Year 8 Summer Mock Mark Scheme 2025

Section A: Are there challenges to development

Q1. **Development is a measure of how advanced a country is socially, economically or technologically.**
Indicators of Development are used to measure quality of life in a country.

Match up the indicator of development with the correct definition, one has been completed for you. [2]

Death rate **Life expectancy** **Literacy rate**

Life expectancy	Average number of years a person can expect to live.
Death rate	Number of deaths per 1000 population per year.
Literacy rate	% of population who can read and write.

Q2.

Country	Calorie (Food) Intake (per day)	Number of people per doctor
Country X	3300	325
Country Y	1700	50 000

i) Study the table above, which country, X or Y, is likely to be the most developed? [1]

Country X

ii) Explain your answer to part **i)** using information from the table. [2]

X1 point (from table) x1 for development.

e.g. Country X people are eating more food a day, this means they have more money and a higher wage than country Y.

Country X have less people per doctor so more doctors available. It costs money to train doctors, so the country provides higher education to more people.

Q3. **Figure 1:** Hoover Dam, Nevada Desert, 30 miles from Las Vegas, USA.

Explain either a physical or human factor that can be a challenge to a location's development. [2]

e.g. A physical factor that can be a challenge to development is the climate. If it is a desert with high temperatures and little rainfall it could lead to a drought.

x1 point,
x1 for development of that point.

Human: Population growth = over abstraction of water from Lake Mead
Physical: Climate = very little rainfall and warm temperatures / drought

A human factor that can be a challenge to development is a growing population. This could lead to an increase demand for water and the water level in the lake could fall due to over abstraction.

4. Outline one way Curitiba is an example of a sustainable city (2 marks)

x1 point,

x1 for development of that point.

- Public transport
- Green spaces and parks
- Green exchange

e.g. the city provides excellent public transport, a bus arrives every 60 seconds so people do not need to use their own cars this leads to less traffic and air pollution.

e.g. the city provides excellent public transport, a bus arrives every 60 seconds so people can get to their destination quicker and no time is wasted making them happier.

Take 10	CURITIBA: SUSTAINABLE CITY
Location: Southeast Brazil, South America.  Between the Equator and Tropic of Capricorn. Nearby ocean is the Atlantic Ocean.	**GDP per capita:** $14,550
Population: 3.8 million	99% of residents said they are happy with their city.
80% of travellers use public transport Buses arrive every 60 seconds. Central bus lane – not cars. Bus companies paid per km not per passenger.	**Coloured bus system** rather than a tube system as cheaper to run. Triple section bendy buses. Bus fare is the same wherever you go. No one lives more than 400 meters from a bus stop. Travel time cut by 1/3
Green spaces and parks beside rivers to act as flood plains when the river Iguazu floods.	Lowest rates of **pollution**.
Urban growth restricted along key transport routes.	**Green exchange:** urban poor bring their waste to the neighbourhood centres and can exchange their waste for bus tickets and food = keeps area clean as the waste trucks cannot reach them easily.

Q5. Which statement completes the following sentence? [1]
A mega city is a city with at least……
Shade one circle only.

- A. 500 000 people
- B. 1 million people
- C. 5 million people
- D. 10 million people

6. Explain the most significant challenge Jakarta, mega city faces (2 marks)

x1 point,

x1 for development of that point.

- Informal settlement and infrastructure
- Flooding
- Air pollution

e.g. The most significant challenge Jakarta faces is air pollution. Jakarta is the largest city without a metro, having a lack of public transport increases air pollution, this leads to health problems. 60% of the population suffer from this.

7. Explain an advantage and disadvantage of the 3 Gorge Dam (4 marks)

Marks	Description
3-4	Clear explanation of one advantage and one disadvantage.
1-2	Unbalanced, just focused on either advantages or disadvantages. Partial explanation and more descriptive.

Advantages	Disadvantages
• 10% of the country's electricity comes from Hydroelectric power (HEP) from the dam • This is clean/green energy • Flooding reduced downstream due to the dam controlling flow of water • Irrigation for farming • Trade has stimulated economic development as bigger ships can go along the 4000km long river • It is a tourist attraction (engineering marvel)	• 1.3 million people have been displaced due to houses being flooded (13 cities) • Historical sites have been flooded and lost forever • Copper and zinc polluted the water • Wildlife habitats have been flooded that were below the water line. These have been lost forever • Cost £24 billion to build the dam • Yangtze river Dolphin is now extinct • Dams and reservoirs trap sediment which farmers need (and it reduces the capacity of the river to hold water) • Dams need marinating which costs money

e.g. An advantage of the dam is that it provides 10% of Chinas electricity by HEP. This leads to an increase in renewable energy resources therefore less contribute to climate change.

A disadvantage is that 1.3 million people were displaced due to flooding. This led to people leaving their homes and businesses therefore their lives were severely disrupted.

Section B: Why are our coasts collapsing?

1. (i) 3831
   (ii) b

Q2. Tick the correct box to show whether each of the following statements about destructive and constructive waves is **true** or **false**. [3]

	True	False
Destructive waves are more frequent than constructive waves.	✓	○
Destructive waves are steeper than constructive waves.	✓	○
Destructive waves have a stronger swash than backwash.	○	✓

Q3. The sea erodes the coast in a variety of ways.
Add the key term to the correct definition. One has been done for you. [3]

Definition	Key Term
The dissolving of some rocks by sea water	Solution
Sand and pebbles being thrown against the coast	Abrasion
The force of the water against the coast	Hydraulic Action
The colliding of rocks and fragments into each other	Attrition

Abrasion, Attrition, Solution, Hydraulic Action

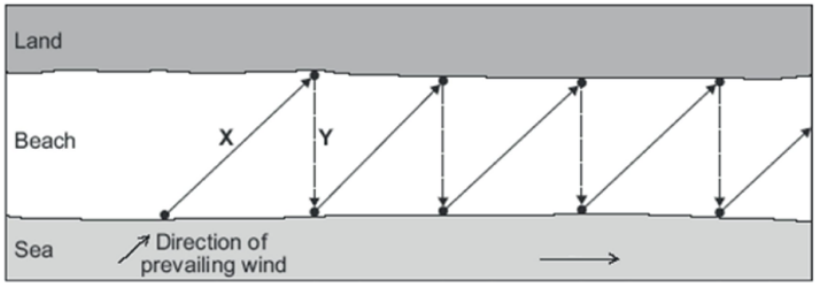
4. State one type of weathering that takes place in coastal areas. (1 mark)

Mechanical (freeze-thaw, water freezes), chemical (rainwater / sea water a weak acid), biological (animals / plants - roots) – does not need to the exact key words to gain the mark.

5. Name one landform that results from erosion. (1 mark)

Cave, arch, stack, stump, wave-cut platform, cliff, bay, headland

Q6. The figure below shows the process of longshore drift.

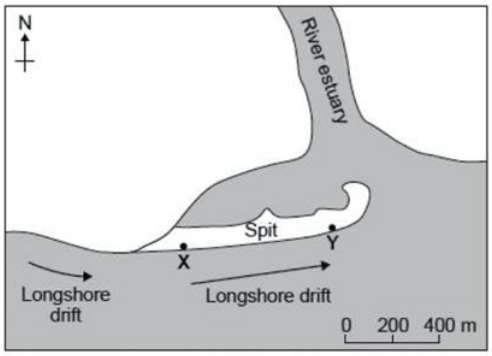


Write labels for **X** and **Y**. [2]

X Swash

y Backwash

Q7. Study **Figure 2** below, a diagram showing sediment size at two locations along a coastal spit.



Complete the table by calculating the mean (average) sediment size, in cm, for location **Y**. [1]

Location X Sediment size (cm)	Location Y Sediment size (cm)
12	9
10	4
9	2
15	3
8	2
13	6
Mean: 11.2	Mean: 4.3, 4.33, 4.333

9+4+2+3+2+6=26

26/6= 4.333

Accept to one, two or three decimal place.

8. (i) C Spit

(ii) Hard rock / Resistant rock / Made of chalk (limestone)

9. x: cave Y: arch Z: cliff

10. Explain the formation of a spit. (4 marks)

Marks	Description
3-4	Clear full sequence of how a spit forms. With at least one physical process. May use the photo but not required.
1-2	Sequence is not clear. No processes included.

Firstly, waves approach the beach at an angle due to the prevailing wind.

Secondly, longshore drift moves sand along the coast. At a bend in the coastline the sand is carried out to sea and deposited as the waves lose energy.

Eventually, local wind direction changes causes the spit to curve at the end.

Overtime, a salt march builds up behind the spit.

11. (i) What does the information about Orfordness Lighthouse suggest about coastal erosion? (1)

Erosion speeding up / getting worse.

Average 1 meter per year from 2005-2015 then 2 meters per year for 5 years after.

(ii). x1 point, x1 for development of that point. Can be a pro view or an anti view for coastal protection. But must be developed to get the second mark. Do not need to focus on this example to get full marks.

e.g. Pro view for coastal protection	**e.g. Anti view for coastal protection**
Coastal protection means that not just land is saved. The buildings can be used for tourist attractions which provide jobs. Some houses next to the sea would be protected and people would not lose their homes because if they were not protected they would not be able to get insurance.	Coastal protection can bee seen as ugly as the material is not local to the area, so puts tourist off visiting. Coastal protection is expensive and needs maintenance, the local area may not be able to afford it. Coastal protection in one place may cause greater erosion along the coast. Coastal protection can damage local wildlife and habitats.

12. Discuss how hard and soft engineering sea defences help protect the coastline from erosion (6)

Marks	**Description**
5-6	Detailed knowledge, organised, developed (BLT) with accurate understanding of how the sea defence protects the coastline. Covers advantages and disadvantages of soft and hard engineering. Can cover a range or one with lots of depth. Meaningful conclusion. May use supporting evidence and examples from their own knowledge. Good use of geographical terms and vocab
3-4	Clear knowledge, mostly organised, majority of explanations developed (BLT) with clear understanding of how the sea defence protects the coastline. Covers some advantages and/or disadvantages of a range of soft and/or hard engineering. Some use of geographical terms and vocabular
1-2	Basic throughout with limited knowledge and understanding Simple statements that are not developed, mostly descriptive. Little or no use of geographical terms and vocabulary

e.g. Hard engineering involved building and works against nature. An example is a sea wall which are used at several seaside towns such as Hornsea and Cleethorpes. A sea wall is a curved wall made on concrete which is built along the coastline. They reflect the energy of the waves back out to sea protecting against erosion such as hydraulic action and abrasion. They are effective for a long period of time but are an expensive option.

Soft engineering works with nature. An example is beach replenishment. This moves sand from the seabed and adding it to the beach. This makes the beach wider which will then reduce the wave energy and therefore reduce erosion. A negative though is that it needs to be repeated regularly as longshore drift moves the sediment down the coast which reduces the width of the beach.

In **conclusion** to protect the coast against coastal erosion, hard engineering is the best strategies for immediate protection as soft engineering take time to embed e.g. coastal realignment. However, a combination of hard and soft engineering needs to be used as the whole coastline cannot be protected to the same effect as hard engineering is very expensive.