

INNOVA JUNIOR COLLEGE

JC2 PRELIMINARY EXAMINATIONS

in preparation for General Certificate of Education Advanced Level

Higher 2

GEOGRAPHY

9751/01

Paper 1 Structured Essay Questions

27th August 2018

3 hours

Additional Materials: Answer Paper
 World outline map

READ THESE INSTRUCTIONS FIRST

Write your name and class on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use a HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.

Answer **three** questions. **One** from each section.

You should make reference to appropriate examples studied in the field or the classroom, even where such examples are not specifically requested by the question.

Diagrams and sketch maps should be drawn whenever they serve to illustrate an answer.

The world outline map may be annotated and handed in with relevant answers.
You are reminded of the need for good English and clear presentation in your answers.

At the end of the examination, fasten each section with a separate cover page and hand in.

The number of marks is given in brackets [] at the end of each question or part question.

This document consists of **3** printed pages and **1** blank page.



Innova Junior College

[Turn over

ANSWER SCHEME (PRELIM EXAMINATIONS, 2018)

Section A – Tropical Environments

Answer **one** question from this section.

- 1 (a) With the aid of well-labelled diagrams, account for the variation in channel morphology in the tropics.

[12]

Suggested Answer

- To define Channel Morphology (The dimension (width, depth), shape and pattern (sinuous, meandering, straight) of a stream channel.)
- It is different in the Humid and Arid Tropics – Due to Climate (Temperature and Rainfall), Geology of the Soil/Land, Vegetation
- Students can use either Bradshaw or Schumm to explain the morphology of channels/ivers in the arid and humid regions. (Though the theories explain about movement from the upper to the lower courses, the factors like width, depth, gradient, velocity, discharge are to be considered for this answer)

Arid	Humid
Climate (High fluctuating or large diurnal range in the year with low precipitations eg: BWh and BSh – lesser than 500mm of rain per year)	Climate (Due to the location around equator temperatures do not fluctuate much, high precipitation but can have distinct precipitation/dry season eg: Af, Am and Aw)
Inputs are lower for the arid regions compared to the humid regions and this input affects the channel	
For the Channel Morph in the arid region – ephemeral streams and tributaries (not permanent due to the high temperatures promoting evaporation – water tends to flow outwards (widely) thus higher surface area so the evaporation rates are higher. Lower discharges in the channel, channels can be shallower due to the lower discharges so the vertical and lateral erosion rates are much lower	In the humid region there is perennial tributaries, higher rainfall contributes to higher discharges and channels can be deeper due to vertical erosion. At the lower courses there will be more lateral erosion due to erosion of the banks. Channels are deeper due to higher discharges
The velocity of channel in the arid region will usually be lower due to the lower discharges – there will be higher friction thus reducing the speed at which the discharge flow. However, during periods of flash floods the velocity will increase due to high amounts of rainfall. This is also due to the fact that the land or soil is baked, and does not allow for infiltration to occur so the overland flow is Horton and there will be high surface flow moving into the channels. In addition to that the vegetation is also low in the arid regions thus allow for overland flow to move quickly into the rivers.	Velocity will be high – high rainfall and discharges – more laminar flow rather than turbulent flows. Soil is also very porous and there is usually luxuriant vegetation so infiltration and interception rates and levels are high.

- (b)** "Discharge is the most important factor influencing channel patterns in the tropics." Discuss. [20]

It is an important factor eg: Braided Channels – fluctuating discharge and for the Meanders – Perennial. But other factors also – Load type and composition and also other pre-requisites eg: Leopold Langbein

Students should be able to give evidence on how discharge makes a difference. There must be good explanation on how the type of discharge in the arid region (fluctuating discharge) and A_m/A_w (distinct dry periods) brings about the formation of braided channel – So high discharge high erosion, transportation and low discharge high deposition. Diagrams must be drawn to show how the change in the discharge brings about the formation of features such as braid bars, submerging braid bars, flanking channels etc

For the meandering channels – explain high discharges in the humid regions eg: Af so meandering – formation of cliffs and SOS. Explain the fluvial processes that form the features, use diagrams to enhance the answer.

But there are other factors which are as important eg: Load type – how load types is different for meandering, higher percentages of clay while for braided there is a higher percentage of coarse load to form the more stabilized bars.

Leopold and langbein – pools and riffles for meanders are important.

Diagrams are essential for this question.

- 2 (a) Using relevant diagrams, explain how wind erosion affects landforms in the hot and arid tropics. [12]

What is wind erosion – Aeolian processes of abrasion must be explained well and also the movement of the sand – saltation, suspension, creep etc. Erosion is different from weathering. Erosion must be clearly defined.

Draw diagram/s – Yardang, Loess, Dunes – any 2 to be explained.

Diagrams needed (Arid)

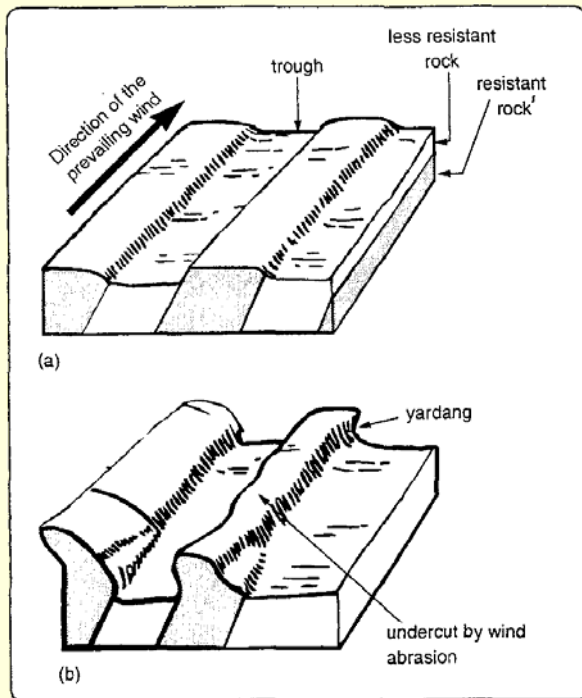


Fig. 8.25: Formation of yardang

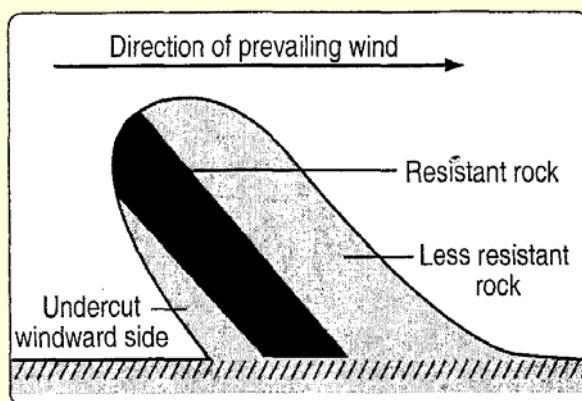


Fig. 8.26: A cross section of a yardang

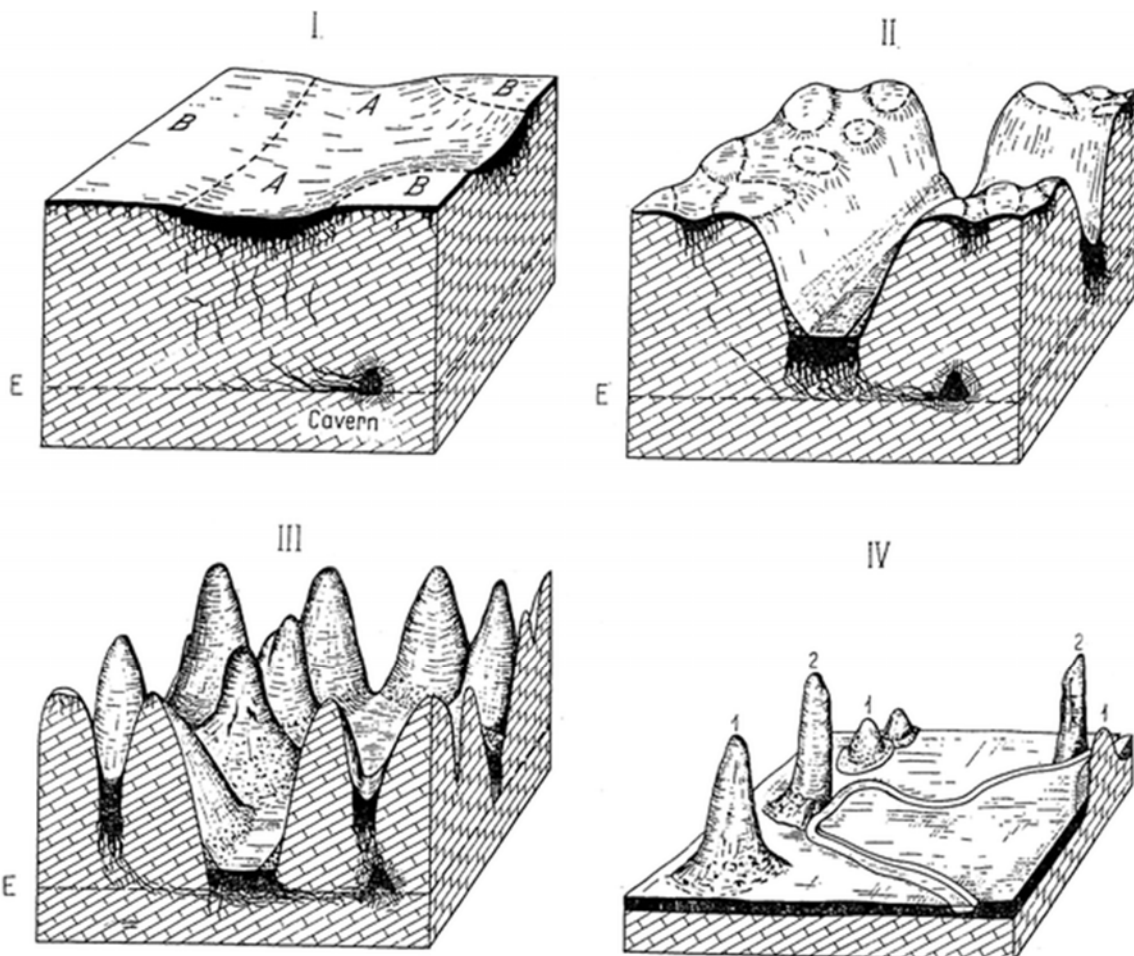
As for the Arid regions – low rainfall and fluctuating temperature brings about weathering processes that carve out various features example – thermal fracture, salt weathering. Water is important – Lut in Iran (Yardangs – undercutting by water)

- (b) Assess the role played by climate in affecting the formation of landscapes in the humid tropics. [20]

Climate is important – rainfall amounts and temperature in the humid regions – Karst, Van't Hoff to be quoted. Show difference between the Af, Am and Aw. Show the difference in Rainfall and Temperatures. Explain the rate/type of weathering due to variation in climatic factors

But other factors are important – Geology (type of minerals) eg: Granite – cavernous due to salt and also limestone – carbonation process. Show that even if Geology is the same for limestone, the fact that climate variations will either exacerbate or slow down the process of disintegration/breakdown of limestone. The rate of breakdown will vary

Vegetation – how the density of vegetation is affected by climate. Sparse and Dense vegetation.



Section B – Development, Economy and Environment

Answer **one** question from this section

3 (a) Account for the emergence of the New International Division of Labour (NIDL). [12]

- New International Division of Labour : NIDL is the **spatial separation** of tasks and functions (for instance headquarters, R&D and branch plants) which may previously have been done on the same site or within one country.
 - **global scale**, based on the law of **comparative advantage**.
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1. Technological Advancement
 2. Change in Spatial Organisation of Relationships in Production
 3. Rise and Growing Importance of Transnational Companies (TNCs)
 4. Proliferation of supranational bodies encouraging trade liberalisation (Lecture 26)
 5. State/Government Strategies: Economic zones set up by governments to attract Foreign Direct Investment (FDI)

- (b) “Besides being a prime cause of poor economic growth, poor governance breeds corruption, which cripples investment, wastes resources, and diminishes confidence.” (Ahmed Zewail)

[20]

To what extent do you agree that a country’s development is largely in the hands of the state?

Good to go with the focus of the question about states being important. Trade Policies, Investment Policies and examples of countries which have improved due to such clear policies. Eg: Singapore or South Korea

But it is important to explain about countries not being able to develop eg: Nigeria, Myanmar etc,

Then in these circumstances the command and control is taken over by the TNCs- So this is where the profit mindedness of TNCs will be explained in relation to the views and objectives of a state. The exploitation of TNCs, repatriation of profits etc to be explained.

SOs also play a role in development – IMF and Argentina or WB giving out loans etc eg: Uganda. But conditions attached. Policies set are not suitable eg: PESO was capped at US\$

- 4 (a) Explain the impact of privatisation of water resources in lower income countries. [12]

What is privatization of water?

The pros and cons of privatizing water

Who has privatized water (Material from Lecture 34)

Why Privatised

1. The appeal to the greater efficiency of private companies
2. The accusation of government failure in resource provision as a result of underinvestment
3. Inefficient management and unresponsiveness to the needs of the poor
4. The argument that the present water supply 'crisis' can only be resolved by private companies
5. Improvement, development and expansion of infrastructure, increasing efficiency of water supply and distribution, development of technical expertise, securing funds to finance investments
6. Water should not be considered a public good because it could create even further inefficiencies in how water is distributed. People currently waste and take for granted water supplies. It exacerbated the drought situation in California. If water is considered a public good, it could mean less efficient distribution of water based on regional need and resources.
7. It cannot be denied that water is essential to every aspect of human life but the provision of it is costly. Water needs to be treated before it is fit for human consumption and it is distributed to individuals using costly infrastructure. These come at a cost. As such, it is rather unfair for people to want to benefit from the provision of clean and safe water but are unwilling to pay for it.

- (b) “As I travel around the world, people think the only place where there is potential conflict over water is the Middle East, but they are completely wrong. We have the problem all over the world.” (Kofi Anan).

To what extent do you agree that water conflicts are not only experienced by many countries but are becoming more difficult to solve. [20]

Students must answer if conflicts are becoming more difficult to solve – Why? Lack of water, TNCs exploitation, Weather issues, Droughts, Cyclones, Water is polluted, Not cleaning it, increasing population. In ability to compromise due to all the above demands within a country so transboundary rivers face issues.

All the above to be explained in relation to case studies.

Section C – Sustainable Development

Answer **one** question from this section

- 5 (a) Explain the effects of climate change on sustainable development of countries at lower levels of development. [12]

Indicative content

Candidates should make reference to the effects of climate change on the economy, society and environment. Examples should be used to illustrate the effect in countries of low levels of development, especially Small Island Developing States (SIDS). There must be links made to how these effects can affect sustainable development of countries.

A higher level response should elaborate clearly on both the negative and possible positive effects of climate change in the various dimensions. Candidates would have shown how the effects of climate change can worsen over time, and bring in issues pertaining to vulnerability of certain groups of people and make links to sustainable development.

Levels marked using H1 generic level descriptors for 9m SEQ sub-part (a)

- (b) Assess the effectiveness of mitigation and adaptation strategies in combating the negative effects of climate change. [20]

Indicative content

Responses should elaborate on the various mitigation and adaptation strategies and discuss its effectiveness in adapting to the impact of climate change. The strategies discussed should be at varying scales (i.e. global scale, national scale, individual scale) and there should be clear criterion on the assessment of the effectiveness of these strategies (i.e. whether it reduces GHG emissions, whether it reduces the impact of effects as a result of sea level rise). There should be mention of specific examples and empirical evidence to support the assessment.

A higher level response an understanding that a variety of strategies need to be employed by countries in order to manage the impact of climate change. There is an understanding of scale: that climate change is a global problem that require global solutions, but at the same time also require a change at the national and individual level. There is an appreciation of climate change being a problem that needs a long period of time to resolve, and that implementation of effective strategies can be hampered by economic and political factors.

Possible links to other topics include tropical climates (Topic 1.1), flooding (Topic 1.2), development, structure of the economy and role of the state (Topic 2.1).

Levels maked using H2 generic level descriptors for 20m SEQ sub-part (b)

- 6 (a)** Explain why urban traffic congestion occurs in countries at low levels of development. [12]
 High population
 Crowded
 Urban planning is weak (strong center)
 Lack of distribution of activities to the outskirts of city
 Rural to urban migration is high
- (b)** To what extent have strategies to ease traffic congestion in cities been effective? [20]
 ERP/COE
 Private car owning is expensive (Singapore n London – Place)
 Better/Efficient/Affordable Public transport
 Pple choose to travel (Singapore Before with MRT and Today with problems – Time)
 (Curitiba Vs Rio – Difference in size of city affects scale of success)
 Urban Planning
 Weak centre and distribution to the rest of the region. (Working on the Environment)

