	Page 1	Mark Scheme	Syllabus	Paper
	raye i	IGCSE – June 2003	0460	01
1 (a)	(i)	60/61 years, 39/38 years.	2 at 1 mark	<u> [2]</u>
	(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 	o DR.	
(b)	(i)	tradition, religious pressures, zeal for son - inheritance, ignorance of large sectors of the population on need to 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 farm large number of children to look after parents in old ag high infant mortality - hence large families.	IS, e,	
	(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	<u>4 at 1 marł</u>	
	(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/ex		
(c)	(i)	5-9 years		[1]
()	(ii)	depend economically on the 15-64 years/working popu	ulation.	[1]

Page 2	Mark Scheme	Syllabus	Paper
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	(iii)	broad based pyramid - progressive, large percentage below 15 years, small population over 65, 0-4 narrower than 5-9, credit reference to the shape of the pyramid, no credit for references to birth rate/death rate.	2 of 1 mork	[2]
	(iv)	narrowing/reduction in youngest age groups – lowering of birth rate, increase in over 65s - increase in life expectancy/reduction of death rate, increase in 15-64 year olds - reduction in young age groups.	<u>3 at 1 mark</u> <u>3 at 1 mark</u>	[3]
2 (a)	(i)	CPD or rural urban fringe		
2 (a)	(i)	CBD or rural-urban fringe.		[1]
	(ii)	land too expensive in CBD, planning control in rural-urban fringe/urban area not gro out this far yet.	own	[1]
	(iii)	superstore - 1, district shopping centre - 2, row of shops - 5, small shops - 8/9.		[1]
	(iv)	size, sphere of influence/threshold differences, order of services - convenience/durable goods.	<u>2 at 1 mark</u>	[2]
	(v)	out-of-town/not surrounded by residential areas, larger, has area around store - parking, near major road junction, higher order shop/needs large threshold/sphere of influ- room for expansion.	ence, <u>3 at 1 mark</u>	[3]
	(vi)	large area, spacious layout/large car parking area, away from congestion, possibly room to expand, possibly cheaper land, near road junction - outer ring road and road from CBD proximity to large residential area.		[0]
			<u>3 at 1 mark</u>	[3]
	(vii)	Z - more main roads, grid-iron/rectangular pattern.		[1]
	(viii)	older, less planning in area Z .		[1]

	Page 3	Mark Scheme	Syllabus	Paper
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(b))	For each choice: description reason	<u>1+1mark</u> 2+2 marks	
(c	;) (i)	<pre>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.</pre> 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	<u>2 at 1 marl</u>	<u>(</u> [2]
	(ii)	shortage of land in the CBD encourage activities to locate away from city centre, skyscrapers, reclamation, urban renewal.		
		<i>housing shortages</i> build more houses, develop new towns/satellite towns, encourage movement away from city.		
		<i>traffic congestion</i> encourage traffic away from city centres/by-pass roads promote public transport, new public transport developments – mass rapid trans stagger working hours, urban motorways/freeways, encourage out of town parking, charges for entry to city centre, roundabouts NOT traffic lights.	port systems	,
		Credit reference to actual examples to illustrate MAX.	<u>1 mark</u> <u>4 at 1 marl</u>	<u>s</u> [4]
3 (a	a) (i)	material carried by river – sand, stones, mud etc.		[1]
	(ii)	three of: suspension, solution, saltation, traction load.		
			<u>3 at 1 marl</u>	<u> </u>

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	(iii)	loss of energy, insufficient water/small volume, especially during dry season, shallowing of channel/bra 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.	aiding,	[1]
(b)	(i)	straighten its course.		[1]
	(ii)	Q cliff at A , slip-off slope at B , opposite at R , symmetrical channel at P .	<u>4 at 1 mark</u>	[4]
	(iii)	outer/concave bank – more volume, greater velocity, more erosion – undercutting, bank collapse – steep slo inner/convex bank – less volume, less velocity, deposition – slip-off slope.	pe. <u>2 at 1 mark</u>	[2]
(c)	(i)	west/NW/WNW.		[1]
()	(ii)	2 km.		[1]
	(iii)	<pre>three of: waterfall – resistant rock/cap rock, level topped, high, river splits over waterfall, river shallow above waterfall, deposition above the waterfall/islands with vegetation, turbulence, gorge/very steep sides/cliff, gorge meanders, deposited rock fragments – side of gorge, gullies.</pre>		
	(iv)	interruption of river transport – waterfall, problem of bridging the gorge, road bridge carrying main road from settlement of Victo tourism – hotels, employment, contributed to growth of settlement, hydro-electric power.	<u>3 at 1 mark</u> oria Falls, <u>3 at 1 mark</u>	[3]

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	(d)	(i)	resistant cap rock, underlying softer rock eroded, eddying/plunge pool, undercutting,		
			by splashback.	<u>3 at 1 mark</u>	[3]
		(ii)	unsupported, collapse, retreat leaving gorge	<u>2 at 1 mark</u>	[2]
٨	(2)	(i)	tomporaturos		[-]
4	(a)	(i)	temperatures : high temperatures all year/every month 20° C - 30° C, low annual range 6° C, highest temperature - May 29° C.	<u>2 at 1 mark</u>	[2]
			rainfall: high annual rainfall, highest Dec. 270-280mm, lowest rainfall Feb, May and Sept. about 180 mm,		
			no dry season.	<u>2 at 1 mark</u>	[2]
		(ii)	A emergents/upper layer, B canopy layer, C lianas,		
			D buttress roots/undergrowth/shrubs.	<u>4 at 1 mark</u>	[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.		
				<u>3 at 1 mark</u>	[3]
	(b)	(i)	14%		[1]
		(ii)	timber, farming/cattle ranching, roads.		
				<u>2 at 1 mark</u>	[2]
		(iii)	no – marks for two reasons trees gone, empty fields, pasture overgrown, decline in cattle rearing, farming unprofitable.		
				<u>2 at 1 mark</u>	[2]

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	(iv)	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.	<u>4 at 1 mark</u>	[4]
(c))	 n.b. other natural environments acceptable as well as forest, with economic developments natural areas becoming preserve the ecosystem, prevent loss of species – plant and animal, tourist potential, control problems – flooding, soil erosion, global warming etc. 	-	[4]
5 (a)) (i)	A 9/8%,B 60%.	<u>2 at 1 mark</u>	[2]
	(ii)	X more in tertiary, more in secondary/manufacturing, less in primary.	<u>3 at 1 mark</u>	[3]
	(iii)	 X developed countries – Y developing, Y greater dependence upon agriculture, agriculture in X more mechanised, X developed manufacturing C19-C20, Y developing m X more developed economies – greater demand for set X greater amount of skill/educated/trained labour force X more capital for investments. 	ervices,	[3]
(b)) (i)	vehicle constructed by adding components on an asse inputs – what goes into assembly - components and raw materials, labour etc.	embly line, <u>2 at 1 mark</u>	[2]

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			IGCSE – June 2003	0460	01
		(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.	<u>2 at 1 mark</u>	[2]
	(c)	(i)	named example - crop/system.		[1]
		(ii)	for each of three of transport, capital, labour, markets Reserve 1 +	1 + 1 marks	
			additional marks	<u>2 marks</u>	[5]
		(iii)	processes - e.g. sowing, transplanting seedlings etc.	<u>3 at 1 mark</u>	[3]
			n.b. for a general account allow 3 MAX for processes 0		[0]
6	(a)	(i)	20%		[1]
		(ii)	coal.		[1]
		(iii)	less pollution, both are renewable sources of energy.	<u>2 at 1 mark</u>	[2]
		(iv)	A wind not constant, noise.	1	
			B sun's energy varies, difficult to store. allow cost/visual pollution in either A or B	<u>1 mark</u> <u>1 mark</u>	[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.		
				<u>2 at 1 mark</u>	[2]

			Mark Oak area		O all a have	Daman
Pa	age 8		Mark Scheme IGCSE – June 2003		Syllabus 0460	Paper 01
			IGCSE – Julie 2003		0460	01
(c)		les lar	vantages s pollution than coal, ge reserves of uranium, running cost. <u>R</u>	lese	erve 2 marks	2
		cor Ch rac diff nuc exp	oblems ncerns over safety/possible accidents, ernobyl, lio-activity - health problems, iculty of storing/disposing of nuclear waste, clear power stations take a long time to build, bensive to dismantle, mpetition with renewables.	2050	nuo 2 marke	,
		ado	ditional mark for either	lese	erve 2 marks 1 marl	-
(d)	(i)	inc em oth div pre imp bet pre	med region/country - reference only (no marks for ome, ployment directly, er related employment - building, transport etc., ersifies economy, eservation of cultural heritage, proved standard of living, eter cultural understanding, eserves natural environment, irist facilities can be used by local people, estige for country.	' nai	me)	
					<u>5 at 1 mark</u>	<u> </u>
	(ii)	A a	area (allow national parks in general)			[1]
		edi pla dev end bird	oublicity, ucation/awareness, nning control, velop nature tours, courage activities which are compatible with natur d watching, jungle trekking, rafting etc. ablish national parks/forest parks etc.	re –	<u>3 at 1 mark</u>	<u>(</u> [3]

Pa	age 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.		
			<u>3 at 1 mark</u>	[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. 	<u>2 at 1 mark</u>	[2]
	(iii)	Z birth rate above death rate, then decline - lowering of birth rate, reasons for low birth rate.	2 at 1 mark	[0]
			<u>2 at 1 mark</u>	[2]
(b)	(i)	 (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 <u>1 mark</u> 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/exe increase in death rate in some countries - aids etc.,	rcise etc.	
		For each of A and BReserveAdditional mark for either	<u>3 + 3 marks</u> <u>1 mark</u>	[7]

Page 2	Mark Scheme	Syllabus	Paper
	IGCSE – June 2003	0460	02

	(ii)	overpopulation, increase in dependency ratio, pressure on services - electricity/gas/sanitation etc., lowering of living standards, poverty, greater demand on resources, high levels of unemployment, famine/food shortages, malnutrition, decline of infrastructure - e.g. roads, inadequate housing/squatters, shortages - water/land, exhaustion of soil, lowering of educational facilities, lack of health facilities, possible civil unrest etc.	<u>5 at 1 mark</u>	[5]
(c)		broad/wide based pyramid - progressive, large percentage below 15 years, small population over 65, 0-4 narrower than 5-9, reference to shape, high dependency ratio.	eserve 2 marks	
		high birth rate, low life expectancy/high death rate, lowering of birth rate.		
		<u> </u>	eserve 2 marks	
		MAX reference to reasons for high BR and high DR additional marks	<u>1 mark</u> 2 marks	[6]
2 (a)	(i)	A large area, spacious layout/large car parking area, away from congestion, possibly room to expand, possibly cheaper land, near road junction - outer ring road and road from CB proximity to large residential area.	D,	
			<u>4 at 1 mark</u>	[4]
		B junction of roads, in large residential area, away from CBD.		
	(ii)	more local stores - convenience goods,	<u>3 at 1 mark</u>	[3]
	(")	small sphere of influence/low threshold, fewer district shopping centres - competition, need larger threshold,		
		most of local shops - in older residential areas.	<u>3 at 1 mark</u>	[3]

Page 3	Mark Scheme	Syllabus	Paper
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	(iii)	Area Z older, grid-iron/rectangular layout, less planning.		
			<u>2 at 1 mark</u>	[2]
(b)		description/location reasons <u>l</u> additional mark For each choice	<u>Reserve 1 mark</u> Reserve 2 marks <u>1 mark</u> <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, credit reference made to measures such as green to towns/cities in developing countries - prevent devel squatter settlements. no credit for examples.		
		·	<u>5 at 1 mark</u>	[5]
(a)	(i)	description of – suspension, solution, saltation, traction load. 2 names only without description	<u>1 mark</u> <u>4 at 1 mark</u>	[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,		
			<u>4 at 1 mark</u>	[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, gorge/very steep sides/cliff, gorge meanders, deposited rock fragments - side of gorge, gullies.		
			<u>6 at 1 mark</u>	[6]

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Page 4	Mark Scheme	Syllabus	Paper
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pro roa tou em co	erruption of river transport - waterfall, oblem of bridging the gorge, ad bridge carrying main road from settlement of Victoria urism - hotels, nployment, ntributed to growth of settlement, dro-electric power.	Falls, at 1 mark	[5]
un ed un erc by un co	sistant cap rock, derlying softer rock eroded, dying/plunge pool, dercutting, osopnal processes MAX <u>1 mark</u> splashback, supported, llapse, creat leaving gorge.		
		at 1 mark	[6]
lov hig hig hig lov	gh temperatures all year/every month 20° C - 30° C, v annual range 6° C, ghest temperature - April 29° C, gh annual rainfall, ghest Dec. 270-280 mm, vest rainfall Feb, May and Sept. about 180 mm,		
no	dry season. <u>4</u>	at 1 mark	[4]
ca cro lian ep tal str firs ba littl tre bu fer tre dri wa sh	nergents 40-45m, nopy layer 30m +, owns interlock, nas, iphytes attached to branches/trunks, I trees, aight trunks, st storey 15-20m, rk smooth, le leaf litter/undergrowth, ses close together, ttress roots, rns, herbs and low growing plants, fungi, ses have broad leaves, p tips, axy/leathery leaves, allow roots, ergreen forest.	<u>at 1 mark</u>	[5]
littl he ev dri	l trees compete for sunlight, le undergrowth - lack of sunlight, avy rainfall/high temperatures - prolific growth, ergreen - no seasonal rhythm, p tips/waxy leaves/allow water to flow off quickly, allow roots - high rainfall - water in top layer of soil.		
511		at 1 mark	[4]

P	age 5	Mark Scheme	Syllabus	Paper
		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.	<u>at 1 mark</u>	[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.	<u>at 1 mark</u>	[4]
	(ii)	n.b. other natural environments acceptable as well as trop 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.		
5 (a)		 <u>5</u> Y greater dependence upon agriculture, X developed countries, Y developing countries, agriculture in X more mechanised, X developed manufacturing C19-C20, Y developing manufacturing C19-C20, Y developing manufacturing X more developed economies - greater demand for service X greater amount of skill/educated/trained labour force, X more capital for investments. 	-	[5]

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	(h)		labour large labour force required		
	(b)		labour - large labour force required, assembly line,		
			skilled/semi-skilled,		
			components - large number,		
			central location - assembling from many subsidiary fac	tories,	
			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 r	naterials.	
			large labour force – salaries,	,	
			transport -		
			bringing components,		
			vehicles - markets,		
			assembling of large number of workers, markets -		
			home/regional,		
			export details.		
			named location	<u>1 mark</u>	
			for each of 4+ factors	<u>9 at 1 mark</u>	[10]
	(a)		credit crop names/locations if given, RES and MAX <u>1 r</u>	nork	
	(c)		for each of natural inputs, human inputs, outputs/marke		
				+ <u>2 + 2 marks</u>	
				MAX 3 marks	[10]
6					
6	(a)	(i)	cost,		
0	(a)	(1)	concerns over safety/radio-activity,		
U	(a)	(1)	concerns over safety/radio-activity, difficulty of storing/disposing of nuclear waste,		
U	(a)	(1)	concerns over safety/radio-activity, difficulty of storing/disposing of nuclear waste, nuclear power stations take a long time to build,		
U	(a)	(1)	concerns over safety/radio-activity, difficulty of storing/disposing of nuclear waste,		
0	(a)	(1)	concerns over safety/radio-activity, difficulty of storing/disposing of nuclear waste, nuclear power stations take a long time to build, expensive to dismantle,		
0	(a)	(1)	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,	<u>4 at 1 mark</u>	[4]
0	(a)		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]
0	(a)	(I) (II)	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. decline in reserves,	<u>4 at 1 mark</u>	[4]
0	(a)		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]
o	(a)		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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost,	<u>4 at 1 mark</u>	[4]
o	(a)		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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy,		
0	(a)		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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost,	<u>4 at 1 mark</u> <u>5 at 1 mark</u>	[4]
0	(a)	(ii)	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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost, pollution - if developed up to <u>2 marks.</u>		
0	(a)		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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost,		
0	(a)	(ii)	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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost, pollution - if developed up to <u>2 marks.</u> renewable, little pollution, lower running costs,		
0	(a)	(ii)	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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost, pollution - if developed up to <u>2 marks.</u> renewable, little pollution, lower running costs, improved technology,		
0	(a)	(ii)	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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost, pollution - if developed up to <u>2 marks.</u> renewable, little pollution, lower running costs, improved technology, security of supply - countries do not rely on others,	<u>5 at 1 mark</u>	
0	(a)	(ii)	<pre>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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost, pollution - if developed up to <u>2 marks</u>. 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</pre>	<u>5 at 1 mark</u>	
0	(a)	(ii)	<pre>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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost, pollution - if developed up to <u>2 marks.</u> 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,</pre>	<u>5 at 1 mark</u>	
0	(a)	(ii)	<pre>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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost, pollution - if developed up to <u>2 marks</u>. 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</pre>	<u>5 at 1 mark</u>	
0	(a)	(ii)	<pre>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. decline in reserves, competition with oil/natural gas, competition with alternative sources of energy, high cost, pollution - if developed up to <u>2 marks.</u> 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,</pre>	<u>5 at 1 mark</u>	

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(b)	(i)	named natural area natural attractions other reasons e.g. accessibility	<u>1 mark</u> <u>3 at 1 mark</u> MAX 2 marks	[4]
	(ii)	help control: loss of natural landscape, natural attract prevent over-development of infrastructure - roads, a etc., cut loss of natural habitats, check pollution	up to 2 marks	
		general benefits e.g. employment	MAX 2 marks 4 at 1 mark	[4]
	(iii)	publicity		

 (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.

<u>4 at 1 mark</u> [4]

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	D	2 A A A		Mark Gr	heme	Syllabus	Paper
Page 1				Mark Scheme IGCSE – June 2003			
L			I			0460	03
1	(a)	(i)	(esta	te) office.			= 1
		(ii)	1873	76 or 186376.	(Reversed or wrong so	luare = 0)	= 1
	(b)	(i)	north	-east.			= 1
		(ii)	2650	- 2800.			= 1
	(c)		fores low fo scrub palm	prest/woodland,),		4 at 1	= 4
	(d)		bana	na and coconut.			= 1
	(e)		highla steep no fla no/la	t, w/deep valleys, and/hilly/mountains, slopes, at land/all slopes/lack of flat, ck of roads/few, b/low forest/woodland.		4 at 1	= 4
	(f)		schoo churc post police ceme	c works department,	2 services = 1 mark	3 at 1	= 3
	(g)		penir bay/c island cliffs, river wave blow	d/stack, mouth, cut platform,		4 at 1	= 4
2	(a)		Q – r R – v	nercury/alcohol, nuslin/gauze, vick/string/cord, vater/reservoir/jar/bottle.	2 correct for 1 mark	2 at 1	= 2
	(b)		4°C,	-		= 1	
			dry	bulb temp. minus wet b	ulb		
			(temp	o)/25(°C) minus 21(°C).		= 1	= 2
	(c)		70%.				= 1

Page 2				Mark Scheme		Paper	
				IGCSE – June 20	003	0460	03
	(d)		expr	unt of water (vapour) in air essed (as a %) of what the air d hold (at a given temperature).			= 1
3	(a)		A = 4 B = 1			2 at 1	= 2
	(b)	(i)	even	birth rate low death rate, n shaped pyramid, young many old.			= 1
		(ii)	wide man	birth rate high death rate, base narrow top, y young few old, rossivo			= 1
			prog	ressive.			- 1
	(c)		deat	e 1/Stage 4, h rate higher than birth rate, e die than are born.	Stage a	and reason	= 1
	(d)			est difference between birth and h rate.	Во	th answers	= 1
4	(a)		2 coi	rrectly positioned lines.		2 at 1	= 2
	(b)		70(%	6).			= 1
	(c)		В			= 1	
			less	e primary/high, secondary/few/smaller, tertiary/few.		2 at 1 = 2	= 3
5	(a)			rged in size/more buildings/added g stables.			= 1
	(b)		comi	muters.			= 1
	(c)		scho	ool.			
	()		shop post		(2 services for 1 mar	k) 2 x 1	= 2
	(d)			g stables, aurant, bark.		3 at 1	= 3
6	(a)	(i)		on/part of earth's crust/surface r part of earth floating on mantle.			= 1
		(ii)		ca, h American, rctic.	Any 2		= 1

	Page 3			Τ	Mark Scheme				Syllabus	Paper
					IG		- June 2003		0460	03
		(iii)	(iii) pulling apart/diverging /separating/spreading.							= 1
	(b)	(i)	epice	entre.						= 1
		(ii)			sity/nearest ve origin.				2 at 1	= 2
		(iii)	flood tidal brea dam land	oly/damage ding, waves,	unications/r ats/port,	of notor	water way,		2 at 1	= 2
7	(a)			er) ring roa					2 at 1	= 2
	(b)		bus l	lanes.						= 1
	(c)		park limite pede (inne multi	and ride,					4 at 1	= 4

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	Pa	age 1		Mark Scheme	Syllabus	Paper	
				IGCSE – June 2003	0460	05	
1	(a)		Nam	e of student/group; date; time;			
1	(a)		weat	her; site number/location of	3 at 1 mark	[3]	
	(b)		narro	SW Path and NE Path becomes ower overall; (1.9 – 0.3m) (1.9 –		[0]	
			0.2)	– no comparison required	2 at 1 mark	[2]	
	(c)	(i)	both	ed on site distance from Res mark mation Centre with reference to site/distan paths; comment on the changes	int marking for across ce from IC.		
			acro	ss the path Max	4 if no data	[6]	
		(ii)	inaco bare	epresentative site location; student curacy in measuring/recognising ground; location of the centre of path; no relief detail known	2 at 1 mark	[2]	
			uie p		z al i maik	[2]	
	(d)	(i)	durir	o	1 at 1 mark	[1]	
			•				
		(ii)	Tally	counts	1 at 1 mark	[1]	
		(iii)		m; total result highest at 400 m; 400 m numbers rapidly decline res 1 mark f	3 at 1 mark or distance credit data	[3]	
	(e)	(i)	remo roots susc	s no longer hold the soil together; eptible to soil erosion by wind	5 at 1 mark	[5]	
		(::)	مولو	motion Control 400 m SM			
		(ii)	centi to le	mation Centre – 400 m SW re of path; use alternative routes at plants recover; fence off area; down wooden boards/tarmac res 1 mark for	3 at 1 mark suggestion	[3]	
	(f)		shee with	ach 200 m site; design recording et; design environmental survey scoring system; plenty of litter = res 1 mark for score/little little – low score	4 at 1 mark location of survey	[4]	

Total 30 marks

	D	246.2		Mark Cohomo		Syllahua	Paper	
Page 2					Mark Scheme Syllabu IGCSE – June 2003 0460			
					55	0400	05	
2	(a)	(i)	The	order of settlement;		1 mark	[1 mark]	
		(ii)		of services/traffic volume ases/decreases; Ilation increases; area increases		3 at 1 mark Irk des/exp	[3]	
	(b)	(i)	colle data	which the candidate did not ct/not primary first-hand collected but collected by someone else map/census/weather station data		k definition ⁺k example	[2]	
		(ii)	of Ch Settle	Settlement A has basic services nurch, Postal Agency, School; ement B and C have different ces in addition to the basic ces	2	2 at 1 mark	[2]	
	(c)	(i)		ect plotting of data on ergraph: 4, 38 B = 7, 76 C = 14, 210	3 at 1 mark for corre	ect plotting	[3]	
		(ii)	As tr	ansparency best fit Line		if accurate rithin 2 mm	[2]	
	(d)	(i)		opriate route way; appropriate nt of settlement	2 marks for each Max 1 if r	settlement type no diagram	[4]	
		(ii)		to miss traffic; reference to linear icleated settlement patterns	1 mark for si de	mple credit velopment	[2]	
		(iii)	weat	rent day; different time; different her; representative sample/true re/accurate/different traffic me	res 1 mar	2 at 1 mark k for when ark for why	[2]	
	(e)		of ba Axis both	ect construction and completion ir graph number/divisions; labelling of axes; appropriate; correct bars (i.e. 2,				
	(f)		supp data C foo	i6); othesis true/correct; Comment in ort using both traffic and services concerning Settlements A, B and cusing on the size of settlements the number of services not type	ء res 1 mark fo res 1 mark for	traffic and s comment	[5]	

Total 30 marks

	maximum	minimum mark required for grade:				
	mark available	A	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	

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

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.