



Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

GEOGRAPHY**0460/43**

Paper 4 Alternative to Coursework

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MARK SCHEME

Maximum Mark: 60

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 and 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 so 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 at each side of at the groyne Take measurements at places along the groyne More students measure and calculate average Another student checks 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)	Hypothesis 1 is correct / true – 1 mark reserve 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 & 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) 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 Credit figures for top of groyne above beach (same figures as above) No credit for Hypothesis is false / incorrect / partially correct If no hypothesis conclusion in response credit evidence	4
1(d)(vii)	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	2
1(e)(i)	Complete tally and number counted (8)	1
1(e)(ii)	Footpaths go along / are along the coast / shore go through / is in / either side / behind the sand dunes go behind / next to the beach go alongside the car park / information board / toilets / café / recycling point go along is on the spit / by or around the nature reserve Credit 1 mark maximum for 'from ... to ...' answer, e.g. from the café to the spit	2

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

Question	Answer	Marks
2(a)(i)	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	3
2(a)(ii)	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 to compute / process / total up / plot on graphs / produce too much data to analyse	2
2(b)(i)	Shading 11–20 category in Gujarat	1
2(b)(ii)	Flow lines / located bar graphs	1
2(b)(iii)	Hypothesis is correct / true – 1 mark reserve 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 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	3
2(b)(iv)	Less distance / closer to / less time to travel from neighbouring / nearby states Cheaper to travel from neighbouring / nearby states / cannot afford to travel long distance More transport links / easier access from neighbouring / nearby states Migrants have more knowledge / know people / have relatives / speak local language of Jaipur in neighbouring states There will be other large cities to attract migrants in other states Can credit 'opposite' ideas from distant states	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)	1 mark for each: water / lighting / rubbish 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 No electric lighting / no electricity Lighting is unreliable 45% / nearly half have no light of their own Main source of light is kerosene lamps 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 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	4
2(d)(i)	Divided bar graph completion – construction worker = 24%, making & selling items = 12%, blacksmith = 10% 2 marks for plotting dividing lines, 1 mark for correct labelling of sections 2 marks maximum if measured from 46% down	3
2(d)(ii)	Jobs will be poorly paid / low wages Informal / unskilled jobs / need no education / qualifications Unreliable wages Hard / manual labour / dirty job	2

Question	Answer	Marks
2(e)	Solution A 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 Solution 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 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	4