
GEOGRAPHY

2217/23

Paper 2 Investigation and Skills

October/November 2017

MARK SCHEME

Maximum Mark: 90

Published

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This document consists of **10** printed pages.

Section A

Question	Answer	Marks
1(a)	Bay – east coast Flat rock – east coast Headland – east coast River mouth – both Spit – neither	5
1(b)(i)	3	1
1(b)(ii)	185°–189°	1
1(b)(iii)	396879 / 397879	1
1(c)	High / hill / mountain Ridge Double peak Heights to 469 m Heights down to 180 m–200 m (within range) Spur Valley Steep slopes Rounded tops Convex / concave slope located Rivers drain north / east / south Radial drainage Tributaries [Reserve 1 for drainage]	6
1(d)	Dam / reservoir Building / isolated settlement <u>M</u> ain road / <u>A</u> road Other road / drive / track / byway Footpath / walking trail Coniferous wood / forestry / plantation Parking area Picnic site Cairn Footbridge Weir	6

Question	Answer	Marks
2(a)(i)	Moving from one country to another country	1
2(a)(ii)	Any relevant push factor	1
2(b)(i)	Correct completion of graph	1

Question	Answer	Marks
2(b)(ii)	UAE Saudi Arabia USA UK Germany Russia	1
2(c)	8 million Largest Larger 14%	4

Question	Answer	Marks
3(a)(i)	26 °C	1
3(a)(ii)	32 13 19 (Allow ECF)	3
3(b)(i)	Push the button / use a magnet Bring the index down / to current temperature	2
3(b)(ii)	So data can be compared / consistent So each set of data is for 24 hours So temperature passes through a maximum and a minimum in each period	1
3(c)	Records shade temperature Thermometer is protected Standard height / conditions / able to make comparisons / consistent	1

Question	Answer	Marks
4(a)(i)	Constructive	1
4(a)(ii)	Convergent	1
4(b)	Subduction	1
4(c)	Movement in different directions / at different speeds Sections of crust lock and release	1
4(d)	Plates converging Oceanic / denser / thinner plate subducts Increasing temperature and friction Descending plate melts Material is less dense Magma rises Vent at surface Repeated activity builds volcano	4

Question	Answer	Marks
5(a)(i)	Pastoral	1
5(a)(ii)	Meat / beef Dairy products / milk Leather / skin / hide	2
5(b)	Covering of grass reduces impact Roots of vegetation hold the soil together Flat / gentle slope encourages infiltration Line of trees blocks wind Hedge blocks wind 1 mark maximum for simple labels without explanation	3
5(c)	Any valid group with reasoned answer E.g. local traders Have more customers	2

Question	Answer	Marks
6(a)(i)	Game / animals / named animal / birds Landscape / scenery / woodlands / lakes / plains	2
6(a)(ii)	Drives Lodges / accommodation Bar / food / drink Guided walks Elephant / horse rides Boating History / culture / art	4
6(b)	Money / income allows for conservation Tourists learn about the animals / conservation Access is controlled	2

Section B

Question	Answer	Marks
7(a)	A ridge of sand or shingle attached to the land at one end	1
7(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
7(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
7(c)(ii)	7.4	1
7(d)(i)	Waves approach the coastline at an angle	1
7(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
7(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
7(d)(iv)	Plot average distance = 14.1 m	1
7(d)(v)	Plot west side of groyne B = 1.45 m and correct shading	1

Question	Answer	Marks
7(d)(vi)	<p>Hypothesis 1 is correct / true – 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 and 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>	4
7(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>	2
7(e)(i)	Complete tally and number counted (8)	1
7(e)(ii)	<p>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</p> <p>Credit 1 mark maximum for 'from ... to ...' answer, e.g. from the café to the spit</p>	2

Question	Answer	Marks
7(e)(iii)	<p>Hypothesis is true – 1 mark reserve</p> <p>(Sustainable because) it attracts tourists / persuades tourists to visit / keeps visitors coming</p> <p>Protects environment / does not destroy the environment / prevents damage to vegetation / (bins) stop tourists from littering / (fence) guards nature reserve</p> <p>Credit example of encouraging features or management for 1 mark Features encouraging tourists to visit: café, 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)</p> <p>No credit for saying hypothesis is false If no hypothesis conclusion in response credit evidence</p>	4
7(f)	<p>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</p>	4

Question	Answer	Marks
8(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
8(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 to compute / process / total up / plot on graphs / produce too much data to analyse</p>	2
8(b)(i)	Shading 11–20 category in Gujarat	1
8(b)(ii)	Flow lines / located bar graphs	1
8(b)(iii)	<p>Hypothesis is correct / true – 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
8(b)(iv)	<p>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</p> <p>Can credit 'opposite' ideas from distant states</p>	2
8(c)(i)	Completion of pie graph – shops = 25%, hand pumps = 11%, wells = 10% 2 marks for dividing lines at 77 and 88, 1 mark for shading	3
8(c)(ii)	13%–15%	1

Question	Answer	Marks
8(c)(iii)	Plot bar 'Throw it on the road' = 13%	1
8(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 houses 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 mark 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
8(d)(i)	<p>Divided bar graph completion: construction worker = 24%, making and 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
8(d)(ii)	<p>Jobs will be poorly paid / low wages Informal / unskilled jobs / need no education / qualifications Unreliable wages Hard / manual labour / dirty job</p>	2

Question	Answer	Marks
8(e)	<p>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</p> <p>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</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>	4