



**Cambridge Assessment International Education**  
Cambridge International General Certificate of Secondary Education

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**GEOGRAPHY**

**0460/43**

Paper 4 Alternative to Coursework

**October/November 2017**

MARK SCHEME

Maximum Mark: 60

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**Published**

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This document consists of **7** printed pages.



Question	Answer	Marks
1(a)	A ridge of sand or shingle attached to the land at one end	1
1(b)	Check tide times before setting off / do fieldwork at low tide Avoid slippery rocks / coral Measure waves frequency from safe position, not in sea / do not go too far / deep into sea / face the sea Wear suitable / waterproof clothes / shoes / gloves Check weather conditions / for stormy weather / avoid big waves / avoid strong current Work in pairs / groups / not alone / not out of sight of others / Take mobile / cell phone Sunblock / first aid kit 3 @ 1	3
1(c)(i)	Count number of waves breaking / going up beach / hitting object or person Use a stopwatch / clicker / timer Do a number of counts <b>and</b> calculate the average	3
1(c)(ii)	7.4	1
1(d)(i)	Waves approach the coastline at an angle	1
1(d)(ii)	Corks are blown by wind Corks float away from beach / out to sea <b>so</b> difficult to see where they finish / get lost / difficult to measure Only measures rate of longshore drift for the cork Only measures longshore drift on day of fieldwork	1
1(d)(iii)	Take more than one measurement <b>at each side of at the groyne</b> Take measurements at places <b>along the groyne</b> More students measure <b>and</b> calculate average Another student <b>checks</b> the measurement made / measures again	1
1(d)(iv)	Plot average distance = 14.1 m	1
1(d)(v)	Plot west side of groyne B = 1.45 m and correct shading	1

Question	Answer	Marks
1(d)(vi)	<p>Hypothesis 1 is <b>correct</b> / <b>true</b> – 1 mark reserve</p> <p>Corks / beach material / waves / longshore drift moved from east to west along coast            Beach is higher on east side of groynes / gap between top of groyne &amp; beach is less on east side / height of top of groyne above beach is less on east side / more sand or beach material on east side of groyne (credit opposite answers for west side of groyne)</p> <p>Credit data for 2 marks maximum e.g.            Wave frequency is less than 10 / average of 7.4 per minute            Corks moved between 13.7 and 14.5 m / average 14.1 m            At groyne A beach is 1.55 m below top of groyne on west side and 0.35 m below top on east side / 1.2 m lower on west side OR            At groyne B beach is 1.45 m below top of groyne on west side and 0.25 m below top on east side / 1.2 m lower on west side</p> <p>Credit figures for top of groyne above beach (same figures as above)</p> <p>No credit for Hypothesis is false / incorrect / partially correct            If no hypothesis conclusion in response credit evidence</p>	<b>4</b>
1(d)(vii)	<p>To protect the villages / houses / buildings / sand dunes            To protect the beach / stop beach being eroded / keep material on beach            To encourage tourism (by building up the beach)            To slow down / reduce / stop / prevent longshore drift / stop sediment accumulating at one end of beach            To stop the spit growing            To reduce the power of waves</p>	<b>2</b>
1(e)(i)	Complete tally and number counted (8)	<b>1</b>
1(e)(ii)	<p>Footpaths            go along / are along the <b>coast</b> / shore            go through / is in / either side / behind the <b>sand dunes</b>            go behind / next to the <b>beach</b>            go alongside the <b>car park / information board / toilets / café / recycling point</b>            go along is on the <b>spit</b> / by or around the <b>nature reserve</b></p> <p>Credit 1 mark maximum for 'from ... to ...' answer, e.g. from the café to the spit</p>	<b>2</b>

Question	Answer	Marks
1(e)(iii)	<p>Hypothesis is <b>true</b> – 1 mark reserve</p> <p>(Sustainable because) it attracts tourists / persuades tourists to visit / keeps visitors coming</p> <p>Protects environment / doesn't destroy the environment / prevents damage to vegetation / (bins) stops tourists from littering / (fence) guards nature reserve</p> <p>Credit example of encouraging features or management for 1 mark Features encouraging tourists to visit: cafe, campsite, car park, tourist information centre, nature reserve, <b>protected</b> beach, <b>protected</b> dunes Management: board-walk, fence, footpath, information board, litter bin, recycling point, toilets, groynes, nature reserve (no double credit)</p> <p>No credit for saying Hypothesis is false If no hypothesis conclusion in response credit evidence</p>	4
1(f)	<p>Put tape measure out along transect line / to create a transect line</p> <p>Measure distance between ranging poles</p> <p>Put poles at equal distance / 5–10 m / put ranging poles at breaks of slope</p> <p>Ensure poles are vertical</p> <p>Rest poles on surface / equal depth into sand</p> <p>Student holds clinometer next to top / at agreed height on ranging pole / at eye level</p> <p>Sight other ranging pole at top / same height</p> <p>Read angle / measure angle / record angle</p>	4

Question	Answer	Marks
2(a)(i)	<p>Systematic sampling Ask every tenth person/ go to every tenth house / regular pattern to identify people Avoid bias / fair test / quick method / reliable OR Random sampling Use random numbers to identify people / ask next person they meet Random numbers avoids bias / fair test / quick method / reliable OR Stratified / quota Ask appropriate age / gender balance / get representative sample of population (can be describe or explain) Avoids bias / fair test / reliable</p>	3
2(a)(ii)	<p>10% is enough for) a reliable / representative sample / fewer will not be reliable Enough responses to reach a conclusion about the hypotheses Larger sample will take too long / too much time (to complete / to do) Too many responses will be time-consuming <b>to</b> compute / process / total up / plot on graphs / produce too much data to analyse</p>	2
2(b)(i)	Shading 11–20 category in Gujarat	1
2(b)(ii)	Flow lines / <b>located</b> bar graphs	1
2(b)(iii)	<p>Hypothesis is <b>correct</b> / <b>true</b> – 1 mark reserve</p> <p>Most migrants come from Rajasthan OR More from Rajasthan / Madhya Pradesh / Uttar Pradesh / Haryana than another named state e.g. more from Madhya Pradesh than West Bengal</p> <p>Credit comparative data to 1 mark maximum e.g. 21–50 from Madhya Pradesh and 0 from Tamil Nadu More than 100 from Rajasthan and 1–10 from Bihar Credit ‘only’ with statistics as comparison statement, and credit statistics (so 2 marks) No credit if response says Hypothesis is false / partly true If no hypothesis conclusion in response credit evidence</p>	3
2(b)(iv)	<p>Less <b>distance</b> / closer to / less time to travel from neighbouring / nearby states <b>Cheaper</b> to travel from neighbouring / nearby states / cannot afford to travel long distance More <b>transport</b> links / easier access from neighbouring / nearby states Migrants have more <b>knowledge</b> / know people / have relatives / speak local language of Jaipur in neighbouring states There will be other large <b>cities</b> to attract migrants in other states</p> <p>Can credit ‘opposite’ ideas from distant states</p>	2
2(c)(i)	Completion of pie graph – shops = 25%, handpumps = 11%, wells = 10% 2 marks for dividing lines at 77 and 88, 1 mark for shading	3
2(c)(ii)	13%–15%	1

Question	Answer	Marks
2(c)(iii)	Plot bar 'Throw it on the road' = 13%	1
2(c)(iv)	<p>1 mark for each: water / lighting / rubbish</p> <p>No mains water supply Most / over half / main source of water from public taps Water comes from public sources / do not have their own water / piped water / do not have water in their house Water must be collected which takes time Water sources spread disease / contaminated water</p> <p>No electric lighting / no electricity Lighting is unreliable 45% / nearly half have no light of their own Main source of light is kerosene lamps</p> <p>No rubbish collection / waste management / rubbish disposal / no hygienic way of waste disposal Rubbish near to settlement Rubbish will attract vermin / spread disease Settlement is unclean / unhygienic Main method of rubbish disposal is to leave it next to shelter</p> <p>Credit 1 marks maximum for data (1% tolerance on stats) e.g. 52% depend on public taps 42–43% depend on kerosene lamps 42% dump rubbish on waste ground</p>	4
2(d)(i)	<p>Divided bar graph completion – construction worker = 24%, making &amp; selling items = 12%, blacksmith = 10%</p> <p>2 marks for plotting dividing lines, 1 mark for correct labelling of sections</p> <p>2 marks maximum if measured from 46% down</p>	3
2(d)(ii)	<p>Jobs will be poorly paid / low wages</p> <p>Informal / unskilled jobs / need no education / qualifications</p> <p>Unreliable wages</p> <p>Hard / manual labour / dirty job</p>	2

Question	Answer	Marks
2(e)	<p><b>Solution A</b>  Will improve housing / services / create living spaces / provide a house / provide a shelter  Create good standard of living / good quality of life / provide basic needs  People can afford decent house / services  Reduce disease / hygienic / clean environment / healthy environment / improve health  Safe – if developed e.g. from robbery</p> <p><b>Solution B</b>  Will force people out of their accommodation / force them to move away / nowhere to live  Will just transfer the squatter settlement residents elsewhere  May lead to conflict with authorities / violence  People end up where they started / end up back on pavement / not a permanent solution</p> <p>Answer does not need to be comparative  Accept answers for A which are a reversal of B, e.g.  Solution A will not force people to move out of their houses  Credit if the answer says 'it' rather than solution A</p>	<b>4</b>