

**2005 Geography**

**Higher – Environmental Interactions**

**Finalised Marking Instructions**

**These Marking Instructions have been prepared by Examination Teams for use by SQA Appointed Markers when marking External Course Assessments.**

## Instructions to Markers: General Notes

### Procedure before Markers' Meeting

You are asked to make yourself familiar with the question paper and the marking instructions. Marking of scripts at this stage should be only tentative and none should be finalised or returned. Please note any point of difficulty for discussion at the meeting.

### Marking

- 1 The maximum mark for Paper 2 is 50. Markers are encouraged to use the whole range of marks and to give a high assessment for an answer of high quality.
- 2 The total marks assigned by you for each complete question should be entered in the outer right-hand margin of the answer book. When a question consists of more than one part, the marks assigned to each part **MUST BE SHOWN SEPARATELY** in the column provided on the inner right-hand side of the book.

It is of great importance that the utmost care should be exercised in adding up the marks. Where appropriate, all summations for totals and grand totals must be carefully checked. Where a candidate has scored zero marks for any question attempted '0' should be shown against the answer.

The **TOTAL** mark for any paper as recorded in the box at the top right-hand corner on the front cover of the script, and as entered on the Mark Sheet, must be given as a **WHOLE NUMBER**. Where a fractional mark has been given in a total mark, you must round up the total mark to the next whole number. Thus if the candidate gains, say, 29  $\frac{1}{2}$ , the mark 30 should be entered in the box on the front of the script **AND ON THE MARK SHEET**.

- 3 It is helpful in later procedures if points receiving marks are clearly indicated. In general a  $\frac{1}{2}$  mark should be awarded for a short correct statement with a full mark being awarded for a developed point.
- 4 All mistakes **MUST** be underlined in red pen. A wavy line (~~~~~) should be used for something that is not quite right, a single line (-----) for mistakes which, though not very serious, are undoubtedly wrong, and a double line (=====) for gross blunders. These corrections are valuable when borderline cases and appeals are being considered. Where a page shows neither a correction nor a mark, a red tick **MUST** be placed at the bottom right-hand corner.
- 5 The marker should take the candidate's answers strictly as they are written; no attempt should be made to read into answers ideas which the candidate may have intended to convey but which have not been successfully conveyed. A caret ( $\lambda$ ) should be used to indicate an important omission. A question mark (?) should be used to indicate that the marker cannot understand the meaning intended. The letter 'R' should be used to indicate that the candidate is repeating something already stated in the answer.
- 6 Care should be taken that no credit whatsoever is given to irrelevant parts of answers, however accurate the irrelevant passages may be. Irrelevant passages should be square-bracketed [ ].

It should be noted, however, that a fact or argument which is irrelevant in one candidate's answer may be made quite relevant by another candidate who has the ability to connect it to the question.

## Section 1

### Question 1 - Rural Land Resources

- (a) Candidates should be able to explain the variations in the number of visitors that different National Parks are able to attract. Candidates should identify the most popular Parks eg The Peak District and Lake District and the least popular eg Northumberland and Exmoor.

Influencing factors might include:

- Location in proximity to urban areas.
- Catchment area.
- Accessibility, especially to a motorway network.
- Scenery.
- Range of attractions or activities.

**Assess out of 5 marks.**

**5 marks**

- (b) (i) These areas may benefit from an influx of tourists by:

- Improved business for shops, hotels and restaurants.
- Employment opportunities in tourist attractions eg information centres, guided tours, training instructors and making local crafts.
- Increased property prices.
- Improved services eg local buses, toilets.
- Growth of local cultures eg art, music and crafts.
- Facilities may be improved or introduced eg sports and leisure facilities.
- De-population by young people may be reversed.

- (ii) Answers describing how increased traffic is managed could include the following:

- Park and ride schemes.
- Improved public transport.
- Bypasses.
- Closing areas off to traffic at peak times.
- Improved parking facilities.
- Reduce on-street parking.

Answers describing how fragile environments may be conserved could include the following:

- Educating visitors eg with leaflets.
- Constructing information centres.
- Fencing areas off from the public.
- Encouraging visitors to visit less fragile areas.
- Constructing special walkways eg duckboards.
- Signposting.

**Assess out of 9, with a maximum of 5 marks for (i) or (ii).**

**Allow up to 1 mark for authentic named examples.**

**9 marks**

(c) Candidates should mention both surface and underground features, such as:

- Limestone pavements.
- Sink/swallow/potholes.
- Dolines/shake holes.
- Disappearing/resurgent streams.
- Dry valleys.
- Gorges.
- Scars and scree.
- Caverns.
- Stalagmites/stalactites/pillars
- Gours
- Flowstone

Query. Please advise correct wording.

**Answers without any annotated diagrams should be marked out of 10.**

**11 marks**

**Assess answer out of 11 marks.**

**Authentic named examples can earn up to 1 mark.**

## Question 2 – Rural Land Degradation

(a) The three main processes can be described from the reference diagram:

- Surface Creep – the slow movement of the larger particles across the land surface.
- Saltation – the ‘bouncing’ along of lighter particles.
- Suspension – the lightest particles (dust) – being blown along the ground.

The explanation should focus on the principle that the wind can move smaller (lighter) particles more easily than larger (heavier) ones – hence the differences in process. The largest (and heaviest) particles (stones and boulders) will not be moved by the wind!!

**Assess out of 3 but both description and explanation needed for full credit.**

**3 marks**

(b) For **Africa North of the Equator** candidates might refer to:

- Overgrazing, over-cropping, deforestation, monoculture, burning, farming cash crops.

These should be carefully explained eg:

- Deforestation for firewood/building.
- Bush fires to clear land for farming.
- In some areas (eg Tigray) small farms have led to over-cropping.
- In some places peasant farmers have had to farm marginal land due to the best land being used for cash crops (eg in parts of Sudan).
- The drought may have caused nomads to move into villages where the land may now be over-cultivated (eg in Burkina Faso).
- Some candidates may make the general point that rapid population growth in the countries of the Sahel has contributed to this pressure on the land.

For the **Amazon Basin**:

- Deforestation – for eg ranching/mineral extraction/logging/road building/poor peasant farmers – detailed accounts of these processes can be accepted eg:
- The impact of ranching: forest cleared, used for a few years until grass fails – move and clear a new stretch of forest and continue the process.
- The impact of charcoal smelters associated in the early years of the Carajas iron-ore mine.

**Assess out of 8 marks.**

**8 marks**

**Award up to 1 mark for specific named examples.**

(c)

For **Africa north of the Equator** answers may include:

**People:**

- Crop failures and the resulting malnutrition leading to famine eg Sudan, Ethiopia and much of the Sahel.
- Migration on a large scale – usually into shanties on the edge of the major cities.
- The collapse of the nomadic way of life due to the lack of grazing and water.
- Many nomads forced to settle in villages – with a consequent increase in pressure on the surrounding land.
- The breakdown of the settled farmer/nomad relationship in places like Yatenga province in Northern Burkina Faso.

**Environment:**

- Soil structure breaks down due to over-cropping and over-grazing.
- Advance of the Sahara – ‘desertification’.
- Wind erosion of dried out soil/severe erosion from rains when they do eventually arrive.
- Lowering of water tables.
- Drying of the climate due to lack of moisture re-cycling and the Albedo effect.

For the **Amazon Basin** answers may include:

**People:**

- Destruction of the way of life of the indigenous people eg clashes between the Yanomami and incomers.
- Destruction of the formerly sustainable development eg rubber tappers and Brazil Nut collectors.
- Clashes between various competing groups eg the violent death of Chico Mendez allegedly at the behest of ranchers.
- Reduction of fallow period leading to reduced yields with obvious consequences for the dependent population.
- Creation of reservations for indigenous people.
- Increase in ‘western’ diseases.
- Increase in alcoholism amongst indigenous population.

**Environment:**

- Impact on the closed nutrient cycle.
- Leaching of minerals and laterisation.
- Increased run-off and flooding.
- Loss of wildlife habitat/biodiversity.
- Impact on global climate – Greenhouse Effect.

**Assess out of 6 marks.**

**Award up to 1 mark for additional named examples.  
‘People’ and ‘landscape’ required for full marks.**

**6 marks**

(d)

Soil conservation methods in North America might include:

- Crop rotation/diversification.
- Contour ploughing.
- Keeping the land under grass.
- Trash farming/stubble mulching.
- Shelter belts – used in the moister East.
- Strip cultivation – inter-cropping tall crops shelter smaller ones.
- Increased irrigation.
- Soil banks – farmers encouraged to keep soil under grass rather than plough it up.
- Increase farm size – the previous farm size of 160 hectares was based on moister eastern conditions – to support farmers in the drier west farms had to be bigger – but used less intensively.

**Assess out of 8 marks. For full credit some attempt must be made to explain how these methods help reduce land degradation.**

**Award up to 1 mark for specific locations.**

**8 marks**

### Question 3 – River Basin Management

(a) Answers may include:

- Lower rainfall to the north of Ghana.
- Possibility of transferring water to the drier north.
- Higher temperatures and evaporation rates to the north.
- Control of flood waters.
- Supply of irrigation to areas of need.
- Supply rural and urban areas with a domestic water supply and electricity.
- Supply electricity for industry (aluminium) in the south

**Assess out of 5 marks.**

**5 marks**

(b) Physical factors might include (depending on the dam chosen):

- Solid foundations for a dam.
- Narrow cross-section to reduce dam length.
- Large, deep valley to flood behind the dam.
- Permeability of rock below the reservoir.
- Sufficient flow of water from the catchment area.
- Evaporation rate.

**Assess out of 5 marks.**

**5 marks**

- (c) Answers will depend on the river basin chosen. However, some suggestions are outlined in the table below.

Benefits	Adverse Consequences
<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>• Greater population can be sustained with increased food supply.</li> <li>• Less disease and poor health due to better water supply and more food being available.</li> <li>• Recreational opportunities.</li> <li>• More widespread availability of electricity.</li> </ul> <p><b>Economic:</b></p> <ul style="list-style-type: none"> <li>• Improved farming outputs – surplus for sale?</li> <li>• HEP – industrial development creating job opportunities.</li> <li>• Water for industry.</li> <li>• Navigation opportunities.</li> </ul> <p><b>Environmental:</b></p> <ul style="list-style-type: none"> <li>• Increased fresh water supply improves sanitation and health.</li> <li>• Scenic improvement?</li> </ul>	<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>• Forced removal of people from valley sites.</li> <li>• Increased incidence of water borne diseases such as Bilharzia in irrigation channels.</li> </ul> <p><b>Economic:</b></p> <ul style="list-style-type: none"> <li>• Huge costs of new schemes.</li> <li>• Dependence on foreign aid/finance in the case of LDCs – consequent debt.</li> <li>• More money required for fertilisers.</li> <li>• Possible dislocation of communication links.</li> </ul> <p><b>Environmental:</b></p> <ul style="list-style-type: none"> <li>• Water pollution and industrial pollution.</li> <li>• Loss of alluvial supplies to flood plain.</li> <li>• Silting up of reservoirs.</li> <li>• Flooding of archaeological /historical sites.</li> </ul>

The points made should be authentic to the river basin selected!  
 Note that all six parts of the question should be referred to for full marks.

Reduce maximum by 1 mark for each part missed.

**Assess out of 12 marks.**

**Award up to 1 mark relevant to chosen scheme.**

**12 marks**

**(d)**

Again, political problems will depend on the chosen river basin but may include references to:

- Water control/dependence on neighbours upstream.
- Pollution levels across borders.
- Shared costs.
- Complex legislation over appropriate water shares and how these are determined.
- Reduction of water flows in some areas.
- Difficulty of predicting further demands.

**Explanations should be assessed out of 3 marks.**

**3 marks**

## Section 2

### Question 4 – Urban Change and its Management

(a) Answers should include authentic evidence of the cities studied. Depending upon the cities chosen answers may include some of the following:

- Continued city growth (ELDC) due to a combination of both natural increase and in-migration.
- The relative significance of these factors is often debated, though most authors stress the significance of the ‘youthful demographics’ of the cities in the ELDC and the on-going high birth rate as being the overriding factor.
- The high birth rate being linked to the youthful nature of the migrants.
- The high birth rate being linked to better nutrition, safer environment, access to clean water and better health care being found in the cities, compared to the surrounding rural areas improves infant/child survival rates and extends longevity.
- Migration however, still a powerful force for city growth, as the city is still perceived as offering more opportunities than the rural area and therefore still attracts migrants in large numbers.

Candidates should also reflect upon the reasons for the slow down in city growth in EMDCs and may suggest that this is related to:

- Outmigration from the physical environs of the city (although very often economically/socially tied to the city).
- Natural increase greater in the surrounding commuter villages and towns.
- Limited opportunities for the cities to grow outwith their current environs due to planning/environmental legislation, consequently an out-migration to surrounding towns/villages.
- The growth of towns at the expense of the cities.

**Assess out of six marks.**

**Max for either EMDC or ELDC.**

**Max 3 for references to natural increase.**

**6 marks**

(b) (i) Social, economic and environmental problems should be relevant to the candidate's chosen city and might include:

- Chaotic urban infrastructure eg incomplete water and sewerage supplies and connections leading often to the spread of disease.
- Unemployment /underemployment:
  - growth of the 'grey' economy and black market
  - drugs, crime, racketeering and prostitution are common in areas of cities in the LDC, and often involve a greater % of the population than in a city of the More Developed World. (cf "City of God", recent Brazilian movie based on a notorious favela in Rio de Janeiro)
  - Poor wages for unskilled jobs due partially to the huge supply of labour available
- Lack of services, schools and hospitals.
- Difficulties in encouraging city/public employees to work in the 'shanty areas'.
- Chronic traffic congestion and associated high levels of atmospheric pollution.
  - proliferation of 'informal' city transport (which depending upon the perspective adopted by the candidate can be either an advantage/disadvantage)
- Continued growth of 'shanty towns' in a range of locations in and around the city (see below).
  - 'natural' disasters, such as landslides resulting from inappropriate building techniques and methods on fragile or unstable land.

(ii) Again methods used to tackle the problems should be related to the candidate's chosen city.

In addition to a number of 'generic' solutions, of which an increase in the empowerment of the local people is crucial to advances in their social/economic well-being. This is often precipitated by aid/church groups which provide advice/counsel/lobbying facilities for the poorest elements of the population.

Most major cities that candidates are likely to have studied have plans to improve basic infrastructure, including provision of water/sewerage to established 'shanties'. Likewise improving the standard of basic education is being addressed.

The provision of hardware/utilities with the local populace providing the skill/effort to install these, is still a strategy used in some areas of Latin America, as is the 'basic shell' of housing being provided (a strategy still used in Brazil).

(iii) Some qualitative statement on the success/or otherwise of these schemes based on the candidates chosen city is required to attain full marks.

**Assess out of 10 marks with up to 6 marks for (i) and the balance for (ii) and (iii).**

**Allow up to 1 mark for specific named locations.**

**10 marks**

- (c) (i) Responses should include the recognition of the urban core being developed in the pre-car era, and the inappropriate urban form of the central city area. Depending on the city, this may be medieval, industrial, Victorian etc, all unsuited to car/private transport.

Some candidates may indicate the very location of the central city area was based upon a key feature that now causes congestion problems (eg defence sites, bridging points).

The central city area being focus of a major route network.

In addition to the historical factors candidates should provide some description/explanation of the attractiveness of the city centre and its pull on the surrounding populace. The generation of a large volume of traffic by the central city area should be identified by candidates.

The lack of flexibility (still) for many employees resulting in the 'rush hour(s)' which in some major cities can last for most of the day during the working week.

- (ii) The London example obviously focuses on the concept of 'Congestion Charging' which although unpopular has proven to significantly impact upon the congestion in central London (at the time of writing). This concept is being watched carefully by a number of other urban authorities.

Other deterrents include high parking costs, extra taxes proposed for parking in private office spaces, reducing the availability of routes in the city through designation of pedestrian areas, bus and taxi routes ONLY.

Improvements to and the encouragement/promotion of public transport. Efforts to integrate the various branches of the public transport network.

Encouragement of Park & Ride recognising the need for some personal car use for those more distant commuters where public transport is not a feasible option but to route these commuters to public transport on the city fringe.

Extension of urban rail networks [eg around Edinburgh (2003)].

Construction of urban motorways/by-passes [completion of the southern orbital around Glasgow (2005)].

Answers must make some evaluative comment on the strategies noted above for full marks.

**Award up to 6 for either section.**

**Award up to 1 mark for specific named examples.**

**9 marks**

### Question 5 – European Regional Inequalities

- (a) Credit should be awarded for candidates noting that Objective One status is awarded to Europe's peripheral areas.

Candidates may identify some/all of the countries benefiting from this support: Ireland, South West England, (Highlands of Scotland), Portugal & Spain, Southern Italy, Greece, Sweden & Finland and the former East Germany.

**Assess out of 4 marks. Max 3 for accurate named locations. 4 marks**

- (b) Countries would have benefited from:

- Support for infrastructure improvements (particularly transport).
- Support for human resources particularly employment training and education.
- Support for production/manufacturing sectors.
- Environmental protection.
- Improving access to the peripheral areas.
- Improving access to 'information society' both IT and addressing literacy issues. Also numeracy training receives support from the Objective 1 Fund.

**Assess out of 5 marks. 5 marks**

- (c) Candidates should be able to judiciously select from the data table evidence to determine the extent to which regional inequalities exist within Germany.

GDP gross monthly and percentage unemployment clearly indicate huge regional differences/inequalities within Germany. GDP ranges from 368€ in Bavaria through to 25€ in Saarland. Many candidates may identify that this Lander appears 'worst off' across a range of socio-economic statistics. For example Gross monthly earnings are also lowest in this Lander and are also low in Thuringia, Saxony-Anhalt, North Rhine Westphalia, whilst in Bremen, Hesse, Hamburg they reach above 3,400€.

Candidates should be awarded credit should they note the clustering of low economic figures to the east of the country.

Unemployment also tells a similar story with the highest figures being found in the east of the country.

The social statistic (hospital beds per 000) also indicates regional variations although the difference between the east and the west of the country is not so apparent, Berlin and Brandenburg having figures comparable with the western side of the country.

**Assess out of 6 marks. 6 marks**

- (d) (i) Detail of answer is obviously related to the country selected but may include:

**Physical factors**

- Geology.
- Relief.
- Climatic characteristics.

**Human factors**

- Accessibility.
- Geo-political factors (in the case of Germany particularly).
- Declining industries.
- Over-dependence upon a single sector of the economy.
- Poorly qualified labour pool.
- Ageing population.

**Assess out of 7 marks.**

**7 marks**

- (ii) Again response should be specific to the case study country.

For Belgium the proactive nature of the national governments investment in the declining mining areas and accessing EU funding to support national initiatives.

In the UK the funding and support of Enterprise Zones, the national support for inner city regeneration, the national support for cities through initiatives aimed at focussing on a city through 'City of Culture', 'City of Architecture' etc.

In Germany the additional taxes levied on the population to support the unification of the former East and West Germanys.

**Assess out of 3 marks.**

**3 marks**

### Question 6 – Development and Health

(a) (i) The Human Development Index is a social welfare index which is calculated by giving each country a score based on:

- Adult literacy rates.
- Average life expectancy.
- Average income per person adjusted to reflect local spending power.

The PQLI or Physical Quality of Life Index – another composite indicator is an ‘average’ of:

- Adult literacy rates.
- Average life expectancy.
- Infant mortality rate.

Accept any three relevant indicators.

Award up to 1 each correctly stated indicator and the balance up to 2 marks for comments on its usefulness eg:

Adult literacy rates show the percentage of the adult population who are able to read and write which, therefore, provides a measure of educational achievement/provision in a country. Economically more developed countries would be expected to have a high figure reflecting compulsory primary and secondary schooling whilst the least economically developed countries would be characterised by lower figures.

**Assess 2+2+2**

**6 marks**

(ii) Answers will, obviously, depend on the ELDC chosen but for Brazil could include:

- The South-East is much more prosperous than other regions due to the concentration of industry and commerce in the “Golden Triangle” of Sao Paulo, Rio de Janeiro and Belo Horizonte.

This area has the best transport system in Brazil, the greatest number of services, and has benefited most from Government help.

Coffee growing has long been carried out on the rich *terra rossa* soils around Sao Paulo producing job opportunities and creating wealth for the area and the national economy.

Rio de Janeiro – until 1960 the capital of Brazil – had the advantages of a good natural harbour which encouraged trade, immigration, industry, and more recently, tourism.

- The North-East, in contrast, is handicapped by more ‘negative’ factors such as periodic droughts, fewer mineral resources and a shortage of energy supplies all of which have encouraged outwards migration.
- The North (Amazonia) suffers from its more peripheral location, its inhospitable, rainforest climate, poor soils, dense vegetation and inaccessibility. Not surprisingly, it is the poorest of Brazil’s five main regions. Until recently, there was also a lack of government investment and much of the region has lost out on basic services such as health, education and electricity.

In addition to explaining the sorts of marked socio-economic regional variations, which exist in a huge and diverse country such as Brazil, candidates may also comment on the marked differences in living standards, which exist between relatively wealthy and better provided for urban areas, compared to poorer more isolated rural areas and to the contrasts that can be found *within* urban areas – eg hillside *favelas* such as Rocinho in Rio versus the prosperous apartments overlooking Copacabana Beach.

**Assess out of 6. Award a maximum of 4 marks for over-generalised responses which fail to make any specific/‘authentic’ references to the country chosen (or which make reference to more than one country.)**

**If more than one country referred to, mark the best one.**

**6 marks**

- (b) (i) Answers will, obviously, depend upon the disease chosen but for Malaria could include:

Attack and attempt to eradicate the vector (ie the female anopheles mosquito) by:

- Insecticides such as DDT sprayed on breeding grounds and in and around houses. *Cheap and effective but environmentally harmful (can enter food chain posing a threat to health) and due to be banned globally by 2007. Mosquitoes also build up a resistance to chemical insecticides.*
- Newer insecticides such as Malathion. *Less risky than DDT but more expensive since it is petroleum-based and needs to be used more often. It also stains walls etc a nasty yellow colour and has an unpleasant smell so is less popular!*
- Mustard seeds which become wet and sticky in water and drag mosquito larvae below the surface and drown them!
- Egg-white sprayed on stagnant water surfaces suffocates larvae by clogging up their breathing tubes. *Like mustard seed 'bombing' seems wasteful, impractical.*
- Bti bacteria grown in coconuts. Fermented coconuts are, after a few days, broken open and thrown into mosquito-infested ponds etc. Larvae eat the bacteria and have their stomach linings destroyed! *Cheap to produce; environmentally friendly bacteria harmless to livestock and humans; coconuts are plentiful and often grow beside ponds infested with mosquito larvae; 2/3 coconuts will 'control' a typical pond for up to 45 days.*
- Larvae-eating fish – *useful source of protein in people's diet.*
- Drainage of swamps etc – *requires considerable effort, not always practical in tropical environments.*

Treat those suffering from Malaria/attempt to stop people catching the disease by using drugs or avoiding being bitten by mosquitoes in the first place through –

- Drugs – Chloroquine (often taken with Paludrine) – *easy to use, relatively cheap but becoming ineffective in some areas as mosquitoes develop resistance to it.*
  - Larium – *more powerful and gives a greater degree of protection but can have harmful side-effects!*
  - Malarone – *fairly new drug which looks like being a success also recently made available in tablet form for children*
  - Malarone Paediatric – *said to be 98% effective and few side effects).*
- Vaccines – *still experimental. Dr Manuel Pattarroyo (Colombia) has developed one but it is still not in widespread use/generally accepted as being safe. A British vaccine has been trialled in Gambia and could be the breakthrough that everyone is waiting for. A vaccine would probably be easier to administer than a course of drugs and would give more lasting protection.*

- Education – ‘Prevention is easier than Cure’?!
  - use an insect repellent (eg Autan or Repel Plus)
  - cover exposed skin at dusk (when mosquitoes are most active and ravenous!)
  - sleep in a screened room under a mosquito net (even better if it has been sprayed with insecticide).

*All of these are fairly cheap and ought not to be too difficult to implement – Primary Health Care! It is thought that 30% of child deaths could be avoided, for example, if children slept under treated nets.*

- Quinghaosu – extracted from a plant – used as a traditional cure in China for 2000 years. *Put into a pill form it is easy to take and may be a possible major step forward especially given China’s improved relations with the West.*

No *one* solution has been found. A combination of strategies/control methods, combined with increasing public awareness/education programmes (eg WHO’s ‘Roll Back Malaria’ – a global campaign aimed at halving the number of malaria cases by 2010 which involves local people and cheap methods of control) will be needed to even keep malaria in check. Some progress may result from the £105 million which the Bill and Melinda Gates Foundation has set aside for:

- Funding a search for a vaccine.
- Researching how existing drugs might cut down on infection in infants.
- The development of new drugs to fight against resistant strains of the disease.

**(ii)** The benefits of controlling the disease for a LEDC could include:

- Saving money on health, medicine, doctors, drugs etc.
- Reduction in the national debt.
- Healthier workforce, increasing productivity.
- Longer life expectancy.
- Decreased infant mortality rate.
- Scarce financial resources could be spent on other areas such as education or housing.
- More tourists may be attracted if there was less risk of contracting malaria etc – more job opportunities, foreign currency earnings, increased prosperity ....

**Allow up to 10 marks for part (i), with the balance for part (ii).**

**Candidates who fail to provide any ‘evaluation’ (ie comments on the effectiveness of at least some of their control methods) should score a maximum of 7 marks.**

**13 marks**

[END OF MARKING INSTRUCTIONS]