

SECTION A – Tropical Environments

- 1 (a)** Explain how changes in the pathways and water stores in a drainage basin affect discharge in a river channel. [12]

Indicative Content

Focus on the question should be on the pathways and water stores in a drainage basin, which include:

- Pathways: overland flow, infiltration, percolation, throughflow and baseflow
- Water stores: interception and biological water storage, soil water storage, groundwater storage, channel storage

[River] discharge could be interpreted as an output. As such, students should be thinking about how the pathways and water stores would have an effect on river discharge.

A higher level response will focus on how the pathways and water stores changes and its resultant effect on discharge in a river channel. Students could see the link of discharge to hydrographs and draw connections in their answer to it.

Levels marked using H2 generic level descriptors for 12m

- 1 (b)** To what extent is an understanding of channel morphology important in explaining the processes that occur in river channels? [20]

Having established the pathways and water stores in the drainage basin and its effect on river discharge in (a), candidates would now discuss the relationship between channel morphology and the processes that occur in the channel.

Indicative Content:

Candidates would be required to have an understanding of what constitutes channel morphology. Furthermore, candidates will need to identify the processes that occur in river channels, which includes erosion, transportation and deposition. Candidates will then need to make the link as to how the fluvial processes shape channel morphology. However, there are other elements that also are important in explaining the processes that occur in the river channel.

A higher level response will see that there is no standard channel morphology and this is result of various combinations of the fluvial processes and the factors that shape them. Examples could be used to illustrate the interplay of these factors, processes and forms.

Possible links to other topics include effects of tropical deforestation (Topic

1.2), the actions of extractive industries (Topic 2.2) and the effects of climate change (Topic 3.1).

Levels marked using H2 generic level descriptors for 20m

- 2 (a)** With the aid of the rock cycle, explain the formation and characteristics of a named igneous, sedimentary and metamorphic rock respectively. [12]

Indicative Content:

The rock types that need to be considered in relation to the rock cycle would include igneous, sedimentary and metamorphic rocks.

A higher level response will focus on one named rock type as stipulated by the question. In understanding these rock type in detail, candidates will be able to provide a range of characteristics about it. Furthermore, better responses will recognise that these rock types are all linked as seen through the rock cycle.

Levels marked using H2 generic level descriptors for 12m

- 2 (b)** Discuss the view that karst landforms in the humid tropics are the result of present day processes. [20]

Having established the characteristics of rocks and how they are linked to one another in (a), attention is now turned to the landforms that arise from the different rock types and the processes involved in shaping their formation.

Indicative Content:

Candidates would be required to realise that karst landforms are a topography that are associated with limestone. The types of landforms that candidates may engage with in their answer include tower karst, cone karst and isolated karst. They should also be able to make links to the processes and factors that underlie the formation of karst landscapes in the humid tropics.

A higher level response will be able to interrogate the term 'present day' in greater details, and realise that not all processes occurring are still active in the present day. They could highlight the conditions that would set the context on whether these processes are happening in the present day or not.

Possible links to other topics include effects of tropical deforestation (Topic 1.2), the actions of extractive industries (Topic 2.2) and the effects of climate change (Topic 3.1).

Levels marked using H2 generic level descriptors for 20m

SECTION B – Development, Economy and Environment

- 3 (a)** Explain how the Multidimensional Poverty Index has helped in measuring and monitoring development across countries in the developing world. [12]

Indicative Content:

Multidimensional Poverty Index (MPI) is one of the tools that has been partially created by the United Nations as a means of measuring and monitoring development across the world.

A higher level response will be able to place emphasis on the context of how MPI has aided in the measuring and monitoring development across countries in the developing world. Stronger candidates will recognise that development affects multiple domains of life. Examples would improve the overall quality of the answer.

Levels marked using H2 generic level descriptors for 12m

- 3 (b)** Assess the usefulness of the dependency theory in understanding development across the world. [20]

Having considered about the state of development in countries of the developing world in (a), candidates would now evaluate the different ways of thinking about development as proposed by certain schools of thought and its usefulness to understanding development across the world more broadly.

Indicative Content:

Candidates should demonstrate an understanding of dependency theory. In particular, candidates will need to show how dependency theory does play out in the state of development in the world today. Candidates will also need to show the ways in which the dependency theory is not useful in understanding the state of development in the world today.

A higher level response will be able to show how other theories may be more useful in understanding development across the world. Another approach would be to recognise that the usefulness of the theories may be spatially and temporally specific.

Possible links to other topics include physical processes (Topic 1.1), and/or natural environment and resources (Topic 2.2) and aims of sustainable development (Theme 3.1).

Levels marked using H2 generic level descriptors for 20m

- 4 (a)** Explain the characteristics of extractive industries and their development in resource-rich countries. [12]

Indicative Content:

Some of the characteristics of extractive industries include it being location specific, location specific, capital and technology intensive, and a mixture of large private and state-owned firms. Candidates must demonstrate how extractive industries have developed in resource-rich countries.

A higher level response will be able to provide examples of resource-rich countries and how the extractive industry has taken root on their shores. Candidates may also base their knowledge of an example of a resource firm and the expansion of their business into resource-rich countries globally.

Levels marked using H2 generic level descriptors for 12m

- 4 (b)** “Extractive industries are a curse for resource-rich countries and their environment.”

How far do you agree with the statement? [20]

Having considered the nature of extractive industries and its development in (a), candidates would now apply this and assess the impact of the industry on resource-rich countries.

Indicative Content:

Responses should include a discussion of the various impacts that are experienced by resource-rich countries and their environment.

A higher level response will be able engage in a detailed discussion of impacts that are not solely centred on the environment. Evaluation should be able to weigh whether or not the industry has been a curse on the countries and their environment. Students may also see the connection of the question to the resource-curse thesis. However, they may also see that there are exceptions to this curse.

Possible links to other topics include reference to the management of tropical deforestation (Topic 1.2), influence of TNCs (Topic 2.1), responses to climate change that limits resource exploitation (Topic 3.1).

Levels marked using H2 generic level descriptors for 20m

SECTION C – Sustainable Development

- 5 (a)** Explain how Rio Earth Summit and Rio+20 have contributed to the pursuit of sustainable development for countries with fast growing populations. [12]

Indicative Content:

Responses should demonstrate an understanding of Rio de Janeiro 1992 UN Conference on Environment and Development (a.k.a. Rio Earth Summit) and the Rio de Janeiro 2012 UN Conference on Sustainable Development (a.k.a. Rio+20). These international conferences were guided by the goal to achieve sustainable development, as set forth by the 'our Common Future' report and its key tenets.

A higher level response were attained when candidates were able to contextualise their answers to countries with fast growing populations. They could also enhance their overall answers by providing examples of outcomes from the conferences that have taken root in these countries with fast growing populations and improved their sustainability.

Levels marked using H2 generic level descriptors for 12m

- 5 (b)** To what extent are the effects of climate change on sustainable development always negative? [20]

Having established the concept of sustainable development and its real-world applications in (a), candidates would now consider how climate change affects the world's goal to achieve sustainability.

Indicative Content:

Climate change is largely agreed by many scientists to be caused mainly by human activities. Reports by the Intergovernmental Panel on Climate Change (IPCC) warns that climate change could compromise our pursuit of sustainable development. This seems to suggest that climate change has negative impacts on our pursuit of sustainable development. As such, candidates would be required to showcase the possible effects of climate change on sustainable development.

A higher level response will recognise that climate changes has an impact of different aspects of our lives, covering the domains of politics, economics, society and environment. Candidates may also make links of how the negative impacts may be minimised with the responses to climate change that have been put in place in society's and governments' pursuit of sustainable development.

Possible links to other topics include Millenium Development Goals (Topic

2.1), considerations of sustainable development at the urban scale (Topic 3.2), influence of other actors such as TNCs (Topic 2.1), resource exploitation and its link to climate change (Topic 3.1).

Levels marked using H2 generic level descriptors for 20m

- 6 (a)** With reference to **one** city that you have studied, explain the factors affecting its liveability. [12]

Indicative Content:

Responses should be able to highlight a range of factors that affect the liveability of a particular city that they have chosen to engage with in this answer.

A higher level response will highlight a broad range of factors that affect urban liveability that could be political, socio-economic and environmental in nature. They may also make use of their understanding of the measures of liveability to enhance their answers.

Levels marked using H2 generic level descriptors for 12m

- 6 (b)** "It is easy to create a city but difficult to create a liveable one."

To what extent are liveability issues in cities hard to manage? [20]

Having established the factors that affect urban liveability in (a), candidates would now consider the challenges and solutions used to create liveable cities and their overall effectiveness.

Indicative Content:

Responses should consider various aspects of urban liveability. These include urban reimagining and how it is used to raise the quality of urban living space, addressing the needs of different social groups in the city, and responding to environmental hazards in cities such as pluvial floods. Each of these aspects of urban liveability have strategies that may be used to improve the overall liveability of cities, but with various levels of success.

A higher level response could apply a set of criteria or criterion to evaluate these different strategies. Another approach could be to consider what had been achieved in spite of the challenges specific to the city mentioned.

Possible links to other topics include quality of flood management strategies (Topic 1.2), addressing the Millenium Development Goals (Topic 2.1), the concept of sustainable development (Topic 3.1).

Levels marked using H2 generic level descriptors for 20m