

2003 Geography

Higher – Applications

Finalised Marking Instructions

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 under lined 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 (λ) 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.

Question 1

Rural Land Resources

- (a) Answers should include both underground and surface features.
Candidates might describe:

- Caverns
- Stalactites, stalagmites and pillars
- Underground lakes and rives
- Limestone pavements with clints and grykes
- Sink/pot/swallow holes
- Shake holes
- Gorges
- Scars/scree
- Dry valleys/disappearing and resurgent streams

Both description and explanation must be included for full marks and answers that fail to use diagrams should score a maximum of 8 marks.

A maximum of 4 marks for any one feature.

Max 2 for mere list of features.

Assess out of 10

(10)

- (b) Answers will depend on the upland area chosen, but could, for example include:

Forestry: **Economic opportunities** like Forestry Commission, plantations providing wood for furniture, building materials, Christmas trees etc

Social opportunities include forest walks, nature trails, picnic sites, mountain bike and orienteering courses.

Assess the selected opportunities either 3/3 or 2/4

(6)

Question 1 (continued)

(c) (i) Answers will depend on the “honeypot” area studied but problems and conflicts may include:

- Traffic congestion especially on narrow rural roads and in car parks
- Traffic congestion during peak holiday periods
- Air pollution from exhaust fumes
- Noise pollution from increased number of cars and people
- Erosion of footpaths around beauty spots
- Visitors may cause problems for farmers and landowners eg damage to stone walls, disturbing sheep during lambing season
- Areas of local interest may be spoiled eg rare species of plant may be damaged
- Attractive traditional villages may change as hotels, shops and cafes are opened
- Areas may begin to look artificial as rubbish bins, signs and man-made walkways are constructed
- Locals may find the area changing from its traditional roots as well as being crowded and they may leave

(ii) ‘Solutions’ could include:

- Traffic restrictions in more favoured areas; improved car and coach parking
- Reduce congestion on busy roads using a one way system
- Separate local and tourist traffic
- Encourage use of minibuses/park and ride schemes
- Attempt to develop a wider spread of “honeypot” areas
- Better visitor education/employment of park wardens
- Building of by-pass
- Repair of severely eroded footpaths using ‘terrain’ (a supportive three layer ‘carpet’)

Assess out of 9 awarding a maximum of 6 marks for either part (i) or (ii). Note that some candidates may produce a ‘composite’ response. Over generalised, non specific answers should score a maximum of 8. (9)

Award up to 2 marks for named features in and around one honeypot

Total marks: 25

Question 2

Rural Land Degradation

- (a) (i) Suggested points for each of the factors listed are given below:

Climatic Variability:

Unreliable rainfall where a series of wetter than normal years can give a 'false impression' of the land's capability. When followed by drier than average years the vegetation cover deteriorates and the soil becomes parched, friable and easily blown away.

In the Sahel rainfall may be confined to just one or two months of the year or come in several downpours when water is immediately lost through surface run-off resulting in widespread gullying. In some years the rains may fall altogether leading to lengthy periods of drought destroying areas of grazing land/encouraging desertification.

Global warming has often been suggested as the cause of increased rainfall variability.

Deforestation:

Loss of protective cover of leaves/branches allows heavy rain to erode soil and hot sunlight to bake it. This increases the speed of any chemical decomposition. The loss of root systems means the soil cannot be held together as well and also means there is less moisture re-cycling through root uptake and transpiration – adversely affecting future rainfall patterns.

In the Amazon, in particular, once the canopy of trees has been removed leaching (as well as soil erosion) occurs with the impact of afternoon thunderstorms on bare soil.

Overcultivation:

Impoverishes the soil as does the practice of monoculture which results in the loss of nutrients causing loss of structure and susceptibility to erosion.

Overgrazing:

Permitting more animals to graze pasture than the pasture can support (common in areas of West Africa where, for example, a Fulani tribesman's status is dependent on the size of his cattle herd) leads to removal of the protective vegetation cover and thus renders the soil open to erosion. Compaction of the soil (eg around water holes) can cause more rapid overland flow.

All of the above impoverish the soil and increase its vulnerability to erosion.

Mark 3/2/2 for the three chosen factors

(7)

(ii) Candidates might refer to the following points **for Africa north of the Equator**.

Impact on **People**:

- Death of livestock/crop failures – reduce food supply – destroys economic base
- Millions of people affected by drought/degradation – loss of life and livelihoods, disruption and heartache to families
- Famine and malnutrition remain a major problem in areas where drought has persisted (eg Ethiopia, Sudan)
- People are forced to move from drought-stricken areas to already over-crowded cities where they exacerbate the accommodation crisis.

Impact on the **Environment**:

- Soil structure breaks up due to overcropping and monoculture
- Soil exposed as a result of deforestation
- Torrential rain can easily erode this soil – gullies formed – difficult to repair
- Wind erosion can remove dried out soil
- Water table level reduced
- Intensified drought (due to albedo effect)
- Advance of the Sahara desertification.

Candidates might refer to the following points for the **Amazon Basin**:

Impact on **People**:

- Destruction of traditional ways of life amongst primitive Amerindian tribes such as the Yanomami, Boro or Woarani
- There have often been violent clashes between these indigenous people and newcomers intent on exploiting the rainforests resources
- Many native people have been ‘wiped out’ by ‘western diseases’
- Creation of Indian reservations
- People have been displaced and forced to move to crowded cities ending up living in *favelas*.

Impact on the **Environment**:

- Adverse effect on the rainforests closed nutrient cycle
- Leaching of minerals/removal of topsoil and increase in laterisation
- Increased run-off and flooding (localised effects)
- Loss of wildlife habitats/biodiversity; loss of potentially useful medical drugs
- Impact on global climate (Greenhouse Effect).

Assess out of 8 allowing up to 5 marks for either ‘People’ or ‘Environment’.

Answers which fail to mention any specific named locations should score no more than 7.

(8)

(b) (i) & (ii) Answers should be able to give reasonably detailed information about conservation techniques which, for **North America** might include:

- Crop rotation/diversification
- Contour ploughing
- Ploughing at right angles to the wind
- Trash farming/stubble mulching
- Planting of shelter belts
- Strip cultivation with alternative crops (taller and shorter ones!) in same area
- Increased use of irrigation
- Soil banks encourage farmers to keep some soil under grass rather than ploughing it up.

Answers may vary according to the area(s) of North America studied but some comment should be made on the effectiveness (or otherwise) of these strategies. For example:

- They are effective in that – despite subsequent droughts – there has been no large-scale repeat of the ‘Dust Bowl’ disaster of the 1930’s
- However, there was some crop loss in the severe droughts of the late 1980’s
- Sand dunes have been noted in western Kansas
- Techniques such as replanting of trees, grasses and hedges; contour ploughing and strip cultivation have been shown to reduce soil erosion by over 50%. Trees, bushes and grass – as well as acting as windbreaks – also improve water retardation and bind the soil together.

Africa north of the Equator might include:

- ‘Magic stones’ (Diguettes) – lines of stones laid to trap surface water run-off and soil
- Gullies, where possible, filled in with soil and replanted
- Afforestation
- Terracing on steeper slopes
- Improved irrigation
- Fencing off land from goats
- Methods of dune stabilisation
- Overgrazing reduced by having smaller but better quality herds.

These measures have had some level of localised success – eg in Burkina it has been relatively easy to demonstrate the viability of stone lines to a rural population which can provide the necessary labour to erect these across the farming landscape. The costs involved with some strategies, though, can be a problem for many Sahelian countries and there are often cultural barriers to be overcome in trying to reduce the size of herds (see (a) (i) above).

Amazon Basin might include:

- Returning forests to native people
- Mixed species reforestation
- Purchase of forest areas by conservation groups
- Use of alternative fast-growing species for fuel wood
- Projects involving the sustainable use of the forest
- Controls on timber extraction.

There are signs that such measures are beginning to slow down the rate of deforestation. However, the emphasis has to be on preventing further destruction of the forest since much of the degraded land is virtually impossible to rehabilitate in any way!

Assess out of 10 allowing a maximum of 8 marks for either area (most likely to be North American conservation methods!)

Answers which fail to make any comment on the effectiveness of the measures described should score a maximum of 8 marks.

(10)

Total marks: 25

Question 3

River Basin Management

- (a) The **description** should include reference to the general pattern/numbers of rivers and may refer to directions of flow eg lack of rivers in interior areas of North Africa (Sahara Desert). In North America sources tend to concentrate in the west (Rocky Mountain states).

Explanations might refer to mountain ranges as major sources of rivers (eg Western Cordillera in North America and Ethiopian Highlands in Africa) – due to their greater rainfall.

Assess out of 5

Maximum of 4 for either description or explanation (5)

- (b) (i) Physical factors might include:

- 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

(5)

- (ii) The hydrological cycle may be affected in the following ways:

- Less water flowing below dams
- Increased evaporation from the surface of massive reservoirs
- Infiltration rates affected by water held in reservoirs/irrigation channels
- Rivers being diverted
- Seasonal variations in river levels changing
- Water table levels changing.

Assess out of 5

(5)

- (iii) Answers will depend upon the basin chosen. However, some suggestions are outlined below:

Benefits

Social:

- Greater population can be sustained with increased food supply
- Less disease and poor health due to better water supply and more food being available
- Recreational opportunities
- More widespread availability of electricity.

Economic:

- Improved farming outputs – surplus for sale?
- HEP – industrial development creating job opportunities
- Water for industry
- Navigation opportunities.

Adverse Consequences

Social:

- Forced removal of people from valley sites
- Increased incidence of water borne diseases such as Bilharzia in irrigation channels.

Economic:

- Huge cost of new schemes
- Dependence on foreign aid/finance in the case of LDCs – consequent debt
- More money required for fertilisers
- Possible dislocation of communication links.

Assess out of 10 noting that:

- the points made should be authentic to the river basin chosen
- all four parts of the question should be referred to for full marks.

Reduce maximum by 1 mark for each part missed.

(10)

Total marks: 25

Question 4

Urban Change and its Management

- (a) (i)
- Urban growth continues in all Regions of the Developed and Developing World.
 - Most rapid rate of urban growth takes place in Africa, followed by Asia and Latin America and the Caribbean.
 - Rate of urban growth is significantly lower in Europe and North America.
 - Greatest increase in urban population takes place in Asia, with over 1,000 million being added to the total. Africa follows with around 400 million people being added to the urban population.
 - Population in Latin America and the Caribbean increases from around 400 million to about 600 million in 2030.
 - Increase in total numbers in Europe and North America is much more modest (approximately 100 million in Europe and slightly less than this in North America).
 - Changes in Oceania are not obvious due to the scale of graph. Candidates may speculate that urban growth proceeds apace here too.

- (ii) Explanations will depend on cities studied but one might expect candidates to differentiate between the powerful urbanisation pressures in operation in many of the world's Developing countries and the counter-urbanisation forces in operation in many cities in the Developing world.

Urbanisation pressures may be couched in terms of 'push – pull' factors. Candidates may refer to perceived (and real) employment and life enhancing opportunities found in the cities of the Developing world. The decline of subsistence agriculture, famine, war drought may be among those 'push' factors cited.

The more limited urban growth in the Developed world should be explained with reference to their Case Study city. This is likely to include a reduction of rural urban migration and a move to areas beyond administrative urban areas (thought firmly linked to the city for economic and social advantage). The lower rate of growth is also obviously related to the demographics of the Developed world as compared to their counter part cities in the Developing world.

Assess out of 7 awarding up to 4 marks for either part

(7)

- (b) (i) Problems are likely to include some/all of the following:
- Very poor housing provision
 - Limited sanitation and other basic infrastructure (water supplies, sewage disposal, electricity supply, road/transport links)
 - Poor education services and health facilities
 - Rapid spread of disease and general high levels of illness
 - High crime rates and poor levels of policing
 - Threat from criminal elements...the slide into crime; street crime, drug culture, prostitution
 - Lack of employment, though opportunities in the 'grey' economy may exist.
- (ii) Improvement strategies vary from city to city but many rely on the increased empowerment of the local population:
- Many improvement schemes place greater emphasis on the education of children, this is often supported by Aid Agencies, Church groups
 - Various Aid Agencies support low cost clinics in the poorest areas (Medicins Sans Frontieres, SCIAF)
 - Cities in some parts of the Developing world actively encourage local public servants to work in the poorest areas
 - In India, the well established democratic process permits the development of lobby groups that pressurise politicians at city and state level for improvements to the lives of the urban poor
 - Across the Developing world the model, first adopted in cities in Latin America, of hard ware and utilities being provided by local and national government funds whilst the actual construction is carried out by the local people is well established
 - Local co-operatives within slum areas often devise improvement plans and self help schemes at the local level
 - The provision of a basic infrastructure prior to any building of housing has proved effective in some areas
 - In Latin America (Brazil) a concerted effort to improve the status and perception of the police service is now in place in an effort to improve life in the *favelas*.

The success of the strategies varies but any gains are always under intense pressure due to the continuing increases in the urban populations of the major cities in the Developing world.

Answers ought to be able to relate to a city studied in the Developing world.

Allow up to 6 marks for either part.

Answers which fail to provide any comment on the effectiveness of the strategies adopted should score a maximum of 8 marks.

(10)

(c) Answers should reflect the need for a redevelopment area in the candidate's Case Study city eg London Docklands, Glasgow's GEAR or waterfront, Liverpool's Docklands.

(i) Redevelopment often necessary due to:

- Changing industrial base of the area, decline in heavy industry shipbuilding, engineering, warehousing etc due to competition from overseas, movement of port facilities downstream, lack of inward investment etc
- Deterioration of housing stock which was often originally built to house employees of the now closed industries. Out migration of the original population leaving abandoned areas
- Revised view on the value of industrial sites close to heart of major cities
- Pressure to redevelop 'Brownfield sites'
- Opportunity to provide new housing on relatively cheap land to a wealthy market.

(ii) Changes may include a complete change in land use from industrial to residential:

- In some cities the land use has remained industrial but changed to provide renovated Brownfield sites for Hi-Tech industries eg 'Barr & Stroud' on Glasgow's waterfront
- Recreation facilities have often accompanied the redevelopments that have taken place
- Tourist provision has also grown significantly in some of the cities
- Other changes may include transport improvements utilising land 'released' from dereliction.

Effectiveness of the changes varies according to the case study but may include some of the undernoted:

- Increase in city centre populations
- Increase in employment opportunities
- Reduction in 'blighted' land
- Increase on visitor numbers (particularly true in Glasgow, Newcastle and Liverpool where significant dockside redevelopment has taken place)
- Limited impact on the most 'needy' in society?
- Some inner city redevelopment has improved the housing condition for the population in local authority housing and increased the number of homes for sale from private developers (Glasgow's GEAR area)
- Some of the housing stock (eg London Docklands) is beyond the price range of the local population, who therefore have to migrate.

Assess out of 8, either 3:5 or 4:4

Answers which fail to comment on the effectiveness of the changes should score a maximum of 7.

(8)

Total marks: 25

Question 5

European Regional Inequalities

(a) (i) The data provided does tend to support the existence of a North-South divide within the UK. Candidates should be able to identify the following obvious trends:

- House prices – much higher in East, South East, South West and London. Much lower in the North East and Yorkshire and the Humber. Overall there is general increase in price southwards
- Average Gross Weekly Earnings – more complex pattern although a general trend to higher earnings towards the south. The relatively high figure for Scotland might be noted along with the very much higher figures for London and the South East
- Cars per 1000 – general pattern does illustrate a North-South divide although the North East has a lower figure
- Unemployment – again a North-South pattern exists although the North West and (surprisingly) London stand out against this trend.

For full credit at least 3 of the indicators must be discussed.

Assess out of 6

(6)

(ii) Answers may include the following:

Physical factors:

- Relief – more mountainous environments and harsher climate further north especially in North West Scotland, Northern England and Wales. More benign environment in the South and East.

Human factors:

- Differences in degrees of remoteness/isolation/communications
- North further from the Euro-core – whilst the South East and London are part of it
- Decline of traditional industries coal/iron and steel (recent and impending closures in the North East and Wales) and shipbuilding in the North/growth of new industries in South – M4 corridor/ Cambridge science park etc
- Larger range of employment opportunities in the South.

Candidates should be able to illustrate their answer with reference to specific named locations. Credit specific named examples up to 2 marks.

Assess out of 10

(10)

- (b) (i) The steps taken to reduce regional inequalities will vary depending upon the country chosen but may include some/all of the following:

UK:

- Government incentives: Regional Development status, capital allowances, training grants, assistance with labour costs, rent-free arrangements
- Government intervention: relocation of specific government offices (eg National Savings Bank to Glasgow, DVLC to Swansea, Child Benefit Offices to Newcastle) to 'problem' areas.

Southern Italy:

- Cassa per il Mezzogiorno
- Regional Development Plans
- Direction of State-owned firms to invest in the South.

Southern Belgium:

- Capital investment grants in old coalfield areas
- Exemption from corporate income tax for advanced technical research companies
- State subsidies to steel and coal industries.

European Measures include:

- European Regional Development fund (ERDF) which provides a wide range of direct and indirect assistance to encourage firms to move to disadvantaged areas eg loans, grants, improvements to local infrastructure (road/ferry ports etc)
- European Investment Bank (EIB) concentrates on providing loans for projects in less developed regions – factory modernisations, infrastructural improvement
- European Social Fund (ESF) – Grants to improve job opportunities – retraining for agricultural workers or redundant miners or steelworkers – assistance with relocation.

Some comment of effectiveness is required for full credit – again this will depend upon the country chosen – but may pick up on the problem of the EU preventing national governments from over-subsidising industries or providing too many sweeteners to encourage inward investment. Both of these in the interests of 'competition'. In addition, despite great efforts on the part of both the EU and national governments inequalities remain (the UK is a good example of this).

Assess out of 9

(9)

Total marks: 25

Question 6

Development and Health

- (a) (i) Candidates should be able to identify several differences between regions using the figures provided. There is no doubt that the South East is by far the most developed region having the highest percentage of households with electricity, the second greatest number of hospital beds per 1000 of the population, the lowest equal (with the South) child illiteracy rates and the lowest proportion of juveniles in the population. In contrast, the North “comes last” in three of these with the North East (second-poorest) being noticeably the worst off of Brazil’s five regions when it comes to educational provision with a comparatively huge 13% of its 10-14 year olds in urban areas unable to read and write.

Assess out of 5 giving credit to answers which make good use of statistics to illustrate comparative statements. (5)

- (ii) Answers will, obviously, depend on the **Developing** World country chosen. Points which could be mentioned to account for the wide regional disparities which exist in **Brazil** might include:

- The concentration of industry and commerce and, therefore, relative prosperity in the highly urbanised “Golden Triangle” of Sao Paulo, Rio de Janeiro and Belo Horizonte
- Rio de Janeiro was, until 1960, the capital of Brazil and had the advantages of a good natural harbour which encouraged trade, immigration, industry and, more recently, tourism.
- The South-east has the best transport system in Brazil, the greatest number of services, and has benefited most from government help
- Rich *terra rossa* soils around Sao Paulo were ideal for the growing of coffee – a major export and revenue earner
- The North East, in contrast, is handicapped by more ‘negative’ factors such as periodic droughts, fewer mineral resources and a shortage of energy supplies
- The North (Amazonia) suffers from its more peripheral location, its more inhospitable rainforest climate, poor soils, dense vegetation and inaccessibility. 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.

Assess out of 5 (5)

If a Developed Country – max 2½

(iii) Answers ought to be able to point out the flaws associated with using indicators which are averages and, therefore, might disguise wide variations that may exist within individual regions – eg

- contrasts between urban and rural areas (urban areas are usually much better provided for)
- contrasts within urban areas – eg hillside *favelas* such as Rocinho in Rio versus the prosperous apartment area overlooking Copacabana Beach.

Certain indicators may not be that relevant to the real quality of an individual's life or aspirations anyway!

Award up to 1 mark for reference to census problems

(3)

Assess out of 3

(b) Answers will depend on the disease chosen but for malaria* might include:

(i) Environmental factors:

- Suitable breeding habitat for female *Anopheles* mosquito – areas of stagnant water such as tank wells, irrigation channels, water barrels, padi fields etc to lay larvae in
- Hot wet climates such as those experienced in the Tropical Rainforests or Monsoon areas of the world.
- Temperatures of between 15° and 40°C
- Areas of shade in which mosquito can digest human blood.

Human Factors:

- Nearby settlement to provide a 'blood reservoir'
- Encouraged by bad sanitation and poor irrigation or drainage.

(There may be some overlap between human and environmental factors)

(ii) Control methods could include:

- Insecticides such as DDT or, more recently, Malathion
- Blood parasites treated with anti-malarial drugs such as Chloroquine
- Releasing water from dams to drown immature larvae
- Genetic engineering of sterile male mosquitoes
- Drainage of breeding sites
- Planting eucalyptus trees to soak up moisture
- Small fish introduced to padi fields to eat larvae
- Mustard seeds put into padi fields drag larvae below surface and drown them
- Egg white sprayed on stagnant water surfaces suffocate the larvae
- Coconuts 'impregnated' with Bti bacteria are thrown into mosquito – infested ponds. Larvae eat the bacteria and, in the process, have their stomach linings destroyed!
- Health education – encourage use of mosquito nets, don't expose bare flesh at dusk when mosquitoes are at their most voracious etc.

(iii) (continued)

Some appropriate comments on the effectiveness of these control methods might be:

- DDT initially very successful but Malaria has returned to areas where it was thought to be well under control eg Sri Lanka. DDT is now regarded as being environmentally harmful and due to be banned worldwide
- Greater development of large-scale irrigation schemes has encouraged a re-infestation to many areas which were malaria-free
- Large-scale migration and the growth of shanty towns has also led to a resurgence
- Mosquitoes have become resistant to insecticides and anti-malarial drugs
- Coconut method generally effective – cheap to produce, environmentally friendly, readily available and 2 or 3 will ‘control’ a mosquito-risk pond for up to 45 days
- Malathion, although less risky than DDT, is oil-based and, therefore expensive to produce. Also unpopular as it stains walls a nasty yellow colour, has an unpleasant smell and needs to be applied more often
- Colombian, Dr Manuel Pattaroyo’s vaccine is still not in widespread use/generally accepted as being totally safe. Others are under development
- Over 400 million people still suffer from the disease
- The World Health Organisation now accept that complete eradication is unlikely. To date, no one solution has been found. A combination of strategies/control methods combined with increasing public awareness/education campaigns will be needed to even keep Malaria in check.

Assess out of 12 awarding a maximum of 7 for any one part (most likely to (ii) – control methods). Some candidates may opt for a composite approach where, for example, parts (ii) and (iii) are taken together. All three parts must be answered for full marks. (12)

Total marks: 25

*Bilharzia featured in the 2000 Marking Scheme and Cholera in 2001

[END OF MARKING INSTRUCTIONS]