

GCSE

Geography B

Unit **B563/01**: Key Geographical Themes (Foundation Tier)

General Certificate of Secondary Education

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.

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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 a valid difference linked to type or size or age such as Fig 4 housing is <i>terraced, joined, attached</i> , (or similar) <i>high density, smaller, older, cheaper, no front gardens, no garages</i>	1	1 x 1 No credit for reference to housing in Fig. 5 unless as a direct comparison with the housing in Fig. 4.
2a) ii)	1 mark for 9204	1	1 x 1
2a) iii)	1 mark for A 672	1	1 x 1
2b)	Possible reasons for demolition and clearance could include: Houses no longer fit to live in✓ New housing✓ Land cleared for other land uses✓ such as transport routes ✓, car parking✓, public open space✓ Part of a wider redevelopment scheme✓ Increase land value✓	4	4 x 1 for basic ideas or up to 3 marks for a well developed explanation of one idea At least two valid reasons needed for full marks Credit for valid detail about a new development if linked to a credible redevelopment policy. Credit for reasons why inner city locations are prime sites for redevelopment if linked to a valid idea
2c)	Possible reasons to explain location of new shopping centre should be linked to edge of town location and could include: Large site available✓ = space for buildings/parking (dev) Cheaper land ✓ = reduced costs for development (dev) More pleasant environment✓ = for shoppers/workers (dev) Near main roads✓ = easy access (dev), for deliveries (dev) customers (dev) Large population nearby✓ = potential customers/threshold population needed (dev) Brownfield site ✓ = not damaging habitats (dev)	4	2 x 2 1 mark for idea, second mark for explanation. Award maximum 3 marks for one well explained reason. Two reasons explained needed for full marks Explanation must be coherently linked to given reason

Question	Answer	Marks	Guidance
2d)	Possible effects on CBD of Oldham could include: Loss of trade for CBD shops✓ Lower footfall affects other businesses such as restaurants✓ Closure of CBD shops/businesses✓ Empty/boarded up shops attract vandalism✓ Re-location of shops/businesses to new shopping centre✓ Increase in lower order shops in CBD✓ such as charity shops✓	4	4 x 1 for basic ideas or up to 3 marks for a well developed explanation of one idea At least two effects needed for full marks
2e)i)	1 mark for higher birth rate	1	1 x 1
2e)ii)	1 mark for lower life expectancy	1	1 x 1
2f)	Reasons for why Uganda has a lower life expectancy compared to the UK (or vice versa) could include: Differences in health care✓ such as medicines (dev) treatment (dev) access to doctors (dev) hospitals (dev) Lifestyle differences✓ such as diet (dev) type of job (dev) Living conditions✓ such as sanitation (dev) access to clean water (dev) Differences in income ✓ linked to lifestyle (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 Credit ideas which explain either lower life expectancy for Uganda or higher life expectancy for UK Do not credit same idea repeated

Question	Answer	Marks	Guidance
2(g)	<p>Case Study: a population management strategy in a named country</p> <p>Indicative content <i>Named country can be an LEDC or an MEDC Strategies must relate to named country given.</i></p> <p><i>Strategies should focus on influencing the country's birth rate and people's attitudes to having children. Family planning/access to contraception Tax incentives, health care/education incentives China's one child law re: rewards and sanctions Incentives to have more children/ pro-natalist policies e.g. Singapore and France Laws to prevent abortions e.g. Ireland, Philippines.</i></p> <p><i>Success ideas must be related to strategy(ies) given and could include: decline in birth rate, improved standard of living, less pressure on resources/services Improved health/quality of life. career opportunities for women improved health for babies/children (lower infant mortality) could focus on problems linked to given strategy such as: shortage of child workers in rural areas in China increased termination of female babies 4-2-1 problem in China –looking after older relatives 'Little emperors' spoiled children and 'spare branches' in China with male/female imbalance</i></p> <p><i>Accept reference to migration control if coherently linked to the management of a named country's population growth.</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 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 detail for Level 3</p> <p>Level 3 Valid named country needed for top of Level 3</p> <p>Top of level will have a detailed description(s) of a named country's population management strategy(ies) and a clear explanation of the success of the strategy(ies) with place specific detail. (such as credible data or other named places linked to the country given)</p> <p>Detailed response lacking place specific detail = bottom of L3</p> <p>Level 2 Valid named country needed for top of Level 2</p> <p>Top of level will have a basic description of a population management strategy and a valid idea about its success. Will have additional detail about the strategy(ies) or about the success of the strategy(ies).</p>

Question	Answer	Marks	Guidance
	<p><i>Credible place-specific detail could include valid data such as birth/fertility rates, rate of population change and/or place names within given named country.</i></p> <p><i>Credit for factual information exclusive to chosen case study example.</i></p> <p><i>Credit valid name of national policy for given country, such as the 'one child policy' in China</i></p> <p><i>Check population data for accuracy</i></p> <p>Level 3 (7-9 marks) Demonstrates good knowledge and understanding of population management strategies and success evidence for a named country.</p> <p>Level 2 (4-6 marks) Demonstrates sound knowledge and understanding of population management strategies and success evidence for a named country.</p> <p>Level 1 (1-3 marks) Demonstrates limited knowledge and understanding of a population management strategy for a named country</p>		<p>Bottom of level will have a basic description of the strategy and a basic idea about its success or ... Detail about the strategy(ies) with no valid success ideas</p> <p>Level 1 Valid named country needed for top of Level 1 Top of level will have a valid named country with a basic population management strategy idea.</p> <p>Bottom of level will have a named country with no further valid information or a basic idea about a population management strategy with no valid named country</p>
	Spelling, punctuation and grammar (SPaG) are assessed using the separate marking grid on page 15	SPaG 3	

Question	Answer	Marks	Guidance
3a) i)	1 mark for 33,000	1	1 x 1
3a) ii)	1 mark for Indonesia	1	1 x 1
3b)	1 mark for Nazca Plate	1	1 x 1
3c)	<p>Annotated diagram should include the following key ideas</p> <p>1 mark for a relevant type of plate boundary 1 mark for how plates interact 1 mark for explaining how magma is created 1 mark for the magma rising</p> <p>could be a subduction zone, constructive margin, or volcanic hot spot</p>	4	<p>4 x 1</p> <p>Maximum 2 marks if valid diagram without notes</p> <p>Maximum 2 marks for valid written explanation without valid diagram</p> <p>If candidate includes more than one type of plate margin, credit highest scoring response only</p>
3d)	<p>Features of a volcanic eruption which may kill people could include:</p> <p>lava✓ lava bombs✓ ash/smoke✓ pyroclastic flow✓ intense heat✓ volcanic gases✓ mudflows/lahars✓</p>	2	<p>2 x 1</p> <p>Two different valid features needed</p> <p>No credit for magma</p> <p>No credit for development/detail for one valid feature</p> <p>No credit for secondary effects of an eruption, such as starvation due to crops destroyed</p>

Question	Answer	Marks	Guidance
3e)	<p>Methods used to predict volcanic eruptions could include:</p> <p>Monitoring of volcanic gas emissions✓ Measuring ground deformation/bulge✓ Monitoring of small earthquakes✓ Monitoring of changes in ground temperature✓ Listening to sounds of rising magma✓ Monitoring of previous eruptions✓</p> <p>Abnormal/higher levels of any of the above are used to predict likelihood of a possible future eruption (dev)</p> <p>Reference to monitoring equipment/technology (dev)</p>	4	<p>2 x 2</p> <p>Award 3 marks for one well developed method.</p> <p>Two different methods needed for full marks Detail must be coherently linked to given method</p> <p>No credit for animal behaviour ideas</p> <p>No credit for action planning due to prediction such as evacuation plans</p>
3f)	<p>Benefits for people living in volcanic areas could include:</p> <p>Fertile soil from volcanic deposits✓ = increased yields ✓ Geothermal heat/energy✓ = cheaper energy ✓ Business/jobs linked to tourism✓ such as tour guide✓ Mining of valuable ✓ minerals associated with volcanoes✓ such as copper ✓ jobs in mining✓</p>	4	<p>4 x 1 for basic ideas or up to 3 marks for a well developed idea</p> <p>At least two benefits needed for full marks</p>
3g)	<p>Likely impacts of the tropical storm ✓ could include:</p> <p>flooding✓ death✓ injury✓ damage to / destruction of property ✓ homelessness ✓ disruption to transport✓ damage to infrastructure✓ impact on economic activities✓ damage to natural environment ✓</p>	4	<p>4 x 1 for basic ideas or up to 3 marks for a well developed idea</p> <p>Impact ideas must be relevant to Japan(MEDC)</p>

Question	Answer	Marks	Guidance
3(h)	<p>Case Study: an example of a climatic hazard event in an LEDC</p> <p>Indicative content <i>LEDC place can be a country, region, settlement</i></p> <p><i>accept valid tropical storm names such as Aila, Haiyan,,Nargis.</i></p> <p><i>Type = tropical storm or severe drought</i></p> <p><i>Accept a related climatic hazard such as flooding linked to a tropical storm. Accept monsoon.</i></p> <p><i>Hazard reduction methods and success evidence must be coherently linked to the named LEDC and hazard event given</i></p> <p><i>Hazard reduction methods could include monitoring of weather conditions, tracking tropical storm paths, evacuation plans, education/awareness training, storm proof buildings, storm shelters, killas</i></p> <p><i>Water conservation/supply/storage methods for drought</i></p> <p><i>Credit reference to emergency services/aid/relief after the hazard event</i></p> <p><i>Success evidence could focus on impact of the hazard on people and property, such as deaths, injuries, destruction of property, disruption to infrastructure and economic activities</i> <i>Could focus on how relief aid/operations reduce the</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 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 detail for Level 3</p> <p>Level 3 Valid named LEDC place needed for top of Level 3 Top of level will have detail about the methods used to reduce the impact of the hazard and detail about the success evidence of the methods, with some place specific detail (such as relevant place names or credible data).</p> <p>Detailed response lacking place specific detail = bottom of L3</p> <p>Level 2 Valid named LEDC place needed for top of Level 2 Top of level will have a valid methods idea with a valid idea about success evidence. Will have additional detail for either the methods used to reduce the impact of the hazard or success evidence for a method</p> <p>Bottom of level will have a basic method idea and a basic success evidence idea ... or detail about the methods with no valid success evidence</p>

Question	Answer	Marks	Guidance
	<p><i>secondary impacts of the hazard such as provision of food, clean water, shelter for hazard victims</i></p> <p><i>Correct evidence which focuses on the failure or partial success of hazard reduction methods is valid</i></p> <p><i>Credible place specific detail could include accurate number data for success evidence such as casualties, costs of damage and/or additional place names linked to chosen LEDC place or named hazard event such as Cyclone Nargis (Burma/Myanmar)</i></p> <p>Level 3 (7-9 marks) Demonstrates good knowledge and understanding of a climatic hazard event for a valid LEDC place, the methods used to reduce the impact of the hazard and the success of these methods</p> <p>Level 2 (4-6 marks) Demonstrates sound knowledge and understanding of a climatic hazard event for an LEDC place. With valid detail for either the methods used to reduce the impact of the hazard or the success of the methods</p> <p>Level 1 (1-3 marks) Demonstrates limited knowledge and understanding of a climatic hazard event in an LEDC place with a basic idea about a method used to reduce the impact of the hazard.</p>		<p>Level 1 Valid named place needed for top of Level 1</p> <p>Top of level will have a valid place with a valid methods idea</p> <p>Bottom of level will have a valid place with no further valid information or a basic methods idea with no valid place</p> <p>.</p> <p>Maximum Level 2 (5 marks) for a credible, named MEDC climatic hazard</p>
	Spelling, punctuation and grammar (SPaG) are assessed using the separate marking grid on page 15	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.

Maximum of 1 mark if candidate has only written one sentence.

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