

GCSE

Geography B

Unit **A772/01**: Key Geographical Themes (Foundation Tier)

General Certificate of Secondary Education (Short Course)

Mark Scheme for June 2015

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.














All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

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These are the annotations, (including abbreviations), including those used in scoris, which are used when marking

Annotation	Meaning
	Blank Page – this annotation must be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response. Use for additional pages where candidate's response does not have an annotation or did not gain any credit.
	Unclear
	Use to indicate incorrect content for case study response (with red colour highlighter)
	Use DEV within a case study answer to show creditable detail/development
	Use DEV within a three/four mark answer to show valid detail/development of a basic idea
	Use green colour highlighter to show credited case study content written in the wrong section
	Use J within a case study answer if only one basic valid idea for bottom of Level 1
	Annotate end of answer with L1 for overall level.
	Annotate end of answer with L2 for overall level.
	Annotate end of answer with L3 for overall level.
	Use PLC to indicate place specific detail for Level 3
	Correct point
	Omission mark

Question	Answer	Marks	Guidance
1a)	1 mark for 1980 base flow = 10 (cumecs) 1 mark for 2010 peak discharge = 90 (cumecs) 1 mark for 2010 time of peak discharge = 6 (hours)	3	3 x 1 Units of measurement not needed for marks
1b)	Reasons why river flooding is more likely in 2010 could include: Less vegetation ✓ = less interception to slow down water(dev) Less vegetation ✓ = more rain reaches surface and river(dev) Urban landscape/housing ✓ = less infiltration to slow water transfer/rapid surface run off (dev) Concrete/tarmac and drains ✓ = quick transfer of water(dev) Straightened channel ✓ = causes flooding downstream (dev)	4	4 x 1 or up to 3 marks for a well developed explanation of one idea At least two reasons needed for full marks. No credit for references to why flooding is less likely in 1980 unless coherently linked to explanation for 2010 flooding.
1c)	Other causes of river flooding could include: Heavy rainfall ✓ = increased discharge (dev) Snow melt ✓ = increased discharge (dev) Impermeable bedrock ✓ saturated soil ✓ steep valley sides ✓ = quicker transfer of water into river channel (dev) Dry/frozen ground ✓ = reduces infiltration (dev) Density/shape of river network ✓ = water channelled to flood location (dev) Antecedent rainfall ✓ soil saturated = surface run off (dev) Soil erosion ✓ = less infiltration + soil clogs river channels to reduce capacity(dev) Farming/ploughing downhill ✓ = channels water down slopes into river (dev) Increased sedimentation ✓ = reduced capacity(dev) Blocked channel ✓ = build-up of water (dev)	4	2 x 2 1 mark for stated cause, second mark for explanation Award maximum of 3 marks for one well explained idea Must include two valid causes explained for full marks Explanation must be coherently linked to stated cause Credit for ideas from Fig. 2 if not used in answer to (b) Check candidate's response to (b)

Question	Answer	Marks	Guidance
1d)	<p>Flood risk reduction ideas could include:</p> <p>Barriers✓ embankments ✓ levees ✓ = increase height of banks so river can carry more discharge (dev) Flood gates✓ = control flow (dev) Sandbags✓ = to stop discharge entering property (dev) Dredging channel ✓ = to increase depth/capacity of river (dev) Dams✓ = to store/control excess river discharge (dev) Spillways/overflow channels✓ = transfer discharge way from flood risk area (dev) Ings/overflow reservoirs/controlled flooding of fields✓ = areas to store excess discharge until flood subsides (dev) Afforestation in catchment area ✓ = to intercept/store rainfall/slow down transfer of water to river network (dev) Monitoring of river network/discharge✓ = predict flood (dev) Flood warnings/evacuation plans✓ = people are safer (dev) Restrict development on floodplains✓ = less property affected (dev) Housing on stilts/floating houses✓ = increased discharge will not enter property (dev) Storm drains✓ straightening of river channel ✓ = quicker transfer of discharge away from flood risk area (dev) Widen/heighten river bridges✓ = prevent damming by river debris (dev)</p>	4	<p>2 x 2</p> <p>1 mark for stated method, second mark for explanation</p> <p>Award maximum of 3 marks for one well explained method</p> <p>Must include two methods explained for full marks Explanation must be coherently linked to stated method</p> <p>No credit for people moving away from river unless as part of a management strategy</p>
1e)	<p>Possible problems caused by rapid coastal erosion could include:</p> <p>Loss of property✓ having to re-locate✓ Costs of dismantling property✓ Rising insurance costs/no insurance cover✓ Possible loss of business✓ Fear/anxiety about future erosion✓ Disruption to transport routes✓</p>	4	<p>4 x 1 for basic ideas or up to 3 marks for a well developed explanation of one problem (either cause or consequences of the effects).</p> <p>At least two problems needed for full marks.</p> <p>No credit for references to physical causes of erosion</p>

Question	Answer	Marks	Guidance
1f)	1 mark for one correct term matched <u>or</u> two correct terms, 2 marks for all three Hydraulic action = air and water forced into cracks in rocks Attrition = pebbles smash into each other Abrasion = pebbles and rocks are crashed against the rocks	2	2 x 1 Tick <u>all</u> correct responses

Question	Answer	Marks	Guidance
1(g)	<p>Case Study: a coastal erosion management scheme.</p> <p>Indicative content <i>Named place can be a coastal settlement or stretch of coastline.</i></p> <p><i>Methods could include hard or soft engineering methods or managed retreat or a combination of methods.</i> <i>Detail could be about what is built e.g. structures, materials, location or action taken.</i></p> <p><i>Sustainability ideas could focus on construction and maintenance costs, impact on environment/wildlife habitats, impact on local people, impact on tourism/business, how long the management methods will last, success in terms of managing erosion now and in the future. Full credit if response focuses on how unsustainable the methods may be.</i></p> <p><i>Place specific detail could include additional named places affected by coastal erosion, data about erosion rates, rock type, costs of methods and evidence of success.</i></p> <p>Level 3 (7-9 marks) Demonstrates good knowledge and understanding of coastal erosion management methods and their sustainability.</p> <p>Level 2 (4-6 marks) Demonstrates sound knowledge and understanding of a coastal erosion management method and its sustainability. With valid detail for either the methods or their sustainability.</p>	9	<p>Case study will be marked using three levels</p> <p>Award mark at top of level if answer consistently meets all the criteria for the level</p> <p>Award mark at middle of level if answer meets the criteria with some omissions, errors or inconsistency</p> <p>Award mark at the bottom of level if answer only just meets the criteria with several omissions, errors or inconsistency</p> <p>Annotate end of answer with L3, L2 or L1 for overall level Use J within answer if only one basic valid idea for Level 1 Use DEV within answer to show creditable detail/development Use PLC to indicate place specific details for Level 3</p> <p>Level 3 Valid named example needed for top of Level 3</p> <p>Top of level will have detail about the coastal erosion management methods and detail about the sustainability of the methods, with place specific details. (such as credible data or other named places linked to the example given)</p> <p>Detailed response lacking place specific detail = bottom of L3</p> <p>Level 2 Valid named example needed for top of Level 2</p> <p>Top of level will have a description of a coastal erosion management method and a valid sustainability idea. Will have additional detail for either the methods or sustainability ideas.</p> <p>Bottom of level will have a basic description of coastal erosion management idea and a basic sustainability idea or ... Detail about the methods with no valid sustainability ideas</p>

Question	Answer	Marks	Guidance
	<p>Level 1 (1-3 marks) Demonstrates limited knowledge of a coastal erosion management method.</p>		<p>Level 1 Valid named example needed for top of Level 1</p> <p>Top of level will have a valid named place with a basic idea about a coastal management method</p> <p>Bottom of level will have a valid named place with no further valid information or a basic idea about coastal erosion management with no valid place</p>
	<p>Spelling, punctuation and grammar (SPaG) are assessed Using the separate marking grid on page 15</p>	<p>SPaG 3</p>	

Question	Answer	Marks	Guidance
2a) i)	1 mark for 10,000	1	1 x 1
2a) ii)	1 mark for one correct country in order or two correct countries 2 marks for all three. <i>Highest = China, then Canada, lowest = Australia</i>	1	2 x 1 Tick all correct responses
2b)	1 mark for each valid feature of Fig 10 which shows that Toyota is an MNC. Operations/employees in many different countries ✓ Located in both MEDCs and LEDCs ✓ Most employees in Japan (headquarters) ✓ High numbers of employees in east Asia ✓	2	2 x 1 Two different valid features needed No credit for development/detail for one valid feature
2c)	Possible reasons for MNCs locating in countries with lower levels of GDP per person could include: Lower wage levels ✓ large supply of surplus labour ✓ Compliant workforce/less union activity ✓ Cheaper resources/supplies ✓ Lower setting up costs ✓ lower running costs ✓ Incentives/support from LEDC governments ✓ Fewer laws/restrictions on operations in LEDCs ✓ Lower taxes/tax breaks ✓ All of the above can be linked to lower costs/higher profits (dev)	4	4 x 1 for basic ideas or up to 3 marks for a well developed explanation of one idea At least two reasons needed for full marks

Question	Answer	Marks	Guidance
2d)	<p>Possible benefits of MNC investment could include: Jobs created ✓ training for workers ✓ more skilled workforce ✓ Wages/taxes boost national economy ✓ Multiplier effect ✓ re: suppliers and workers' spending power (dev) May encourage other MNCs to invest ✓ Access to consumer goods/higher order services produced ✓</p>	4	<p>2 x 2 or up to 3 marks for a well developed explanation of one idea</p> <p>1 mark for idea, second mark for explanation.</p> <p>Award 3 marks for one well explained benefit</p> <p>Two benefits explained needed for full marks Explanation must be coherently linked to given benefit</p>
2e)	<p>Economic activity related causes of global climate change need to be linked to increased greenhouse gas/gases and could include:</p> <p>Farming = methane gas from rice paddies/cattle Manufacturing = energy/transport related use of fossils fuels Transport = fossil fuel use increases CO₂/NO₂ levels Tourism = transport related use of fossil fuels</p> <p>Greenhouse gas/gases build up in the earth's atmosphere to trap outgoing long wave radiation causing temperatures to rise</p>	4	<p>4 x 1</p> <p>Answer must include valid ideas coherently linked to given economic activity (up to 3 marks maximum) with explanation of how increased greenhouse gas(gases) is/are causing global climate change (up to 3 marks maximum)</p> <p>No credit for ozone depletion ideas</p> <p>Economic activity must be clearly stated for full marks No credit for stated economic activity</p> <p>If range of economic activities given, credit highest scoring</p>
2f)	<p>Possible effects of global climate change could include: Rise in temperatures / global warming (or similar) ✓ Melting of polar ice caps ✓ = rising sea levels ✓ flooding of low lying land (dev) Increased extreme weather/climate events ✓ = impact on crop production (dev) + impact of severe events (dev) Spread of tropical diseases ✓ = impact on health (dev) Effects on wildlife habitats/species ✓ = species extinction (dev) Population migration due to climate change related events ✓</p>	4	<p>4 x 1 for basic ideas or up to 3 marks for a well developed explanation of one idea (can be for cause of the effect and/or the consequences)</p> <p>At least two effects needed for full marks</p>

Question	Answer	Marks	Guidance
2(g)	<p>Case Study: an aid project in an LEDC</p> <p>Indicative content</p> <p><i>Aid project could be large/small scale</i></p> <p><i>Involve NGO/government/international aid</i></p> <p><i>Features should focus on what the aid money is/was spent on</i></p> <p><i>farming such as new crops/methods</i></p> <p><i>health care such as clinics, medicines</i></p> <p><i>living conditions such as water supply, sanitation, housing</i></p> <p><i>industry new jobs, workshops, factories</i></p> <p><i>education new schools, adult literacy, employment training</i></p> <p><i>Effects on quality of life must be linked to project ideas and could be positive such as:</i></p> <p><i>improved health, education, job opportunities, increased wealth, better living conditions</i></p> <p><i>Credit valid ideas about negative effects on quality of life such as displacement of population by a large HEP scheme</i></p> <p><i>No credit for ideas about fundraising for aid by NGOs /aid charities</i></p> <p><i>Credit for relief aid if clearly linked to a hazard event or food shortage</i></p> <p><i>Credible place-specific detail could include data about the aid project such as money spent and or places within named LEDC linked to the project</i></p> <p><i>Credit for valid named aid project or N.G.O. or aid organisation</i></p>	9	<p>Case study will be marked using three levels</p> <p>Award mark at top of level if answer consistently meets all the criteria for the level</p> <p>Award mark at middle of level if answer meets the criteria with some omissions, errors or inconsistency</p> <p>Award mark at the bottom of level if answer only just meets the criteria with several omissions, errors or inconsistency</p> <p>Annotate end of answer with L3, L2 or L1 for overall level</p> <p>Use BP within answer if only one basic valid idea for Level 1</p> <p>Use DEV within answer to show creditable detail/development</p> <p>Use PLC to indicate place specific detail for Level 3</p> <p>Level 3</p> <p>Valid named LEDC needed for top of Level 3</p> <p>Top of level will have a detailed description of the features of a valid LEDC aid project and a detailed explanation of its impact on the local people's quality of life, with place specific detail. (such as credible data or other named places linked to the LEDC/aid project given)</p> <p>Detailed response lacking place specific detail = bottom of L3</p> <p>Level 2</p> <p>Valid named LEDC needed for top of Level 2</p> <p>Top of level will have a description of a feature of a valid LEDC aid project and an explanation of an impact on the local people's quality of life, with detail for the features or the effects</p> <p>Bottom of level will have a basic description of a feature and a basic effect on quality of life idea or ...</p> <p>Detail about the features but no valid quality of life ideas or ...</p>

Question	Answer	Marks	Guidance
	<p>Level 3 (7-9 marks) Demonstrates good knowledge and understanding of the features of an LEDC aid project and its effects on local people's quality of life.</p> <p>Level 2 (4-6 marks) Demonstrates sound knowledge and understanding of an LEDC aid project with some detail about the project or its impact on quality of life</p> <p>Level 1 (1-3 marks) Demonstrates limited knowledge and understanding of a feature of an aid project or an effect on the local people's quality of life</p>		<p>Detailed ideas about the effects of aid of quality of life with no valid aid project or features of an aid project</p> <p>Level 1 Valid named LEDC needed for top of Level 1</p> <p>Top of level will have a valid named LEDC with an aid project feature or a feature of relief aid</p> <p>Bottom of level will have a named LEDC with no further valid information or a basic idea about aid with no further valid ideas</p> <p>Maximum Level 2 (5 marks) for a credible example of relief aid</p> <p>No credit for ideas about aid charities/fund raising ideas</p>
	Spelling, punctuation and grammar (SPaG) are assessed using the separate marking grid on page 13	SPaG 3	

Spelling, punctuation and grammar (SPaG) assessment grid

High performance 3 marks
Candidates spell, punctuate and use rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.
Intermediate performance 2 marks
Candidates spell, punctuate and use rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
Threshold performance 1 mark
Candidates spell, punctuate and use rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.

The use of 0(zero) marks.

0 marks should be awarded when

- The candidate writes nothing;
- The candidate's response bears no relation to the question;
- The candidate's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.

Candidate has been supported by a scribe

Maximum of 1 mark if candidate has only written one sentence

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