

- 1 (a) (i) 60/61 years,  
39/38 years. 2 at 1 mark
- (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]
- (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,  
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/exercise etc. 4 at 1 mark [4]
- (c) (i) 5-9 years [1]
- (ii) depend economically on the 15-64 years/working population. [1]

- (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.  
3 at 1 mark [3]
- (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.  
3 at 1 mark [3]
- 2 (a)** (i) CBD or rural-urban fringe. [1]
- (ii) land too expensive in CBD,  
planning control in rural-urban fringe/urban area not grown  
out this far yet. [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.  
2 at 1 mark [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 influence,  
room for expansion.  
3 at 1 mark [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.  
3 at 1 mark [3]
- (vii) Z - more main roads,  
grid-iron/rectangular pattern. [1]
- (viii) older,  
less planning in area Z. [1]

(b) For each choice:  
description 1+1 mark  
reason 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 transport systems,  
stagger working hours,  
urban motorways/freeways,  
encourage out of town parking,  
charges for entry to city centre,  
roundabouts NOT traffic lights.  
Credit reference to actual examples to illustrate MAX. 1 mark

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.

3 at 1 mark [3]

- (iii) 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. [1]
- (b) (i) straighten its course. [1]
- (ii) **Q**  
cliff at **A**, slip-off slope at **B**,  
opposite at **R**,  
symmetrical channel at **P**.  
4 at 1 mark [4]
- (iii) **outer/concave bank** – more volume, greater velocity,  
more erosion – undercutting, bank collapse – steep slope.  
**inner/convex bank** – less volume, less velocity,  
deposition – slip-off slope.  
2 at 1 mark [2]
- (c) (i) west/NW/WNW. [1]
- (ii) 2 km. [1]
- (iii) **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.  
3 at 1 mark [3]
- (iv) interruption of river transport – waterfall,  
problem of bridging the gorge,  
road bridge carrying main road from settlement of Victoria Falls,  
tourism – hotels,  
employment,  
contributed to growth of settlement,  
hydro-electric power.  
3 at 1 mark [3]

- (d) (i) resistant cap rock,  
underlying softer rock eroded,  
eddying/plunge pool,  
undercutting,  
by splashback. 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. 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. 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]

- (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.

4 at 1 mark [4]

- (c) **n.b.** other natural environments acceptable as well as tropical rain forest,  
 with economic developments natural areas becoming less,  
 preserve the ecosystem,  
 prevent loss of species – plant and animal,  
 tourist potential,  
 control problems –  
 flooding,  
 soil erosion,  
 global warming etc.

4 at 1 mark [4]

- 5 (a) (i) **A** 9/8%,  
**B** 60%.

2 at 1 mark [2]

- (ii) **X** more in tertiary,  
 more in secondary/manufacturing,  
 less in primary.

3 at 1 mark [3]

- (iii) **X** developed countries – **Y** developing,  
**Y** greater dependence upon agriculture,  
 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.

3 at 1 mark [3]

- (b) (i) vehicle constructed by adding components on an assembly line,  
 inputs – what goes into assembly  
 - components and raw materials, labour etc.

2 at 1 mark [2]

- (ii) **A** cheaper production/skilled labour.
- B** reduce transport costs.
- C** assembly line/mass production, storage of raw materials, finished vehicles, parking for workers, room for possible expansion.
- 2 at 1 mark [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  
Reserve 1 + 1 + 1 marks  
 additional marks 2 marks [5]
- (iii) processes - e.g. sowing, transplanting seedlings etc. 3 at 1 mark [3]  
**n.b.** for a general account allow 3 MAX for processes ONLY
- 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. 1 mark [2]  
 allow cost/visual pollution in either **A** or **B**
- (v) high cost, oil/natural gas provide more energy, competition with renewable forms of energy, declining reserves, non renewable, pollution - allow development up to 2 marks  
3 at 1 mark [3]
- (b) plentiful supply, transportable – supertankers/pipelines. 2 at 1 mark [2]

- (c) **advantages**  
 less pollution than coal,  
 large reserves of uranium,  
 low running cost.

Reserve 2 marks

- problems**  
 concerns over safety/possible accidents,  
 Chernobyl,  
 radio-activity - health problems,  
 difficulty of storing/disposing of nuclear waste,  
 nuclear power stations take a long time to build,  
 expensive to dismantle,  
 competition with renewables.

Reserve 2 marks

additional mark for either

1 mark

[5]

- (d) (i) named region/country - reference only (no marks for name)  
 income,  
 employment directly,  
 other related employment - building, transport etc.,  
 diversifies economy,  
 preservation of cultural heritage,  
 improved standard of living,  
 better cultural understanding,  
 preserves natural environment,  
 tourist facilities can be used by local people,  
 prestige for country.

5 at 1 mark

[5]

- (ii) **A** area ( allow national parks in general)

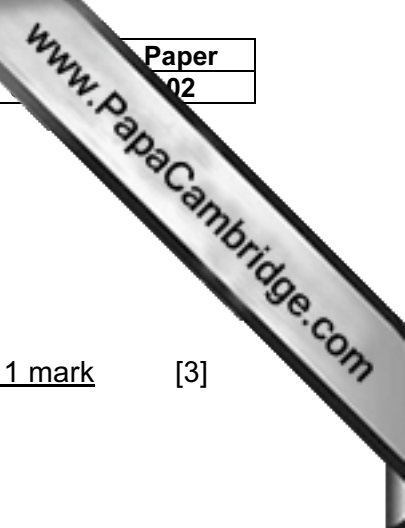
[1]

- B** 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.

3 at 1 mark

[3]





- 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.  
2 at 1 mark [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, 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** Reserve 3 + 3 marks  
Additional mark for either 1 mark [7]

(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.

5 at 1 mark [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.

Reserve 2 marks

high birth rate,  
 low life expectancy/high death rate,  
 lowering of birth rate.

Reserve 2 marks

MAX reference to reasons for high BR and high DR  
 additional marks 1 mark  
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 CBD,  
 proximity to large residential area.

4 at 1 mark [4]

**B** junction of roads,  
 in large residential area,  
 away from CBD.

3 at 1 mark [3]

(ii) more local stores - convenience goods,  
 small sphere of influence/low threshold,  
 fewer district shopping centres - competition,  
 need larger threshold,  
 most of local shops - in older residential areas.

3 at 1 mark [3]

- (iii) Area Z older, grid-iron/rectangular layout, less planning. 2 at 1 mark [2]
- (b) description/location Reserve 1 mark  
 reasons Reserve 2 marks  
 additional mark 1 mark  
 For each choice 4 + 4 marks [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 belts, towns/cities in developing countries - prevent development of squatter settlements. no credit for examples. 5 at 1 mark [5]
- 3 (a) (i) description of – suspension, solution, saltation, traction load. 2 names only without description 1 mark  
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, 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, gorge/very steep sides/cliff, gorge meanders, deposited rock fragments - side of gorge, gullies. 6 at 1 mark [6]

- (ii) interruption of river transport - waterfall,  
 problem of bridging the gorge,  
 road bridge carrying main road from settlement of Victoria Falls,  
 tourism - hotels,  
 employment,  
 contributed to growth of settlement,  
 hydro-electric power.  
 5 at 1 mark [5]
- (c) resistant cap rock,  
 underlying softer rock eroded,  
 eddying/plunge pool,  
 undercutting,  
 erosional 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]

(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.

5 at 1 mark [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]

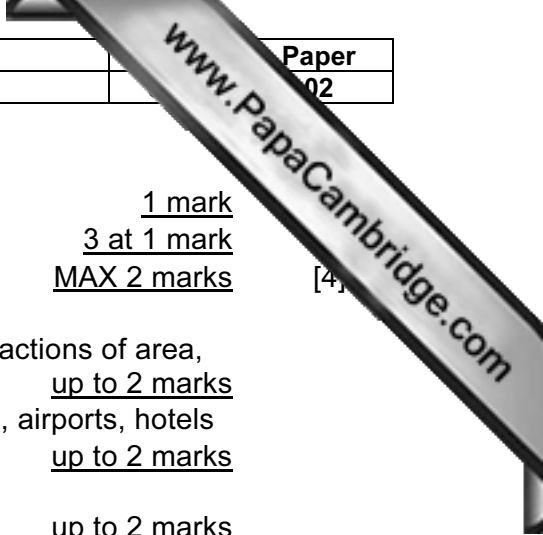
(b) **labour** - large labour force required,  
assembly line,  
skilled/semi-skilled,  
**components** - large number,  
central location - assembling from many subsidiary factories,  
raw materials - availability of sheet steel etc,  
**siting factors** - large area –  
large factory, storage, parking,  
level land,  
**capital** - large-scale production,  
factory,  
purchase/storage large quantities of components/raw materials,  
large labour force – salaries,  
**transport** -  
bringing components,  
vehicles - markets,  
assembling of large number of workers,  
**markets** -  
home/regional,  
export details.  
named location 1 mark  
for each of 4+ factors 9 at 1 mark [10]

(c) credit crop names/locations if given, RES and MAX 1 mark  
for each of natural inputs, human inputs, outputs/markets,  
processes, capital. Reserve 2 + 2 + 2 marks  
crops/outputs MAX 3 marks [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. 4 at 1 mark [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. 5 at 1 mark [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. 4 at 1 mark [4]



- (b) (i) named natural area 1 mark  
natural attractions 3 at 1 mark  
other reasons e.g. accessibility MAX 2 marks [4]
- (ii) help control: loss of natural landscape, natural attractions of area, up to 2 marks  
prevent over-development of infrastructure - roads, airports, hotels  
etc., up to 2 marks  
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,  
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. 4 at 1 mark [4]





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- 1 (a) (i) (estate) office.
- (ii) 187376 or 186376. (Reversed or wrong square = 0)
- (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, 2 correct for 1 mark  
S – water/reservoir/jar/bottle. 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

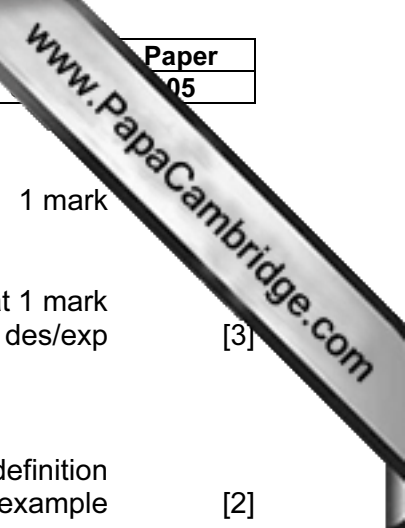
- (d) amount of water (vapour) in air expressed (as a %) of what the air could hold (at a given temperature).
- 3 (a) A = 4  
B = 1 2 at 1 = 2
- (b) (i) low birth rate low death rate, even shaped pyramid, few young many old. = 1
- (ii) high birth rate high death rate, wide base narrow top, many young 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) B = 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, bus stop. (2 services for 1 mark) 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

- (iii) pulling apart/diverging  
/separating/spreading.
- (b) (i) epicentre.
- (ii) city,  
greatest intensity/nearest  
epicentre/above origin. 2 at 1 = 2
- (iii) bursting of dam/loss of water  
supply/damage,  
flooding,  
tidal waves,  
break in communications/motorway,  
damage to boats/port,  
landslides,  
damage to bridge. 2 at 1 = 2
- 7 (a) by-pass/motorway,  
(outer) ring road. 2 at 1 = 2
- (b) bus lanes. = 1
- (c) (light/electric) railway/trains,  
park and ride,  
limited access/no private cars,  
pedestrianised streets,  
(inner) ring road,  
multi-storey,  
car parks. 4 at 1 = 4



- 1 (a) Name of student/group; date; time; weather; site number/location of recording  
3 at 1 mark
- (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 across the path  
Single point marking  
Res mark for across site/distance from IC.  
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]

**Total 30 marks**



- 2 (a) (i) The order of settlement; 1 mark
- (ii) No of services/traffic volume increases/decreases; 3 at 1 mark  
Population increases; area increases 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 extent of settlement 2 marks for each 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]

**Total 30 marks**

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

	maximum mark available	minimum mark required for grade:			
		A	C	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.