	Pa	age 1	Mark Scheme	nnn.igeta	aper
			IGCSE – June 2003	W.	01
				.10	
1	(a)	(i)	60/61 years,	C. A.	
•	(a)	(')	39/38 years.		30
			39/30 years.	O at 1 mark	,co.
				2 at 1 mark	3
		(ii)	X birth rate well above death rate,		
			Y as above but then reduction in growth,		
			increased death rate/declining birth rate,		
			Z birth rate above death rate, then decline/BR similar to	DR.	
				3 at 1 mark	[3]
				o at 1 mark	[O]
	/h\	/:\	tradition		
	(b)	(i)	tradition,		
			religious pressures,		
			zeal for son - inheritance,		
			ignorance of large sectors of the population on need to	reduce B.R/	
			low literacy rate/awareness,		
			difficulties of instituting family planning policies,		
			size of country/dispersed nature of population,		
			expense of introducing family planning policies,		
			lack of/unpopularity of abortion/sterilisation,		
			pressure in rural areas - need children to work on farms		
			large number of children to look after parents in old age,	1	
			high infant mortality - hence large families.		
				4 at 1 mark	[4]
		(ii)	prevent overpopulation,		
		(,	avoid increase in dependency ratio,		
			· · · · · · · · · · · · · · · · · · ·		
			lowering of living standards,		
			poverty,		
			shortages - water/land,		
			reduce risk of		
			greatly increased demand on resources,		
			high levels of unemployment,		
			famine/food shortages,		
			malnutrition,		
			decline of infrastructure - e.g. roads,		
			inadequate housing/squatters,		
			exhaustion of soil,		
			inadequate educational facilities,		
			lack of health facilities,		
			possible civil unrest		
				4 at 1 mark	[4]
		(iii)	better medical facilities,		
		(,	more food,		
			•		
			improved diets less malnutrition,		
			housing improvements,		
			improvements to water/sanitation,		
			more spending on older people,		
			education/awareness of need to look after the body/exe	rcise etc.	
				4 at 1 mark	[4]
				. at I main	۲.1
	(0)	(i)	5-9 years		[1]
	(c)	(i)	5-9 years		[1]
		(::)	demand a companion the art of the second	-4:	F43
		(ii)	depend economically on the 15-64 years/working popula	ation.	[1]

Pa	age 2		Mark Scheme	Syllabus	Paper
			IGCSE – June 2003	0460	01
	(iii)	lary sm 0-4 cre	pad based pyramid - progressive, ge percentage below 15 years, hall population over 65, all narrower than 5-9, hedit reference to the shape of the pyramid, credit for references to birth rate/death rate.	3 at 1 mark	<u>(</u> [3]
	(iv)	lov inc inc inc	rrowing/reduction in youngest age groups – vering of birth rate, crease in over 65s - crease in life expectancy/reduction of death rate, crease in 15-64 year olds - duction in young age groups.	3 at 1 mark	<u>(</u> [3]
0 ()	<i>(</i> 1)	0.5			
2 (a)	(i)	CE	BD or rural-urban fringe.		[1]
	(ii)	pla	nd too expensive in CBD, Inning control in rural-urban fringe/urban area not gro t this far yet.	wn	[1]
	(iii)	dis rov	perstore - 1, trict shopping centre - 2, v of shops - 5, all shops - 8/9.		[1]
	(iv)		e, here of influence/threshold differences, der of services - convenience/durable goods.	2 at 1 mark	<u>s</u> [2]
	(v)	lar ha ne hig	t-of-town/not surrounded by residential areas, ger, s area around store - parking, ar major road junction, ther order shop/needs large threshold/sphere of influence from for expansion.	ence, <u>3 at 1 mark</u>	<u>(</u> [3]
	(vi)	spa aw pos pos nes	ge area, acious layout/large car parking area, ray from congestion, ssibly room to expand, ssibly cheaper land, ar road junction - outer ring road and road from CBD, eximity to large residential area.	3 at 1 mark	<u>(</u> [3]
	(vii)		more main roads, d-iron/rectangular pattern.		[1]
	(viii)	old les	ler, s planning in area Z .		[1]

Page 3		Mark Scheme	Syllabus	Paper
		IGCSE – June 2003	0460	01
(b)		For each choice: description reason	1+1mark 2+2 marks	='
(c)	(i)	shortage of land in the CBD limited space, great demand for location in the CBD – shops/offices, centre of city – convergence of routes, large number of workers, rush hours. housing shortages large population, urbanisation/large numbers of migrants, building programmes cannot keep pace with demand. traffic congestion		
		increase in urban population, preference for private transport, commuting, rush hours.		
		For the chosen problem	2 at 1 mark	[2]
	(ii)	shortage of land in the CBD encourage activities to locate away from city centre, skyscrapers, reclamation, urban renewal. housing shortages		
		build more houses, develop new towns/satellite towns, encourage movement away from city.		
		traffic congestion encourage traffic away from city centres/by-pass roads promote public transport, new public transport developments – mass rapid transp stagger working hours, urban motorways/freeways, encourage out of town parking, charges for entry to city centre, roundabouts NOT traffic lights.	oort systems,	
		Credit reference to actual examples to illustrate MAX.	<u>mark</u> 4 at 1 mark	[4]
3 (a)	(i)	material carried by river – sand, stones, mud etc.		[1]
	(ii)	three of: suspension, solution, saltation, traction load.		
		u acuon icau.	3 at 1 mark	[3]

Page 4			Mark Scheme	Syllabus	Paper
			IGCSE – June 2003	0460	01
	(iii)	ins es	es of energy, sufficient water/small volume, pecially during dry season, shallowing of channel/bra ner/convex bank of meander,	iding,	
		de les be	er enters still water of lake/sea, crease in velocity, sening of gradient – low waterfall, er carries more load than it can transport.		[1]
(b)	(i)	str	aighten its course.		[1]
	(ii)	ор	ff at A , slip-off slope at B , posite at R ,		
		Syl	mmetrical channel at P .	4 at 1 mark	<u>(</u> [4]
	(iii)	mo inr	ter/concave bank – more volume, greater velocity, ore erosion – undercutting, bank collapse – steep slopner/convex bank – less volume, less velocity, position – slip-off slope.	oe.	
				2 at 1 mark	[2]
(c)	(i)	we	est/NW/WNW.		[1]
	(ii)	2 k	km.		[1]
	(iii)	wa lev hig rive de tur go de	ree of: Interfall – resistant rock/cap rock, Ivel topped, Iyh, Iyh, Iver splits over waterfall, Iver shallow above waterfall, Iyh, Iyh, Iyh, Iver shallow above waterfall, Iyh, Iyh, Iyh, Iyh, Iyh, Iyh, Iyh, Iyh		
		9		3 at 1 mark	[3]
	(iv)	roa tou em	erruption of river transport – waterfall, bblem of bridging the gorge, ad bridge carrying main road from settlement of Victor urism – hotels, aployment, ntributed to growth of settlement,	ria Falls,	
		hy	dro-electric power.	3 at 1 mark	[3]

<u></u>		·	<u> </u>	
(d)	(i)	resistant cap rock, underlying softer rock eroded, eddying/plunge pool, undercutting, by splashback.		
		by opidonibation.	3 at 1 mark	[3]
	(ii)	unsupported, collapse, retreat leaving gorge	2 at 1 mark	[2]
4 (a)	(i)	temperatures: high temperatures all year/every month 20° C - 30° C, low annual range 6° C, highest temperature - May 29° C.	2 at 1 mark	[2]
		rainfall: high annual rainfall, highest Dec. 270-280mm, lowest rainfall Feb, May and Sept. about 180 mm, no dry season.		
			2 at 1 mark	[2]
	(ii)	 A emergents/upper layer, B canopy layer, C lianas, D buttress roots/undergrowth/shrubs. 		
		ŭ	4 at 1 mark	[4]
	(iii)	lack of sunlight.		[1]
	(iv)	three of: tall trees compete for sunlight, little undergrowth – lack of sunlight, heavy rainfall/high temperatures – prolific growth, evergreen – no seasonal rhythm, drip tips/waxy leaves/allow water to flow off quickly, shallow roots – high rainfall – water in top layer of soil.		
		G , ,	3 at 1 mark	[3]
(b)	(i)	14%		[1]
	(ii)	timber, farming/cattle ranching, roads.	2 at 1 mark	[2]
	(iii)	no – marks for two reasons trees gone, empty fields, pasture overgrown, decline in cattle rearing, farming unprofitable.	2 at 1 mark	[2]

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	Page 6		Mark Scheme	Syllabus	Paper
			IGCSE – June 2003	0460	01
	(iv)	rive nu no no los lea hig los ani ma	creased run-off, ers – more volume – flooding trient cycle broken/interrupted, roots to absorb nutrients from soil, replacement of nutrients with leaf fall and decay, es of nutrients to soil, eching by heavy rainfall, gher rate of surface run-off with loss of nutrients, es of species, imals die – loss of habitats, ey become extinct, rning – contributes to global warming.	4 at 1 mark	₹ [4]
					, [.]
(c)		for wit pre tou con floor soi	 o. other natural environments acceptable as well as treest, h economic developments natural areas becoming leaserve the ecosystem, event loss of species – plant and animal, arist potential, artrol problems – adding, derosion, 	·	
		glo	bal warming etc.	4 at 1 mark	<u>c</u> [4]
5 (a)	(i)	A B	9/8%, 60%.	2 at 1 mark	<u>(</u> [2]
	(ii)	mo	more in tertiary, ore in secondary/manufacturing, os in primary.	3 at 1 mark	<u>c</u> [3]
	(iii)	Y (9 X (1 X (1 X (2	developed countries – Y developing, greater dependence upon agriculture, riculture in X more mechanised, developed manufacturing C19-C20, Y developing mamore developed economies – greater demand for sergreater amount of skill/educated/trained labour force, more capital for investments.	_	<u>(</u> [3]
(b)	(i)	inp	hicle constructed by adding components on an assen outs – what goes into assembly omponents and raw materials, labour etc.	nbly line, <u>2 at 1 mar</u> k	<u>c</u> [2]
				-	

	(ii)	A cheaper production/skilled labour.		[1]
		B reduce transport costs.		[1]
		C assembly line/mass production, storage of raw materials, finished vehicles, parking for workers, room for possible expansion.	<u>2 at 1 mark</u>	[2]
		D mass production, some skilled labour - component production, semi-skilled/unskilled - assembly work, office work, transport.		
		·	2 at 1 mark	[2]
(c)	(i)	named example - crop/system.		[1]
	(ii)	for each of three of transport, capital, labour, markets		
		additional marks	+ 1 + 1 marks 2 marks	[5]
	(iii)	processes - e.g. sowing, transplanting seedlings etc.	0.44	501
		n.b. for a general account allow 3 MAX for processes	<u>3 at 1 mark</u> ONLY	[3]
6 (a)	(i)	20%		[1]
	(ii)	coal.		[1]
	(iii)	less pollution, both are renewable sources of energy.	2 at 1 mark	[2]
	(iv)	A wind not constant,		
		noise.	1 mark	
		B sun's energy varies, difficult to store. allow cost/visual pollution in either A or B	1 mark	[2]
	(v)	high cost, oil/natural gas provide more energy, competition with renewable forms of energy, declining reserves, non renewable,		
		pollution - allow development up to <u>2 marks</u>	<u>3 at 1 mark</u>	[3]
(b)		plentiful supply, transportable – supertankers/pipelines.		

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Page 8		Mark Scheme		Syllabus	Paper
		IGCSE – June 2003		0460	01
(c)	advantages less pollution tha large reserves o low running cost	f uranium,	Rese	erve 2 mark	<u>s</u>
	Chernobyl, radio-activity - he difficulty of storing	ng/disposing of nuclear waste, tations take a long time to build, mantle, renewables.	Rese	erve 2 marks 1 mari	
(d) (i)	income, employment dire other related em diversifies econo preservation of c improved standa better cultural ur preserves natura	aployment - building, transport etc. omy, cultural heritage, ard of living, nderstanding, al environment, can be used by local people,		me) <u>5 at 1 mar</u>	<u>k</u> [
(ii)	A area (allow na	ational parks in general)			[
	B publicity, education/aware	eness,			

ture –

planning control,
develop nature tours,
encourage activities which are compatible with nature –
bird watching, jungle trekking, rafting etc.
establish national parks/forest parks etc.

3 at 1 mark [3]

Page 1	Mark Scheme	Syllabus	Paper
	IGCSE – June 2003	0460	02

1 (a) (i) steep rise in population up to 1999,

constant/steady growth,

almost trebled 1950-99,

varied estimates over the next 50 years,

high estimate will almost double again,

low estimate will level out at about 7 billions from 2020.

3 at 1 mark [3]

(ii) X birth rate well above death rate,

continues to grow rapidly.

Y as above but then reduction in growth,

increased death rate/declining birth rate.

2 at 1 mark [2]

(iii) **Z** birth rate above death rate,

then decline - lowering of birth rate,

reasons for low birth rate.

<u>2 at 1 mark</u> [2]

(b) (i) A reduction in birth rate -

birth control/contraceptives,

abortion,

sterilisation,

education about family planning/awareness/advertisements,

reward examples e.g.

China's one-child policy,

salary bonus - 10%,

priority in education/health facilities/employment/housing,

fines - 2nd child/annual tax, MAX 1 mark details - one child policy,

death rate higher than birth rate in some countries,

emancipation of women etc.

fall in birth rate - ageing population.

credit references made to rise in birth rate also.

B fall in death rate –

better medical facilities,

more food,

improved diets less malnutrition,

housing improvements,

more spending on older people,

education/awareness of need to look after the body/exercise etc.

increase in death rate in some countries -

aids etc.,

For each of **A** and **B**Additional mark for either

Reserve 3 + 3 marks

1 mark

[7]

Page 2	Mark Scheme	Syllabus	Paper
	IGCSE – June 2003	0460	02
inc	erpopulation, rease in dependency ratio, essure on services - electricity/gas/sanitation etc.,		
low pov gre hig fan ma dec ina	vering of living standards, verty, eater demand on resources, h levels of unemployment, nine/food shortages, Inutrition, cline of infrastructure - e.g. roads, dequate housing/squatters, ortages - water/land,		
ext Iow Iac	naustion of soil, vering of educational facilities, k of health facilities, ssible civil unrest etc.		
ροί		at 1 mark	[5]
larg sm 0-4 refe	pad/wide based pyramid - progressive, ge percentage below 15 years, all population over 65, narrower than 5-9, erence to shape, h dependency ratio.		
hig		e 2 marks	
low	vering of birth rate. Reserve	e 2 marks	
	X reference to reasons for high BR and high DR ditional marks	1 mark 2 marks	[6]
spa aw pos pos nea	arge area, acious layout/large car parking area, ay from congestion, assibly room to expand, assibly cheaper land, ar road junction - outer ring road and road from CBD, aximity to large residential area.		
рго		at 1 mark	[4]
in Î	unction of roads, arge residential area, ay from CBD.	at 1 mark	[3]
sm few nee	re local stores - convenience goods, all sphere of influence/low threshold, ver district shopping centres - competition, ed larger threshold,	<u>at i mant</u>	[ο]
mo	st of local shops - in older residential areas. 3	at 1 mark	[3]

			IGCSE – June 2003	0460	02
		(iii)	Area Z older,		
		(111)	grid-iron/rectangular layout,		
			less planning.	2 at 1 mark	[2]
	(b)		description/location	Reserve 1 mark	
			additional mark	Reserve 2 marks 1 mark	
			For each choice	<u>4 + 4 marks</u>	[4]
	(c)		to prevent urban sprawl, protect agricultural land, provide open space around town/city - recreation, prevent joining up of neighbouring towns/cities,		
			formation of conurbations,	alta	
			credit reference made to measures such as green towns/cities in developing countries - prevent developments.		
			no credit for examples.	<u>5 at 1 mark</u>	[5]
2	(a)	(i)	description of	<u>o at i mark</u>	[O]
3	(a)	(i)	description of – suspension, solution,		
			saltation, traction load.		
			2 names only without description	1 mark	F 41
				4 at 1 mark	[4]
		(ii)	loss of energy, insufficient water/small volume, especially during dry season,		
			shallowing of channel/braiding,		
			inner/convex bank of meander, river enters still water of lake/sea,		
			decrease in velocity, lessening of gradient –		
			below waterfall. river carries more load than it can transport,		
			Tiver carries more load than it can transport,	4 at 1 mark	[4]
	(b)	(i)	waterfall - resistant rock/cap rock, level topped,		
			high,		
			river splits over waterfall, river shallow above waterfall,		
			deposition above the waterfall/islands with vegetation turbulence, rapids,	on,	
			gorge/very steep sides/cliff,		
			gorge meanders, deposited rock fragments - side of gorge,		
			gullies.	<u>6 at 1 mark</u>	[6]

Mark Scheme

Syllabus

Page 4		Mark Scheme	Syllabus	Paper	
	- J	IGCSE – June 2003	0460	02	
	(ii)	interruption of river transport - waterfall, problem of bridging the gorge, road bridge carrying main road from settlement of Victori tourism - hotels, employment, contributed to growth of settlement, hydro-electric power.	a Falls, 5 at 1 mark	[5]	
(c)		resistant cap rock, underlying softer rock eroded, eddying/plunge pool, undercutting, erosopnal processes MAX 1 mark by splashback, unsupported, collapse, retreat leaving gorge.			
			6 at 1 mark	[6]	
4 (a)	(i)	high temperatures all year/every month 20° C - 30° C, low annual range 6° C, highest temperature - April 29° C, high annual rainfall, highest Dec. 270-280 mm, lowest rainfall Feb, May and Sept. about 180 mm,			
		no dry season.	4 at 1 mark	[4]	
	(ii)	emergents 40-45m, canopy layer 30m +, crowns interlock, lianas, epiphytes attached to branches/trunks, tall trees, straight trunks, first storey 15-20m, bark smooth, little leaf litter/undergrowth, trees close together, buttress roots, ferns, herbs and low growing plants, fungi, trees have broad leaves, drip tips, waxy/leathery leaves, shallow roots, evergreen forest.	5 at 1 mark	[5]	
	(iii)	tall trees compete for sunlight, little undergrowth - lack of sunlight, heavy rainfall/high temperatures - prolific growth, evergreen - no seasonal rhythm, drip tips/waxy leaves/allow water to flow off quickly, shallow roots - high rainfall - water in top layer of soil.			
		, ,	4 at 1 mark	[4]	

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1000L - Julie 2003 0400 02		IGCSE – June 2003	0460	02

(b) (i) A loss of forest,

14% Amazonia last 10 years, usable timber trees gone, empty fields, pasture overgrown, decline in cattle rearing, farming unprofitable.

3 at 1 mark [3]

B less interception,

more percolation,

increases flow into rivers by throughflow,

increased run-off,

rivers - more volume - flooding,

nutrient cycle broken/interrupted,

no roots to absorb nutrients from soil,

no replacement of nutrients with leaf fall and decay,

loss of nutrients to soil,

leaching by heavy rainfall,

higher rate of surface run-off with loss of nutrients,

loss of species,

animals die - loss of habitats, may become extinct,

burning - contributes to global warming.

4 at 1 mark [4]

(ii) n.b. other natural environments acceptable as well as tropical rain forest

with economic developments becoming less,

preserve the ecosystem,

prevent loss of species - plant and animal,

tourist potential,

control problems -

flooding,

soil erosion,

desertification,

global warming etc.

<u>5 at 1 mark</u> [5]

5 (a) Y greater dependence upon agriculture,

X developed countries, Y developing countries,

agriculture in X more mechanised,

X developed manufacturing C19-C20, **Y** developing manufacturing,

X more developed economies - greater demand for services,

X greater amount of skill/educated/trained labour force,

X more capital for investments.

5 at 1 mark [5]

	(b)		labour - large labour force required, assembly line, skilled/semi-skilled, components - large number, central location - assembling from many subsidiary fact raw materials - availability of sheet steel etc, siting factors - large area — large factory, storage, parking, level land, capital - large-scale production, factory, purchase/storage large quantities of components/raw in large labour force — salaries, transport - bringing components, vehicles - markets, assembling of large number of workers,		
			markets - home/regional,		
			export details.		
			named location	1 mark	F4 01
			for each of 4+ factors	<u>9 at 1 mark</u>	[10]
	(c)				[10]
6	(a)	(i)	cost, concerns over safety/radio-activity, difficulty of storing/disposing of nuclear waste, nuclear power stations take a long time to build, expensive to dismantle, limited life of power stations, competition with renewables.		
				<u>4 at 1 mark</u>	[4]
		(ii)	decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost, pollution - if developed up to 2 marks.		
				<u>5 at 1 mark</u>	[5]
		(iii)	renewable, little pollution, lower running costs, improved technology, security of supply - countries do not rely on others, some units small scale serve local areas - cut down on transport costs, short construction times, countries may cut down on costly oil imports.	<u>4 at 1 mark</u>	[4]

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Page 7	Mark Scheme	Syllabus	Paper
	IGCSE – June 2003	0460	02

(b) (i) named natural area 1 mark 3 at 1 mark natural attractions MAX 2 marks [4] other reasons e.g. accessibility (ii) help control: loss of natural landscape, natural attractions of area, up to 2 marks prevent over-development of infrastructure - roads, airports, hotels up to 2 marks cut loss of natural habitats, check pollution up to 2 marks MAX 2 marks general benefits e.g. employment 4 at 1 mark [4] (iii) publicity, education/awareness, planning control, develop nature tours,

encourage activities which are compatible with nature -

bird watching, jungle trekking, rafting etc. establish national parks/forest parks etc.

1	(a)	(i)	(estate) office.		= 1
		(ii)	187376 or 186376.	(Reversed or wrong square = 0)	= 1
	(b)	(i)	north-east.		= 1
		(ii)	2650 – 2800.		= 1
	(c)		forest, low forest/woodland, scrub, palms.	4 at 1	= 4
	(d)		banana and coconut.		= 1
	(e)		forest, narrow/deep valleys, highland/hilly/mountains, steep slopes, no flat land/all slopes/lack of flat, no/lack of roads/few, scrub/low forest/woodland.	4 at 1	= 4
	(f)		hospital/health, school/education, church/religion, post (office), police (station)/law, cemetery, public works department, water.	2 services = 1 mark 3 at 1	= 3
	(g)		mud/sand/beach, peninsula/point/headland, bay/cove, island/stack, cliffs, river mouth, wave cut platform, blow hole, (extract from place names).	4 at 1	= 4
2	(a)		P – mercury/alcohol, Q – muslin/gauze, R – wick/string/cord, S – water/reservoir/jar/bottle.	2 correct for 1 mark 2 at 1	= 2
	(b)		4°C,	= 1	
			dry bulb temp. minus wet bulb)	
			(temp)/25(°C) minus 21(°C).	= 1	= 2
	(c)		70%.		= 1

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	(d)		amount of water (vapour) in air expressed (as a %) of what the air could hold (at a given temperature).		= 1
3	(a)		A = 4 B = 1	2 at 1	= 2
	(b)	(i)	low birth rate low death rate, even shaped pyramid, few young many old.		= 1
		(ii)	high birth rate high death rate, wide base narrow top, many young few old, progressive.		= 1
	(c)		Stage 1/Stage 4, death rate higher than birth rate, more die than are born.	Stage and reason	= 1
	(d)		2, biggest difference between birth and death rate.	Both answers	= 1
4	(a)		2 correctly positioned lines.	2 at 1	= 2
	(b)		70(%).		= 1
	(c)		В	= 1	
			more primary/high, less secondary/few/smaller, less tertiary/few.	2 at 1 = 2	= 3
5	(a)		enlarged in size/more buildings/added riding stables.		= 1
	(b)		commuters.		= 1
	(c)		school, shop, post office,	(2 services for 1 mark)	
			bus stop.	2 x 1	= 2
	(d)		riding stables, restaurant, car park.	3 at 1	= 3
6	(a)	(i)	section/part of earth's crust/surface layer part of earth floating on mantle.		= 1
		(ii)	Nazca, South American, Antarctic.	Any 2	= 1

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Page 3			Mark Scheme	Syllabus	Paper	
				IGCSE – June 2003	0460	03
		(iii)		ng apart/diverging arating/spreading.		= 1
	(b)	(i)	epice	entre.		= 1
		(ii)		test intensity/nearest entre/above origin.	2 at 1	= 2
		(iii)	flood tidal brea dama lands	oly/damage,	2 at 1	= 2
7	(a)			ass/motorway, er) ring road.	2 at 1	= 2
	(b)		bus I	anes.		= 1
	(c)		park limite pede (inne multi	t/electric) railway/trains, and ride, ed access/no private cars, estrianised streets, er) ring road, i-storey, parks.	4 at 1	= 4

1	(a)		Name of student/group; date; time; weather; site number/location of recording	3 at 1 mark	[3]
	(b)		e.g. SW Path and NE Path becomes narrower overall; (1.9 – 0.3m) (1.9 – 0.2) – no comparison required	2 at 1 mark	[2]
	(c)	(i)	Detailed discussion/comparison based on site distance from Information Centre with reference to both paths; comment on the changes	Single point marking Res mark for across site/distance from IC.	
			across the path	Max 4 if no data	[6]
		(ii)	Unrepresentative site location; student inaccuracy in measuring/recognising bare ground; location of the centre of the path; no relief detail known	2 at 1 mark	[2]
	(d)	(i)	The number of visitors will change during the day; to gain a representative sample	1 at 1 mark	[1]
		(ii)	Tally counts	1 at 1 mark	[1]
		(iii)	400 m; total result highest at 400 m; over 400 m numbers rapidly decline	3 at 1 mark res 1 mark for distance credit data	[3]
	(e)	(i)	Trampling by feet; reduction in growth; removal of vegetation/plants/roots; roots no longer hold the soil together; susceptible to soil erosion by wind and water	5 at 1 mark	[5]
		(ii)	Information Centre – 400 m SW centre of path; use alternative routes to let plants recover; fence off area; put down wooden boards/tarmac	3 at 1 mark res 1 mark for suggestion	[3]
	(f)		At each 200 m site; design recording sheet; design environmental survey with scoring system; plenty of litter = high score/little little – low score	4 at 1 mark res 1 mark for location of survey	[4]

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Total 30 marks

2	(a)	(i)	The order of settlement;	1 mark	[1 mark]
		(ii)	No of services/traffic volume increases/decreases; Population increases; area increases	3 at 1 mark res 1 mark des/exp	[3]
	(b)	(i)	Data which the candidate did not collect/not primary first-hand collected data but collected by someone else e.g. map/census/weather station data	1 mark definition 1 mark example	[2]
		(ii)	e.g. Settlement A has basic services of Church, Postal Agency, School; Settlement B and C have different services in addition to the basic services	2 at 1 mark	[2]
	(c)	(i)	Correct plotting of data on		
			scattergraph: A = 4, 38 B = 7, 76 C = 14, 210	3 at 1 mark for correct plotting	[3]
		(ii)	As transparency best fit Line	2 marks if accurate 1 mark if within 2 mm	[2]
	(d)	(i)	Appropriate route way; appropriate	2 marks for each settlement	
			extent of settlement	type Max 1 if no diagram	[4]
		(ii)	Not to miss traffic; reference to linear or nucleated settlement patterns	1 mark for simple credit development	[2]
		(iii)	Different day; different time; different weather; representative sample/true picture/accurate/different traffic volume	2 at 1 mark res 1 mark for when and 1 mark for why	[2]
	(e)		Correct construction and completion of bar graph Axis number/divisions; labelling of both axes; Title appropriate; correct bars (i.e. 2,		
			10, 56);	5 at 1 mark	[5]
	(f)		Hypothesis true/correct; Comment in support using both traffic and services data concerning Settlements A, B and C focusing on the size of settlements and the number of services not type	4 at 1 mark res 1 mark for decision res 1 mark for traffic and services comment Max 3 mark if no ref to data	[4]

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Total 30 marks

Grade thresholds taken for Syllabus 0460 (Geography) in the June 2003 examination

	maximum	m	inimum mark re	equired for grad	e:
	mark available	Α	С	E	F
Component 1	75		39	30	20
Component 2	75	50	28	17	
Component 3	60	46	35	27	22
Component 5	60	43	33	19	15

The threshold (minimum mark) for B is set halfway between those for Grades A and C.

The threshold (minimum mark) for D is set halfway between those for Grades C and E.

The threshold (minimum mark) for G is set as many marks below the F threshold as the E threshold is above it.

Grade A* does not exist at the level of an individual component.