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Level: CIE IGCSE Geography

Subject: Geography

Topic: IGCSE Geography

Type: Mark Scheme

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Geography CIE IGCSE

To be used for all exam preparation for 2025+

GEOGRAPHY

IGCSE

Key skills



Mark Scheme

Paper 1

Answer 1

Indicative content	General guidance
<ul style="list-style-type: none">Processes of erosion<ul style="list-style-type: none">AbrasionHydraulic actionStagesNames of landforms created	<p>The command word 'explain' requires you say how the landform has been made</p> <p>There are 5 marks and so you should outline the steps in the process</p> <p>It is often a good idea to include a diagram/series of diagrams to help explain the formation</p>

Model Answer	Commentary
<p>Waves erode the base of the cliff through erosion [1] Over time processes such as hydraulic action and abrasion create a wave-cut notch [1] The notch increases in size [1] There is nothing to support the cliff and so it collapses [1] a wave cut platform is left at the base of the former cliff [1]</p> <p><small>Copyright © 2024 Exam Papers Practice</small></p>	<p>Marks awarded 5/5</p> <p>This is one possible way to answer this question – your answer does not have to be exactly the same</p> <p>The answer outlines all the steps in the wave cut platform formation</p>

Answer 2

Examples include:

Note: Use of statistics for development will gain the final mark

Warm water/water/sea temperatures between 18–27 degrees C (accept figure within range); [1]

Shallow water/not more than 50–60 metres deep (or any figure within this range); [1]

Water free from sediment/clear/clean/not polluted; [1]

Plentiful supply of oxygen in water; [1]

Plentiful supply of plankton/nutrients; [1]

Gentle waves/currents/slow moving/calm water; [1]

Neutral/high pH/alkaline water; [1]

Salty water; [1]

Answer 3

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Examples include:

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Different levels of erosion has taken place; [1]

Different rock types outcrop along the coast/alternating hard and soft/discordant coast; [1]

Headlands likely to be harder rock/more resistant; [1]

Hard rock will not have eroded as rapidly; [1]

Bays likely to be softer/less resistant/unconsolidated rock; [1]

Soft rock eroded more rapidly; [1]

Hydraulic action/abrasion or explanation; [1]

Answer 4

Any five from examples such as:

- Rock type; [1]
- Consolidated or unconsolidated rock; [1]
- Hard/strong or soft/weak rock; [1]
- Presence of lines of weakness/joints/bedding planes; [1]
- Whether rocks will be eroded by corrosion or not; [1]
- Wave power/wave type/amount of swash and backwash; [1]
- Presence or absence of coastal defences; [1]
- Distance of fetch; [1]
- Stabilised by vegetation; [1]
- Width of/presence of beach or whether shallow or deep water; [1]
- Shelter; [1]
- Wind strength; [1]
- Wave refraction; [1]
- Impact of other processes e.g. sub-aerial processes etc. [1]

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Answer 5

(ii) Examples include:

- High salinity / very salty; [1]
- Between high and low water mark / large tidal range; [1]
- Water higher than 20°C in coldest month; [1]
- Seasonal temperature range lower than 5°C / small temperature range; [1]
- Gentle wave action / sheltered coastline / delta/estuary/bay; [1]
- Low shore gradient etc. [1]

Answer 6

b) (ii) Examples include

Onshore wind; [1] blows sand up to the top end of the beach; [1] where there are usually obstacles / plants / litter / rocks in the way; [1]

Sand is trapped by the obstacle; [1] that allows the dune to build up over time; [1]

Colonisation by vegetation begins [1] and the dune is stabilised by the plant roots [1]

Answer 7

(ii) Examples include:

Groynes; [1]

Prevent longshore drift/trap sediment; [1]

Beach nourishment/add sand to beach; [1]

(Concrete sea)wall/path/steps; [1]

Rock armour/rock at side of beach/at coastline; [1]

Reinforces/protects from wave attack/breaks waves; [1]

Planting vegetation; [1]

Stabilises cliff; [1]

- There will need to be development as to how each point manages erosion
 - E.g. The figure shows a set of groynes [1] along the beach, this reduces the effects of longshore drift [1] and traps sediment [1] behind the groyne, therefore, preventing the loss of beach material [1] which maintains the depth of the beach and reduces the velocity and force of destructive waves [1]

Answer 8



(i) Examples include:

Sheltered water/protected from prevailing winds; [1]

Wave refraction; [1]

Constructive waves; [1]

Swash stronger than backwash; [1]

Deposition occurs etc [1]

- Always use information from the resource in your answer to secure maximum marks
 - E.g. The figure shows that Golden Bay is sheltered from prevailing winds in the north by a sand spit

Answer 9

Examples include:

Hydraulic action or description; [1]

Abrasion/corrasion or description; [1]

Corrosion/solution or description; [1]

Erosion along lines of weakness/cracks forms caves; [1]

Back to back caves forms an arch/erode through headland; [1]

Collapse of roof of arch forms stack; [1]

Wearing down of stack forms a stump etc. [1]

Paper 2

Answer 1



Indicative content	General guidance
<ul style="list-style-type: none">• Size• What it is made of• Gradient	<p>The command word 'describe' requires you say what you can see</p> <p>There are 3 marks and so you should make three points</p>

Model Answer	Commentary
<p>The beach is made of sand [1] it is flat with a low gradient [1] and the beach is wide [1]</p>	<p>Marks awarded 3/3</p> <p>This is one possible way to answer this question – your answer does not have to be exactly the same</p> <p>The answer contains information regarding the gradient, material and size of the beach</p>

Answer 2

Indicative content	General guidance
<ul style="list-style-type: none">• Landforms• What it is made of• Gradient• Coastal Management	<p>The command word 'describe' requires you say what you can see in the photograph</p> <p>There are 3 marks and so you should make three points</p>

Model Answer	Commentary
<ul style="list-style-type: none">• There is a cliff/headland in the background [1]• There is a flat beach made of sand [1]• There are groynes on the right of the photo [1]	<p>Marks awarded 3/3</p> <p>This is one possible way to answer this question – your answer does not have to be exactly the same</p> <p>In the answer three different features of the coastal landscape shown are identified</p>



Answer 3

Indicative content	General guidance
<ul style="list-style-type: none">• Sea wall• Groynes• Rock armour	<p>The command word 'explain' requires you to say how coastal management works</p> <p>Two marks will be given for identifying two sea defences and two marks for the explanation of how they work</p> <p>You should comment on the sea defences shown in the photograph</p>

Model Answer	Commentary
<p>A sea wall [1] reduces erosion by absorbing the energy of a wave [1]</p> <p>Groynes [1] reduce longshore drift and this makes the beach wider so it can absorb more of the wave energy before it hits the land [1]</p>	<p>Marks awarded 4/4</p> <p>This is one possible way to answer this question – your answer does not have to be exactly the same</p> <p>The answer gives two sea defences and explains how they reduce erosion</p>

Answer 4



Indicative content	General guidance
<ul style="list-style-type: none">• Sequence of landforms• Crack• Cave• Arch• Stack• Stump• Types of erosion• Sub-aerial processes	<p>The command word 'explain' means that you need to give reasons for the changes that will occur.</p> <p>It is a good idea to include a diagram if it is suggested</p> <p>One mark will be awarded for each step of the process identified</p>

Model Answer	Commentary
<p>The headland is made of chalk which is a sedimentary rock. Waves will erode the cracks in the rock through hydraulic action, (and abrasion and solution) [1] The crack will get bigger and turn into a cave [1] Over time the caves will erode through the headland to form an arch [1] Weathering such as freeze thaw, will weaken the roof of the arch and eventually it will collapse [1] to form a stack [1]. The stack is eroded to form a stump [1]</p>	<p>Marks awarded 5/5</p> <p>This is one possible way to answer this question – your answer does not have to be exactly the same</p> <p>The answer clearly outlines each step in the formation of a stack</p> <p>Correct geographical terminology is used</p>

Answer 5

If candidates draw a diagram only credit new labels that match the examples below; some may copy the one from the insert for no credit.

Examples

Wind drive waves / wave move in direction of prevailing wind (1)

Waves come to the beach at an angle / oblique (1)

Swash carries material up the beach (1)

Backwash takes material back down the beach / at right angles / under gravity / perpendicular to beach (1)

Process is repeated with each wave (1)

Materials move along beach in zig-zag manner (1)

Materials move along beach in direction of prevailing wind (1)

Answer 6

Examples

Put tape measure out along transect line / to create a transect line (1)

Put one pole at edge of sea / back of beach / start of profile(1)

Put poles at equal distance OR put ranging poles at breaks of slope (1)

Ensure poles are vertical (1)

Measure with tape measure 5–10 m if using equal distance (1)

Measure with tape measure distance between ranging poles if using break of slope (1)

Rest poles on surface / equal depth into sand / equal height above sand (1)

Student holds clinometer next to top / at agreed height on ranging pole / at eye level (1)

Sight other ranging pole at top / same height (1)

Read angle / measure angle / record angle (1) **NOT** gradient

Move poles along beach / along profile to next site (1)

Repeat measurements until the profile is finished (1)

Answer 7

Ideas such as:

- fishing;
- work in port/harbour/trade/exports/imports/port industry;
- scenic beauty;
- fresh air/cooler temperatures;
- quiet/peaceful;
- work/income from tourist industry/hotels etc.
- agriculture or example etc.

4 @ 1 mark

Answer 8

4b) Changes such as:

- Spit has become longer/extended/increased from 7–10 to 15–20 km/by 5–13 km/gets closer to Kakinada;
- (Extended) to north/NW;
- Gap in spit has been filled/it is now continuous/joined to land;
- (End has) curved/has hooked/encircles bay;
- Gaps have opened near river mouth etc

3 @ 1 mark

4bii) Ideas such as:



- Longshore drift;
- Prevailing/main winds from south;
- Winds approach at angle;
- Swash/waves approach at angle/same angle as wind/from SE;
- Backwash at right angles;
- Zigzag movement;
- Beach materials move from south to north;
- Winds/waves from east/wave refraction recurves spit at end etc.

5 @ 1 mark or development



Paper 4

Answer 1

(i)

Indicative content	General guidance
Random [1] and Systematic [1]	The three techniques are random, systematic and stratified. Stratified had already been used and so random and systematic are the correct answers.

(ii)

Indicative content	General guidance
<ul style="list-style-type: none">• Coverage of area• Reliability• Bias	<p>The command word 'suggest' requires you to give sensible ideas, there is no need to explain the reasons</p> <p>You must give one advantage and one disadvantage of each sampling strategy</p>



Model Answer	Commentary
<p>One advantage of random sampling is that there is no bias [1] One disadvantage is that all sites could be clustered in one part of the coast [1]</p> <p>One disadvantage of systematic is that changes between the sites could be missed [1] One advantage is that it selects sites across the whole area [1]</p>	<p>Marks awarded 4/4</p> <p>This is one possible way to answer this question – your answer does not have to be exactly the same</p> <p>The answer gives one advantage and one disadvantage of each type of sampling</p>

Answer 2

Indicative content	General guidance
<ul style="list-style-type: none">• Constructive and destructive waves• How each piece of equipment will be used <p><small>Copyright © 2024 Exam Papers Practice</small></p>	<p>The command word 'describe' requires you to say how the equipment would be used</p> <p>It is important to describe the process of data collection step by step</p>

Model Answer	Commentary
<p>Constructive waves are less frequent than destructive waves [1] The students would put a float in the sea and count how many times the float moves forward with the swash [1] in a minute [1] using a stopwatch to time [1]</p>	<p>Marks awarded 4/4</p> <p>This is one possible way to answer this question – your answer does not have to be exactly the same</p> <p>One mark will be awarded for each of the steps taken to measure the waves</p>



Answer 3

Indicative content	General guidance
<ul style="list-style-type: none">• Sampling technique• Equipment needed• Description of method	<p>The command word 'suggest' requires you to give sensible ideas, there is no need to explain the reasons for your method</p> <p>Your answer needs to outline the process of measuring sediment step by step</p>

Model Answer	Commentary
<p>At each site, 10 pebbles would be selected at random [1] A ruler [1] would be used to measure the long axis [1] of the sediment and an average would be calculated [1]. This would be repeated at all sites [1]</p>	<p>Marks awarded 5/5</p> <p>This is one possible way to answer this question – your answer does not have to be exactly the same</p> <p>The answer outlines the process in stages</p>

Answer 4

Indicative content	General guidance
<ul style="list-style-type: none">• Map of geology• Coastal management plan• Photographs of sea defences• Comparison of previous fieldwork investigations	<p>The command word 'suggest' requires you to give one sensible ideas, and then you must say how the data would be used</p> <p>Qualitative data is descriptive rather than numerical</p>



Model Answer	Commentary
I would use a map that shows the geology along the coast [1] I would then compare rates of erosion with areas of hard rock and soft rock [1] to find out how much rock type affected rates of erosion [1]	Marks awarded 3/3 This is one possible way to answer this question – your answer does not have to be exactly the same

Answer 5

(i)

Hypothesis is **true / correct / supported / yes** – 1 mark reserve (✓HA)

All three sets of measurements decrease in size / get smaller towards sea (1)

Credit 1 MAX/RESERVE for data that shows decrease; three possibilities.

Must give all three measurements.

e.g. U1 = 84, M1 = 62, L1 = 44

e.g. U2 = 94, M2 = 58, L2 = 38

e.g. U3 = 102, M3 = 87, L3 = 36

Hypothesis is false / partly true = 0 (XHA)

If no hypothesis conclusion ^HA and credit evidence

(ii)

Examples

More powerful swash / strong waves / big waves / storm waves take all sizes of material up the beach (1)

Less powerful backwash/ water going back carries smaller material down the beach (1)

Erosion more rapid close to the sea where more frequent water movement (1)

Rock falls from cliff provide larger material at back of beach (1)



Answer 6

(i)

Examples

Wind sock / streamer / material held up / throw grass into the air / wet finger

// observe features blown by wind (1)

Use compass to see direction wind is blowing (1)

(ii)

If they draw a diagram only credit new labels that match the examples below; some may copy the one from the insert for no credit.

Examples

Wind drive waves / wave move in direction of prevailing wind (1)

Waves come to the beach at an angle / oblique (1)

Swash carries material up the beach (1)

Backwash takes material back down the beach / at right angles / under gravity / perpendicular to beach (1)

Process is repeated with each wave (1)

Materials move along beach in zig-zag manner (1)

Materials move along beach in direction of prevailing wind (1)

Answer 7

(h)

Examples

Put tape measure out along transect line / to create a transect line (1)

Put one pole at edge of sea / back of beach / start of profile (1)

Put poles at equal distance OR put ranging poles at breaks of slope (1)

Ensure poles are vertical (1)

Measure with tape measure 5–10 m if using equal distance (1)

Measure with tape measure distance between ranging poles if using break of slope (1)

Rest poles on surface / equal depth into sand / equal height above sand (1)

Student holds clinometer next to top / at agreed height on ranging pole / at eye level (1)

Sight other ranging pole at top / same height (1)

Read angle / measure angle / record angle (1) **NOT** gradient

Move poles along beach / along profile to next site (1)

Repeat measurements until the profile is finished (1)

Answer 8

(i)

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Examples

Equipment mark from photograph: Ranging pole / clinometer (1 mark maximum / reserve) for stating one of these.

Measuring the profile

Lay tape measure on beach to create a transect (1)

Poles put at break of slope / at equal distances apart (1)

Poles must be vertical (1)

Poles rest on surface / to equal depth in sand (1)

Angle is read from lower pole (nearer to sea) to upper pole (further from sea) (1)

Student holds clinometer at top / at marked height on ranging pole (1)

Allow clinometer to adjust to angle (1)

Read / measure angle / degrees (1)

Credit description even if it is not shown on Fig. 2.2



(ii)

Hypothesis is **true** – 1 mark reserve

Evidence must be based on data

Beach increases 2 – 2.2 m / just over 2 m in 19 m (1)

Wave-cut platform increases 0.9 / just less than 1 m in 24 m (1)

No credit for Hypothesis is incorrect / partially correct

If no hypothesis conclusion then credit evidence

Answer 9

(i)

Plotting above 3 results on Beach graph (58 and 85 mm)

(ii)

Hypothesis 2 is **correct (1)**

(iii)

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Examples

Water level decreases more quickly on beach (1)

Comparison of paired data, e.g. decreases by max amount of 120 mm on beach and only 12 mm max on wave-cut platform (1)

(iv)

<i>Groynes prevent longshore drift so sand and shingle build up a beach which water infiltrates through quickly.</i>	<i>The wave-cut platform made of clay is at the surface due to the removal of beach material, and water infiltrates slowly.</i>
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Answer 10

(i)

Completion of divided bar graph (rip rap = 13%, sea wall = 29%)

Dividing line = 1 mark, shading = 1 mark

(ii)

Completion of pie graph (residents = 11%, visitors = 19%)

Dividing line at 71% from left = 1 mark

Shading in correct order / style using key = 1 mark

(iii)

Looking for 4 conclusions from 5 questions. No credit for use of data.

Results show:

Most / majority of people are aware that the cliffs are being eroded (1)

Most / majority of people think the cliffs should be protected (1)

Most / majority of people are in favour of spending the money (1)

Groynes are the most popular protection method (1) NOT majority.

Most / majority of people think that the national government should pay for the protection work (1)