International Advanced Level Geography

Unit 2 WGE02 – Section A
Geographical Investigations
Exemplar scripts with examiner commentaries

Issue 1. June 2017 examination series

Contents

Introduction

This guide has been created using student responses to the 2017 International A Level Unit 2 (WGEO/02). The answers and examiner commentaries in this guide can be used to show the standards in the IAL Geography assessment.

Unit 2, Geographical Investigations, takes a closer look at how physical and human issues influence lives and can be managed, at a local scale. There are two compulsory topics:

1) Topic 1: Crowded Coasts

2) Topic 2: Urban Problems, Planning and Regeneration.

The paper is divided into three distinct sections.

Both topics are covered in Section A of the paper which is data response and a mixture of short-answer and longer-answer questions (maximum of 8 marks).

Section B* is comprised of compulsory short-answer questions on research and the "familiar" (i.e. students own) fieldwork investigation. The maximum tariff question in this section is 12.

Section C* offers a choice of one fieldwork question, on either Crowded Coasts or Urban Problems, Planning and Regeneration. This is set in an "unfamiliar context", i.e. resources provided for the candidate to interpret and utilise. This typically has a mixture of 2-4 marks questions.

Questions 1 and 2 test a mixture of AO1 and AO2 skills, whereas question 3 (compulsory), 4 (option 1) and 5 (Option 2) are based largely on fieldwork which is examined as an AO3 skill. AOs are explained more fully in the specification (page 57) along with their breakdowns across units.

Paper 1 is worth 40% of the IAS total marks and 20% of the IAL total marks. The examination is 1 hour and 30 minutes and totals 60 marks.

Our command words are defined in our specification, please see page 95, and will remain the same for the lifetime of the specification. Questions will only ever use a single command word and command words are used consistently across question types and mark tariffs.

This document should be used alongside other IAL Geography teaching and learning materials available on the website here.

The May/June 2017 WGE02 question paper, mark scheme and examiner report is here.

*__Section B__ is in a different document

*__Section C__ is in a different document

Exemplar scripts Section A

Question 1aii

Explain one way constructive waves cause gently sloping beach profiles (2)

Question Number	Answer	Mark
1(a)(ii)	**AO1 (2 marks)** Award **1** mark for explaining a way and a further expansion mark, up to a maximum of 2 marks each: • Constructive waves have strong swash / weak backwash which (1) pushes / deposits sediments up the beach creating a gentle profile (1). • Constructive waves have a low wave height / long wave length / low energy / flat waves (1) so sediment is deposited as a berm at the top of the beach, but the rest of the beach is gently sloping (1). Credit other valid explanations. Do not credit steep (beach) slopes as this is incorrect in relation to constructive waves.	**2**

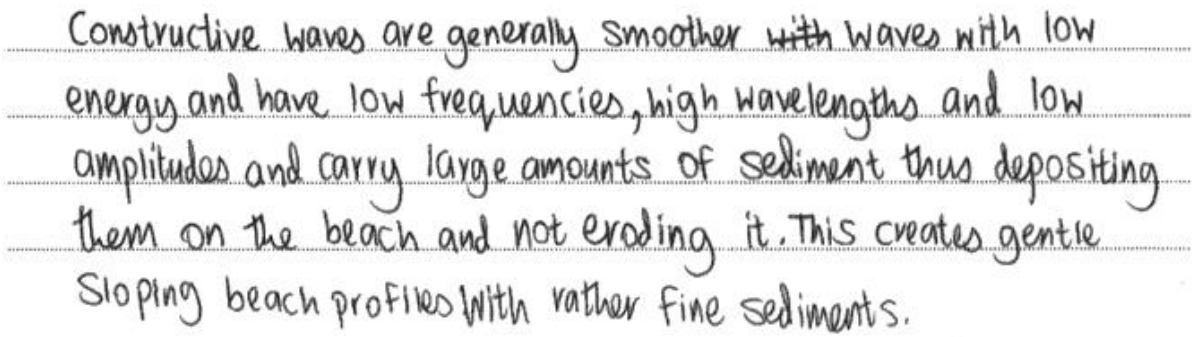
Script 1

Constructive waves are form from long gentle fetch which has a strong swash along with the the wave their # gently sloping beach profil's are formed.

Mark/level awarded: 1

Examiner commentary: Credit for the idea of strong swash (1), but no linked explanation of how that forms the gently sloping gradient.

Script 2



Mark/level awarded: 2

Examiner commentary: Low energy (1) so sediment is deposited (1). This answer has good technical vocabulary and is generally succinct.

Question 1b

Examine the importance of geology in the development of coastal landscapes. (8)

Examine	Assimilate, consider and review information (either supplied as a resource, or from existing knowledge and understanding of a topic). It may then require some form of decision or judgement to be made, drawing on any evidence provided and consideration of the topic.

Question Number	Indicative content
1b	**AO1 (6 marks)/AO2 (2 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO1** • Rock hardness, rock resistance, jointing, joint spacing,

	faulting can all influence the development of coastal landscapes and their landforms. • Alignment of rock structures at the coast can create concordant and discordant coastlines and associated landforms e.g. headlands and bays. • Landscapes include coastlines of erosion (cliffs, aches, stack) and depositional landforms, • Landscapes can include individual features, e.g. cliff morphology (wave cut notches etc). • Ability of geology to withstand erosion and / or sub-aerial processes of weathering: resistance to erosion of sedimentary versus igneous rock types. **AO2** • Geology plays an important role in landscapes, but other natural factors come into play such as fetch, direction which the coast in facing, dominant winds and type of wave energy, tidal range • Landscapes may be influenced by other factors such as coastal engineering which protect landscapes but could interfere with natural processes. • Tectonic processes, sea-level change and off-shore gradient are additional factors.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1–3	• Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate. (AO1) • Understanding addresses a narrow range of geographical ideas. (AO1) • Understanding of geographical ideas lacks detail. (AO1) • Applies knowledge and understanding to geographical information/ideas, with limited logical connections/relationships. (AO2)
Level 2	4-6	• Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Understanding addresses a range of geographical ideas. (AO1) • Understanding of geographical ideas is not fully detailed and/or developed. (AO1) • Applies knowledge and understanding to geographical information/ideas logically to find some relevant connections/relationships. (AO2)

Script 1

The geology of a coastline is referred to as the shape of the coastal landscape. Coastlines can either be concordant where the rock structure and landforms ~~is~~ are parallel to the coastline like in Lulworth cove in England. These concordant coastlines generally receive less erosion and have immense natural beauty. On the other hand, discordant coastlines are those which are not parallel; the landforms which form on these coastlines are usually headlands due to excess deposition or bays due to excess erosion. This can have benefits as these areas too will attract large amounts of tourists and remain sites of ~~scien~~ specific interest to various Stakeholders. However various other geological factors can affect a coastline; like the types of rocks: Hard rocks like Basalt are difficult to erode whereas soft rock like a limestone and chalk are generally much smoother and easier. Tectonic events like earthquakes or tsunamis could also change the geomorphology of a coast completely and somewhat damage the landscape. This was evident through the 2004 tsunami in the Indian ocean which destroyed many coastal landscapes.

(Total for Question 1 = 12 marks)

Mark/level awarded: 5

Examiner commentary: A level 2 response which provides locational details. Demonstrates geographical knowledge and understanding, which is mostly relevant, so it is strong on AO1. However, AO2 (the "examine" part of the question) is in comparison, weaker. They could have examined, for instance, the importance of hardness in determining the type and scale of a particular (located) feature. There is a little examination in the writing about geology, "basalt are difficult to erode, whereas….chalk is generally easier". It's a shame this comment was not then followed by a linking comment to landscape or features.

Some parts of the response are not relevant, i.e. the part about attracting tourists and interest to stakeholders.

Script 2

One aspect of geology that is crucial in development of coastal landscapes is the bedrock lithology. Depending on the angle of the strata of rock types, the cliffs on the coast may have a gentle gradient or be eroded vertically. Furthermore, depending on the resistance of the rock on the coast, erosion rates and sediment type will vary. Alternating bands of resistance create discordant coastlines and if the rock is less resistant there may be more sediment accumulated at the foot of the cliffs, giving rise to beaches and other depositional landforms. Also, the permeability of rocks will determine ~~the~~ how porous the rock is and therefore determine its susceptibility to weathering and erosion processes such as freeze thaw and hydraulic action. Whether there are joints and faults in the cliff face will add to its resistance and therefore erosion rates, landforms and cliff profile. However, there may be other factors influencing coastal landscapes such as the surrounding environment. High energy coasts that face the prevailing wind and experience ~~constructive~~ destructive waves with long fetches may be subjected to faster erosion rates. Whether the beach is swash aligned will determine the rates of longshore drift influencing the amount of depositional landforms.

(Total for Question 1 = 12 marks)

Mark/level awarded: 8

Examiner commentary: The response is strong on both AO1 and AO2 aspects. Despite there being no place specific details, the processes explanation and examination is strong enough to get this maximum marks, demonstrating accurate and relevant geographical knowledge and understanding throughout. An example of an evaluative statement is: "Whether there are joints and faults in the cliff face will add to its resistance, erosion rates, landforms and cliff profiles"

There is also good use of technical geographical terminology which supports the quality in this response.

Question 2ai

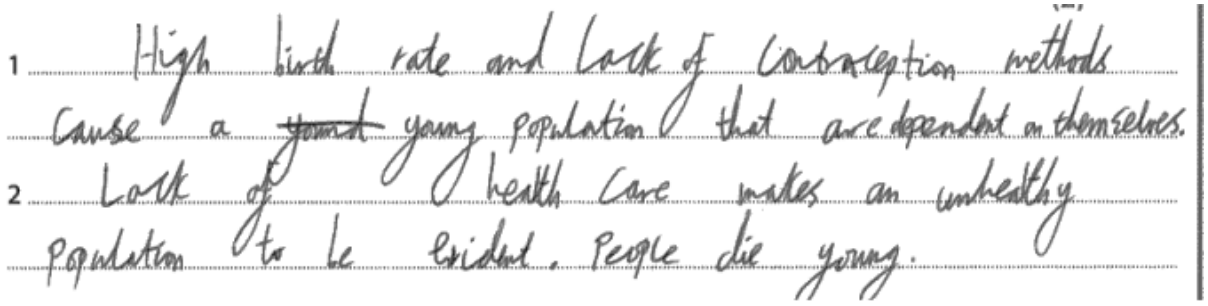
Using evidence, state two problems experienced by these people in Dhaka. (2)

Figure 2

People living in central Dhaka, a major city in Bangladesh

Question Number	Answer	Mark
2(a)(i)	**AO2 (2 marks)** Award **1** mark for each problem. • Litter / waste pollution along the railway (1) • Air pollution (haze on right side of photo) (1) • Over-crowding / very high-density population / buildings (1) • Low quality housing / slum housing in central Dhaka (1) • Death/injury from trains (1) • Lack of greenspace (1) • Informal employment / poverty (low wages, poor conditions) (1) Do not accept 'pollution' on its own. Accept other problems, but evidence **must be** from resource.	**2**

Script 1



Mark/level awarded: 0

Examiner commentary: No evidence directly from the photo and too generalised in what is written. The A02 mark for this question must be based around what is presented to the candidate in the resource.

Script 2

1 Lack of solid waste management - there is litter scattered around the area in the photo.

2 High levels of air pollution as there is some visible smoke in the photo and the background is hazy.

Mark/level awarded: 2

Examiner commentary: In contrast, this candidate clearly uses the information in the photograph ("litter scattered" and "visible smoke"). It is essential to reference where in the image the evidence is coming from, something that will be necessary in exam questions like this moving forward.

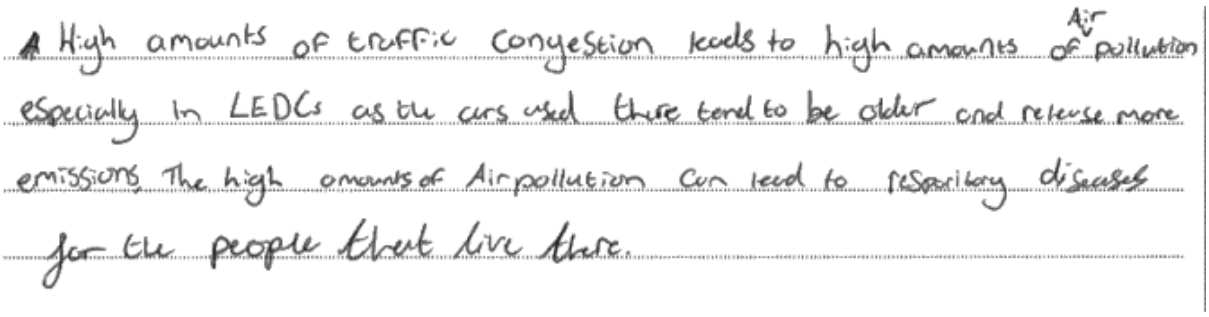
Question 2aii

Explain one way traffic congestion impacts on human wellbeing in cities such as Dhaka. **(2)**

Question Number	Answer	Mark
2(a)(ii)	**AO1 (2 marks)** Award **1** mark for explaining an impact and a further expansion mark, up to a maximum of 2 marks each: • Stress can lead to health issues (1) such as heart conditions / mental wellbeing problems (1) • High levels of particulate matter / carbon monoxide (1) can cause lung and health problems / bronchitis / pulmonary disease (1)	**2**

	• Traffic / transport delays lead to lost time (1) leading to lower productivity / less time with family / lower earnings (1) NB 'air pollution' 'pollution' are too vague to credit. Do not accept CO_2 as it is not a localised pollutant. Credit other valid ideas.	

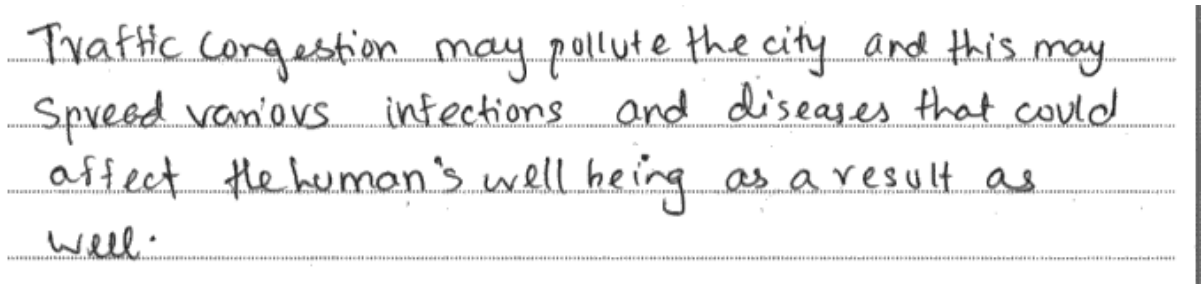
Script 1



Mark/level awarded: 2

Examiner commentary: Cars tend to be older and release more emissions (1) which leads to respiratory diseases for the people who live there (1). So, this response has both an explanation and extension for the 2 marks, as indicated in the mark scheme. It is important that students understand the exact demands of these type of questions.

Script 2



Mark/level awarded: 0

Examiner commentary: The response is too generalised to score any credit. The specification in 2.4.2 (Transport in cities) specifies detail in the key idea, linked to urban air pollution.

Question 2b

Assess how far urban regeneration can be environmentally and economically sustainable**. (8)**

Question Number	Indicative content
2(b)	**AO1 (6 marks)/AO2 (2 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include: **AO1** • Sustainability includes social, economic, political as well as environmental considerations, but there is much overlap between the ideas so often they cannot be considered as discrete • Regeneration generally means improvement through renewal and is different to reimaging, for instance • Urban regeneration schemes can be developed at a range of scales (small to very large) and have a range of different design briefs. • Smaller-scale regeneration projects focus on improving communities (housing, education and skills, employment opportunities) and increasing local representation. This has a stronger social, and therefore economic linkage. • Large-scale infrastructure projects (sporting events, expos, tourism development) are often the catalyst for regeneration, re-imaging and rebranding. These are also economically driven. **AO2** • Regeneration is often focused around economic improvements, rather than environmental since some schemes are privately funded and shareholders want a return. • Regeneration may not benefit all individuals and groups within and area, so the sustainability aspect can be met with mixed success.

		• Sustainability in the longer term might be difficult to judge as many schemes are relatively new, and it also depends on what metrics are used to qualify success. • There could be some assessment of the extent to which environmental or economic sustainability of achievable, within a balanced overall assessment.
Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1–3	• Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate. (AO1) • Understanding addresses a narrow range of geographical ideas. (AO1) • Understanding of geographical ideas lacks detail. (AO1) • Applies knowledge and understanding to geographical information/ideas, with limited logical connections/relationships. (AO2)
Level 2	4-6	• Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Understanding addresses a range of geographical ideas. (AO1) • Understanding of geographical ideas is not fully detailed and/or developed. (AO1) • Applies knowledge and understanding to geographical information/ideas logically to find some relevant connections/relationships. (AO2)
Level 3	7-8	• Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Understanding addresses a broad range of geographical ideas. (AO1) • Understanding of the geographical ideas is detailed and fully developed. (AO1) • Applies knowledge and understanding to geographical information/ideas logically to find fully relevant connections/relationships. (AO2)

Script 1

rebuilding and redeveloping (8)

Urban regeneration is refered to as ~~regeneration~~ and giving a new lease of life to an old run down area. Urban regeneration relates a lot of stakeholders such as muncipal councils, governments, local business and local people and ~~this~~ these projects can tend to be costly (*) as the regeneration of the London docks and Suburbs for the 2012 olympics suggested. Many legal permissions will have to be taken and this too will slow down the economical Sustainability of the process. However if urban regeneration is to be done in an economically sustainable manner, cost should be lowered and the least amount of resources should be used to produce the best result and outcome. In terms of environment sustainability, urban ~~re~~ planners and developers should avoid building on greenfield sites and as common evidence from eco-cities regeneration projects in Curitiba, Brazil and Tianjing, China have shown; this is much cheaper, more efficient and benefits the ecosystem at the same time. Wastages may be produced which harm the envivonment, but these can be reduced ~~but~~ In conclusion urban regeneration projects can be envivonmentally and economically sustainable if done in **(Total for Question 2 = 12 marks)**

the right ~~way~~ and sensible way. **TOTAL FOR SECTION A = 24 MARKS**

(*) and these projects can damage the livelihoods of people, local businesses and the environment who will all need to be compensated.

Mark/level awarded: 7

Examiner commentary: This response is strong on both AO1 and AO2 aspects. Explanation and assessment is strong enough to this into L3, demonstrating accurate and relevant geographical knowledge and understanding throughout. Examples of statements which assess include: "costs should be lowered", "projects have shown they can be cheaper and more efficient" etc. There is also good use of technical geographical terminology which supports the quality in this response. Its weakness is a lack specific detail across both environmental and economic sustainability, well linked to a location. This would have secured it the maximum marks.

Script 2

Urban regeneration can be environmentally sustainable in promoting use of renewable energy sources which maintain the local and global environment by reducing pollution. For example, the 2012 London Olympics used 70% renewables when redeveloping East London. Moreover, the scheme may improve the future environmental quality by introducing more green spaces (sometimes there's a quota), to improve the appearance of the area. However, inevitabely, regeneration involves construction of new buildings and infrastructure which may be environmentally unsustainable as it causes deforestation and may harm local ecosystems. moreover, regeneration often involves turning derelict brownfield sites into energy-consuming hubs which is not environmentally sustainable.

Urban regeneration can also bring a lot of money into an area by attracting business investment to promote long term economic development and improve the employment and income for people in the area. For example, the London Olympics 2012 created 14 billion pounds of profit which were partly spent on improving financial stability of workers in East London. However urban regeneration may also be economically unsustainable as if there is a large income gap between the old and new population, there may be widening income disparities, inequality and deprivation. moreover, the transformation of an area into a new 'hub' may cause unemployment. 11,000 jobs were lost in the regeneration of East London for the 2012 Olympics.

(Total for Question 2 = 12 marks)

TOTAL FOR SECTION A = 24 MARKS

Mark/level awarded: 8

Examiner commentary: Again, this response is strong on both AO1 and AO2 aspects. Compared to the previous example, this has more locational detail and assessment, which allowed Examiners to give maximum marks. Examples of assessment include: "may improve the future environmental quality", "inevitability, regeneration……may prove unsustainable", "may also be unsustainable….widening the gap between rich and poor…." It is a shame that this response only considers London, another example from somewhere else would have improved it, nevertheless there was sufficient evidence to give maximum marks.