding of socio-economic and environmental needs in cold environments and how these need to be managed in a balanced way. Cause and effect is understood and there is use of exemplification. (7-10marks)</p> <p>Level 1: Limited knowledge and understanding of socio-economic and/or environmental needs in cold environments and how these need to be managed</p> <p>Clear focus on balance. Need explicitly addressed i.e. via sustainability. Social included.</p> <p>Less focus on needs being balanced. Social may not be included.</p>

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		<p>in a balanced way. Cause and effect is not well understood and there is limited exemplification. (0-6marks)</p> <p>If no located example then top of level 1 Max.</p> <p>AO2 Analysis and application Level 3: Clear analysis and application of knowledge and understanding to the demands of the question. (5marks)</p> <p>Level 2: Some analysis and application of knowledge and understanding to the demands of the question. (3-4marks)</p> <p>Level 1: Limited analysis and application of knowledge and understanding to the demands of the question. (0-2marks)</p> <p>AO3 Skills and communication Level 3: Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. Clear conclusion(s) is/are drawn. (6-7marks)</p> <p>Level 2: Answer may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. Limited conclusion(s) is/are drawn.</p>		
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		<p>(4-5marks)</p> <p>Level 1: Communication is basic with little structure and inaccurate spelling. No conclusion is drawn.</p> <p>(0-3marks)</p>		
		Total	25	

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Question	Expected Answers	Marks	Rationale
<p>8</p> <p>With reference to located examples, explain how the management of hot arid/semi-arid environments needs to balance socio-economic and environmental needs.</p>	<p>Indicative content:</p> <p>Socio-economic needs include the demand for housing, jobs, energy, water, food and transportation systems.</p> <p>Environmental needs include conservation, regeneration, and sustainable management.</p> <p>To achieve a balance between the needs, careful and detailed management is required.</p> <p>AO1 Knowledge and understanding.</p> <p>Level 3: Detailed knowledge and understanding of socio-economic and environmental in hot arid and semi-arid environments and how these need to be managed in a balanced way. Cause and effect is well understood and there is effective use of detailed exemplification. (11-13marks)</p> <p>Level 2: Some knowledge and understanding of socio-economic and environmental needs in hot arid and semi-arid environments and how these need to be managed in a balanced way. Cause and effect is understood and there is use of exemplification. (7-10marks)</p> <p>Level 1: Limited knowledge and understanding of socio-economic and/or environmental needs in hot arid and semi-arid environments and how these</p>	<p>25</p>	<p>Clear focus on balance. Need explicitly addressed i.e. via sustainability. Social included.</p> <p>Less focus on needs being balanced. Social may not be included.</p>

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		<p>need to be managed in a balanced way. Cause and effect is not well understood and there is limited exemplification. (0-6marks)</p> <p>If no located example then top of level 1 Max.</p> <p>AO2 Analysis and application Level 3: Clear analysis and application of knowledge and understanding to the demands of the question. (5marks)</p> <p>Level 2: Some analysis and application of knowledge and understanding to the demands of the question. (3-4marks)</p> <p>Level 1: Limited analysis and application of knowledge and understanding to the demands of the question. (0-2marks)</p> <p>AO3 Skills and communication Level 3: Answer is well structured with effective use of grammar and spelling. Geographical terminology is used accurately. Clear conclusion(s) is/are drawn. (6-7marks)</p> <p>Level 2: Answer may have poor structure with some inaccurate spelling and inaccurate use of geographical terminology. Limited conclusion(s) is/are drawn.</p>		
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		(4-5marks) Level 1: Communication is basic with little structure and inaccurate spelling. No conclusion is drawn. (0-3marks)		
		Total	25	