Edexcel

Success through qualifications

Ordinary Level

Geography

Notes for Guidance of Teachers

Table of Contents

		Page
1.	Introduction	1
2.	The New Syllabus	1
3.	Completing Fieldwork	11
4.	Answers to some Specimen Questions	15

Due to a technical problem, diagrams are unable to appear in this version.

1. INTRODUCTION

The 7209 syllabus, devised in the mid 1970s and innovative in its day, has in some ways been overtaken by political, economic and even physical changes in the world, and by new approaches to the teaching of Geography.

In revising the syllabus, the aim has been to accommodate these changes whilst retaining those features which have proved popular with both teachers and candidates. In particular, it retains the flexibility which allows teachers and candidates to choose their own illustrations of the concepts and themes to be covered, according to their resources and inclinations. It is hoped that these changes do not require resources which are not already in use or readily accessible, and that they take into consideration the widely varying conditions in which candidates prepare for this examination.

2. THE NEW SYLLABUS

Introduction

Although there will be no compulsory mapwork question, the examination will normally include at least one question based on a topographical map (which may appear on either paper) where candidates can demonstrate their map reading skills. Such maps will ***normally*** be on a scale of 1:50 000 or 1:25 000, complete with a key to conventional symbols. A larger scale plan of part of a town or city may sometimes be used. Simple techniques, such as measuring distances, or identifying directions, may also be tested on other types of maps.

As the questions in the specimen papers show, the interrelationships between different parts of the syllabus, for example physical/human relationships, will be examined, so candidates should be prepared to explain aspects of both physical influences on human activity and the human impact on the physical environment. In selecting exemplar material, teachers should choose case studies at a scale suitable to a topic. The impact of an irrigation scheme, for example, could be based on a very local development or a major scheme in another country, but attempts to conserve tropical rainforest need to be studied in a specific area rather than the whole of, say, the Amazon forests or Borneo.

Case studies and, ***wherever appropriate and possible***, fieldwork should be used to

exemplify the syllabus, and candidates should be encouraged to be aware of current developments within their own country or region by direct observation or through the media, and to use them in their answers. Geographical perspectives of current global issues should also be studied. Most of the questions will involve response to stimulus material in the form of a map, diagram, graph, passage of text or table, which will then lead on to a more general theme often requiring reference to relevant case studies or fieldwork. It is therefore essential that candidates study the syllabus largely in the context of case studies and that these should be selected to provide adequate detail and relevance.

It is often useful to use case studies which can be used in more than one context, provided that candidates are trained to select the relevant material for a question; for example, a study of western Malaysia can provided examples of:

- increased food production
- improved plantation crops
- rapid industrialisation
- container ports

and so on.

In order to provide these case studies, information can be obtained from:

1. **Newspapers & Magazines** - Articles on transport improvements, planned agricultural developments, irrigation schemes, town improvements may provide useful information about changes within the candidates' own country. An understanding of the benefits or disadvantages of such schemes should be encouraged, and details of the location and development rather than vague awareness should be required.

   Global issues and events can also be kept up-to-date from such sources, e.g., details of specific volcanic eruptions or earthquakes (again with precise location and effects) can be gathered, and world problems of trade, etc., are often covered. Students who have access to such sources should be encouraged to contribute items to the school's or colleges files.

2. **Television** - Teachers may from time to time see programmes or news items which will be of use in their teaching. It is helpful to note the key points at the time or as soon as possible after.

Candidates should be encouraged to be as up-to-date as possible and to quote their own local examples wherever relevant. It is important, however, that they can locate such examples accurately and describe them in detail. Vague references to places or areas earn few marks in examinations.

Candidates are no longer required to differentiate between the highly developed and less developed areas of the World, which were regarded as being an artificial division, many

developments and problems now being common to both. In many questions examples may be drawn from anywhere in the world, but some sections of questions may restrict the choice of example. Reference to the World Bank classification of countries will help to identify possible areas, but the table below (which is not exhaustive) may be of assistance:

Advanced Industrial Countries (AIC)	USA, Canada, the countries of the European Union, Japan, Australia, New Zealand
Middle Income Countries (MIC) (* denotes Newly Industrialised Countries (NIC))	*Brazil, Venezuela, Argentina, Nigeria, Libya, *Malaysia, *Singapore, *Taiwan, *Hong Kong, *S. Korea, *Mexico
Low Income Countries (LIC)	Most of Africa, India, China, much of S America, etc.,
Oil-rich Countries	Libya, Kuwait, Venezuela, etc.

Teachers may find it useful to remember the following points:

- Candidates should be able to locate the examples they quote by means of simple sketch maps. These should identify at least three features which would help a reader to locate the area, for example a river, a town and a relief feature. Wherever possible, some indication of scale should be given. Annotation of maps and diagrams is also to be encouraged. Some questions may require annotated maps **with no separate text**, i.e. all the relevant details should be identified on the map itself. This is regarded as a valuable geographical skill.

- Candidates should be able to draw pie charts, bar graphs, line graphs and scatter graphs, best-fit lines, population pyramids, and be able to calculate area, the density of population, and natural growth rates of population.

- Candidates should be able to perform the following simple cartographical skills:

  an understanding of scale, the meaning of Representative Fractions, be able to give and make use of accurate Grid References, the recognition of direction, the interpretation of slope, and be able to draw simple cross sections.

Commentary on the Syllabus

Section A - Geomorphology

This remains similar to the old syllabus, although the study of glaciation is no longer required. However, the interaction of the physical environment and human activity is now an important aspect. Candidates should be able to quote actual examples (whether local or not) and, where appropriate, illustrate them with sketch maps and diagrams.

Section B - Hydrology, Meteorology and Climate

(i) Water has become of major importance in the world, especially since candidates for this examination often live in areas where water, either too little or too much, dominates human and economic activity. It is hoped that, wherever possible, candidates will be encouraged to observe aspects of their local hydrology, allowing centres to build up records to be used in future teaching. An outline of these aspects of hydrology which may be new to teachers is appended.

(ii) This remains unchanged apart from the addition of heat islands. See later note.

(iii) An outline of the factors affecting climate generally is required here, but climatic details is required of only five types. For these, candidates should be able to describe **and** explain their world distribution; describe with accurate detail the main features of their seasonal temperatures, rainfall total and distribution.

(iv) The influence of both weather variation and of normal climate on human activities should be studied with particular reference to the five climates stated in (iii), **but also where appropriate in other climatic regions**. For example, the general climatic implications of continentality, relief, ocean currents, etc., should be understood.

Section C - Vegetation and Soils

Apart from a reduction in the number of natural vegetation zones to be studied, this has changed little from the previous syllabus.

Section D - Economic Activity

With only a few variations, this is mostly unchanged from the previous syllabus. Some points to note are:

(i) The inclusion of peasant cash cropping, a fast-growing feature in many less developed countries. This could be studied in the context of for example, cocoa production in Ghana, or vegetable production in Singapore.

(ii) Industry - the case studies of the stated industries may be drawn from any part of the world, though studies of industrial decline can be best pursued in the older (more-advanced) industrial countries.

Quaternary Industry, i.e. high technology industries, banking, financial services, etc., is now recognised as distinct from tertiary services.

Another industrial group, called Informal Industry, is also now recognised. A growing feature of cities world-wide is the provision of services by self-employed groups or individuals working from home or on the streets. sometimes making components for more organised manufacturing units. These contribute substantial amounts to the local and national economy. It is suggested that teachers look for examples in their own area.

Section E - Population and Settlement

Candidates should be able to interpret population pyramids in terms of the structure in the particular year represented, but should also be able to comment on past and possible future trends.

It is important that, in studying simple models of urban structure, their actual relevance to real cities should be noted. Those centres in urban areas could certainly test models against their towns (see notes on Fieldwork).

Case studies of attempts to improve housing in urban areas, and how to deal with the problems of squatter areas should be studied, preferably in the context of the candidates' own country.

Section F - Development and Human Welfare

Candidates should be aware of possible ways of quantifying and assessing standards of living. Linked to aspects of trade (see Economic Activity) should be relationships between countries and the benefit and misuse of overseas aid. International agencies, in addition to the World Bank, should include the relief and development agencies such as OXFAM, UNICEF, Save the Children, etc. Again, examples of the work of such agencies may be found in many countries, and information may be obtained from their local offices.

Section G - The Environment

Here again, local examples may have greater relevance to students than ones taken from foreign areas. Candidates should also be aware that in a number of HICs, National Parks differ from those elsewhere in **not** being wild life conservation areas.

Hydrology

Hydrology is the study of water and its continual movement through the hydrological cycle. The hydrological cycle is a global circulation of water; water is taken up from the sea, into the air and returned to the land, ready to follow the cycle once more. Rivers occupy the land based part of this cycle. (Fig 1)

The area from which each river collects its water is known as the DRAINAGE BASIN; this is of particular importance concerning the study of hydrology. The hydrology of a drainage basin can be shown as a SYSTEM, where the components are linked together by flows. The SYSTEMS DIAGRAM (Fig 2) also shows the INPUTS and OUTPUTS.

Water flows into the drainage basin, through it and finally out of the basin. Additionally, water may be held within the system as a STORE. This may be in the form of a lake, in the soil or in other ways. The FLOWS and STORES of the drainage basin system are very important in determining how likely a river is to flood.

Within the hydrological cycle there may be places where there is human intervention. People might MANAGE water for their own benefit as a RESOURCE or they may seek to escape its extremes when it becomes a HAZARD. Agricultural development or industrial activity may lead to water pollution, although this is normally an unintentional consequence of human intervention. For example, surface run off from cultivated land frequently carries with it chemicals such as fertilisers, insecticides and manures. Factories also discharge waste materials into rivers. Treated sewage may also be pumped into rivers from sewage farms. River pollution can sometimes become an international problem if a river passes through several countries. Indeed, river pollutants are sometimes progressively moved downstream, from one country to another.

STREAMFLOW DISCHARGE is the amount of water in a river flowing past a particular point, at a particular time. By examining the records of discharge of a river for previous years, it is possible to estimate how frequently a particular discharge is likely to occur. This is known as the RECURRENCE INTERVAL. Hence, reference to a ten year flood or a fifty year flood, indicates the frequency with which a specific flood height might be expected. However, it is not possible to forecast exactly when a flood might occur.

Planners and engineers constantly face problems as to whether areas at risk from flooding ought to be protected against a five year flood, a ten year flood or possibly more. If a large flood has not been experienced in an area for some time, people tend to forget about the damage floods can cause and underestimate the extent of the hazard. It is possible to

reduce the risk of flooding, though to do so on a large scale requires large amounts of capital and technical expertise. Sometimes this is carried out as part of a multipurpose water control scheme. Flood protection measures include building dams, straightening levees and encasing rivers in straight concrete channels. Flood abatement tackles the problem at the source by aiming to slow down the rate at which water from storms reaches the river channel. Afforestation, for example, both slows down the rate of surface run off and, in addition, increases evapotranspiration.

A STORM HYDROGRAPH is a means of showing the discharge of a river over a short period of time. In particular, it shows how the discharge to a river responds to an individual storm. Fig 3 shows such a storm hydrograph. When the storm begins the river responds in a minor ways, for although some precipitation falls directly into the river channel, most falls elsewhere in the basin and takes time to reach the channel. However, once the surface run off and later the through flow reach the river there is a marked increase in discharge. This is shown by the RISING LIMB. The period between the maximum precipitation and the PEAK DISCHARGE is called the TIME LAG. The RECEDING LIMB shows where the discharge is falling; this is normally less steep than the rising limb. If the BANKFULL DISCHARGE level is exceeded, the surrounding ground will become flooded.

In some drainage basins the discharge rises very quickly following a storm and regularly brings about flooding. Rivers in other basins do not experience such a rapid rise in discharge and are less likely to flood. The two hydrographs shown in Fig 4 show two quite different responses to a storm.

A number of factors influence the way in which a river responds to a storm. For example:

(a) In a steep sided valley water will reach the river more quickly than in a gently sloping lowland area.

(b) Permeable rocks allow the rapid infiltration of water and consequently after only limited surface run off. Impermeable rocks produce much more surface water and streams.

(c) Flooding is more likely to occur in deforested areas than in areas of afforestation. Trees take up water from the soil through roots and consequently reduce through flow.

(d) The development of urban areas often increases the possibility of flooding owing to the large areas of concrete through which water cannot infiltrate. Drains carry the water away quickly and efficiently to the nearest river.

Each drainage basin is a unique combination of rock types, vegetation, landforms and land uses. It provides vital information about the possibility of flooding. Floods can often be predicted and people living in areas at risk can be warned in time to take necessary action.

Fig I: The hydrological Cycle

Fig II: A systems Diagram. The arrows show the flows which link the components

Fig III: A storm Hydrograph

Fig IV: The river with the shorter time lag is more likely to flood.
Heat Islands

Microclimatology is the study of climates over small areas and includes the changes to climates resulting from the construction of large urban areas. Large cities experience different climatic conditions from those found in the surrounding countryside; they have distinctive microclimates.

Many building materials used in the construction of cities tend to be non-reflective and therefore absorb heat during the day. Dark coloured roofs, concrete surfaces, brick walls and tarmac roads all have a high THERMAL CAPACITY. They store heat during the day and release it at night. Heat is also generated in cities by car fumes, factories, central heating systems and people.

Consequently, the air over a city at night cools more slowly than over the surrounding rural areas. The relatively warmer air which rests over a city at night is known as the HEAT ISLAND. There are often temperature variations within the heat island depending on, for example, housing density, the size and location of parks and the presence of major rivers.

3. COMPLETING FIELDWORK

Introduction

It is fully appreciated that, for many centres, integrating fieldwork into the Geography syllabus presents many difficulties. Nevertheless, it is often possible with little or no specialised equipment to introduce students to basic fieldwork techniques appropriate to their local environment. Simple equipment can often be created from readily available materials, for example, lengths of rope can be knotted at one metre intervals for measuring distances, sampling squares (quadrats) can made of any half-metre sticks which are fastened at the corners, and sticks of wood one metre in length can be calibrated with permanent marker pens.

The most important points about any fieldwork investigation are that there should be:

- a clearly stated aim which is understood by all students;
- the use of methods which are appropriate to the gathering of data which will facilitate the achieving of that aim;
- an analysis of the data by appropriate methods;
- a reasoned conclusion;
- critical comment on the whole exercise.

Aims are best expressed in the form of an hypothesis or a question, for example 'Where are the limits of CBD of town X?' or 'The channel shape and depth of stream change with increasing distance downstream'. Students should be encouraged to discuss their aims and to agree on a suitable hypothesis or question. This will lead in turn to a discussion of exactly what data will be needed and therefore to the methods required to collect that data. It is important that students understand fully what they are doing and why, and that the data they collect is in a form which is capable of useful analysis. This is particularly true of the construction of a questionnaire, where questions need to be discussed fully to ensure that they are clear, inoffensive and analysable. Students also need to understand how to ensure a reasonably representative sample.

Some Suggested Topics for Investigation

Bearing in mind that centres may be limited to their immediate environment for any fieldwork investigation, the following are sub-divided into on-site (i.e. school-based), urban, and rural exemplars. These are merely suggestions to stimulate locally applicable ideas.

A. On-site Fieldwork

1. The most common of these is the collection over a period of time of accurate weather records. Some centres may have access to specialised weather instruments, but even without them, some useful work can be done. A rainwater collector can be made of any suitable container, preferably, but not essentially, wide at the top and tapering downwards, provided that it is always replaced in the same position and that the water is measured carefully in the same way each time. When such records have been kept for a number of years, students can compare their results with previous years and answer the question 'How did rainfall in (month/year) compare with the previous 5/10 years?'.

2. A micro-climate study, exploring how and why temperature varies around the school buildings. Such an investigation requires thermometers, a simple plan of the school and readings taken at regular intervals over a number of days, to be correlated to general weather conditions observed by eye (sun, cloud, etc.).

3. In larger schools, it may be possible to undertake a traffic study to identify the busiest part of the school and (possibly) to take recommendations to ease congestion.

4. A study to identify the catchment area of the school may be possible. A map of the potential catchment area may be constructed with the aid of data provided by all the pupils in the school.

5. A study to answer the question 'Is the size of family decreasing in area X?' may be undertaken. This requires data from as many pupils as possible on the size of family going back two or three generations. The questionnaires need to be anonymous and tactfully worded.

B Urban Fieldwork

Centres in urban areas are well placed for often very useful studies which will complement many classroom studies. Some possibilities include:

1. 'Where are the limits of the CBD of town X?' This involves discussion of functions, which are essentially CBD and of how to identify where these and (possible features are a reduction in height, an increasing percentage (to be identified) of non CBD functions, etc.). It requires street maps of the centre of the town and very accurate briefing of the students to ensure uniformity of the data.

2. 'Where is the busiest part of the town', which would include the counting of both vehicles and pedestrians. Again a street map is required.

3. 'When is the peak flow of traffic?', which would involve traffic counts at regular

intervals during the day, and over a number of days.

4. 'What could be done to relieve traffic congestion?', which would be a combination of the previous two suggestions, with students' personal attempts at solutions.

5. An urban transect might be possible in order to answer a question such as 'Does town X fit the Burgess/Hoyt model of urban structure?' In such an investigation land use observation would be mapped on transect lines radiating from the town centre.

B Rural Fieldwork

1. A study of the land use round a village to answer such questions as 'Are the most intensive crops grown closest to the village?' or 'Has the introduction of a new crop resulted in improved yields and a different pattern of land use?'

2. 'Do soil profiles change with increasing height of valley slopes?'. This requires only a spade to make the profiles and paper on which to record the profiles.

3. 'Does river channel shape and depth change downstream?' Here the use of the knotted rope, metre stick, etc., comes into use, but obviously a stream of modest size and depth must be chosen.

'4. 'How does the discharge of the stream vary at different times of the year?' This involves the measurement of velocity which, combined with the channel shape and depth leads to the calculation of discharge. To measure velocity a stopwatch and some 'floats' are needed - sections cut from the core of a corn cob may be suitable. In time, students' observations in one particular year might be usefully compared with those taken in previous years in order to build up an understanding of the local hydrology. (A sample data sheet is appended).

5. An investigation could be carried out on how a transport improvement, e.g. a new road bridge, a new road, a new railway line, might affect the lives of people living in a particular village or town.

DISCHARGE DATA SHEET FOR RIVER

(1) Finding the velocity

	Time taken for float to move 10 metres (seconds)		
	Left bank	**Mid stream**	**Right bank**
1st			
2nd			
3rd			
4th			
5th			
Average			

Average time for whole channel:

_____ **seconds**

(2) Measurement of cross-sectional area

Channel width _____ **metres**

Channel depth (at 1m intervals) in centimetres

1._____ **2.**_____ **3.**_____

4._____ **5.**_____ **6.**_____

7._____ **8.**_____ **9.**_____

10._____ **11.**_____ **12.**_____

13._____ **14.**_____ **15.**_____

Average depth _____ **cms**

Average depth _____ **metres**

Cross sectional area = width _____ x average depth _____m

= _____m^2

(3) Discharge = Velocity m/sec x Cross sectional area _____ m^2 = _____ m^3/second

4. THE SPECIMEN QUESTION PAPERS

Specimen question papers were issued by the Council with copies of the new syllabus in May 1994. The Chief Examiners feel that it may be helpful to teachers if the answers to certain questions on the specimen papers were provided.

Paper 1

Qu3 (a) a - evaporation
b - precipitation
c - surface flow

Note: full sentences are **not** required for such questions

(b)(i) 1. 85 mm approx This requires reasonably accurate measurements from the correct scale
2. 6½ hours
3. 5 hours

(b)(ii) Absorption by soil and vegetation slows through-flow to the river so that the water level increases steadily after the rain has stopped.

(c)(i) Two possibilities:

Either the dry soil of the catchment area would absorb most of the water, allowing very little to reach the river, so no flood.

Or if the ground were baked hard with little vegetation, there would be rapid runoff over the surface so a rapid rise in water level.

(c)(ii) The soil would already be saturated so it would absorb very little, increasing the surface flow, so the river would rise rapidly with a much shorter lag time.

(d) **Either**
Discharge is the amount of water in a river flowing past a particular point, at a particular time. It is, therefore, the speed of the river measured in metres per second multiplied by the cross-sectional area of the river, measured in square metres. This gives the volume of cubic metres per second of CUMECS (m^3/sec).

1. Stretch a tape across the river to measure its width. Record the width in metres on the DISCHARGE DATA SHEET;

2. Using a metre rule, measure the depth of the river in centimetres at a number of equidistant points, e.g. every 0.5 metres;
3. Calculate the average depth of the river and record this on the data sheet;

4. Calculate the cross sectional area which is the width x the average depth;

5. Use a float to measure the average velocity of the river over a distance of about 20 metres. An orange or a dog biscuit; these float largely beneath the surface of the water and are little affected by wind. Accurately time the float over the measured distance at least three times to calculate the average velocity. It may be necessary to calculate the average velocity both in the centre of the stream and also towards the banks.

Or This requires a **case study** of a river which has normally had floods, but over which some measure of control has been attempted by, for example, the construction of a dam, artificial levees. Where possible a river within the candidates' own area or region should be chosen.

Qu6 (a)(i) (1) Allow 5.2 - 5.7 (1 mark)
(2) Allow 4.3 - 4.5 (1 mark)
(3) Allow 4.5 - 5.0 (1 mark)

(a)(ii) Level increased (1 mark). Statistical evidence (1 mark). Award 1 mark if answer states that a falling value is a sign of increased acidity. Area covered more extensive (1 mark). Allow further marks for amplification. Award up to 4½ marks for reference to named countries and/or areas.

(a)(iii) Prevailing winds from south-west (1 mark). Award a further mark for amplification of prevailing wind. Pass over UK and subsequently over northern Europe (1 mark). Consequently the pollution produced over the UK is carried to northern Europe (1 mark) - especially Scandinavian countries (1 mark).

(a)(iv) Accept any of the following observations:

Acidity of lakes - kills fish
Acidity of soils - affects crop production
Adversely affects water supplies
Weathers stone buildings
Adverse effect on health, e.g. bronchitis, lung cancer, etc.

Award 1 mark for each correct observation; 2 marks for each of physical and human. If a single observation illustrates two consequences award 2 marks.

(b)(i) The greenhouse effect is the accumulation of high levels of carbon dioxide in the atmosphere which absorbs heat from the sun but prevents its radiation back into space, thereby contributing to global warming.

(b)(ii) The wealthy representative of the developed countries is accusing the peasant of contributing to the greenhouse effect by felling the trees, regardless of the fact that his exhaust gases are equally dangerous. This shows the hypocritical attitude of many in the Developed World who ignore the damage their high consumption of resources does to the environment.

(b)(iii) While the Greenhouse effect is primarily the cause of global warming, the loss of the ozone layer allows dangerous radiation, normally filtered out by the ozone, to reach the earth's surface, causing an increase in cases of skin cancer. This is particularly true of Australia where increased protection against the effects of the sun is the subject of a massive advertising campaign .

Paper 2

Qu1 (a)(i) Density of population = $\frac{\text{Total population}}{\text{Area}}$

(a)(ii) 1 G
2 C

(a)(iii) GNP per capita is the total value of goods and services produced by the country divided by the total population. It is an indication of the country's overall wealth and level of development.

(a)(iv) Generally the natural growth rates of population (i.e. Birth rate minus death rate) is higher the lower the GNP. Thus there is a big difference between Country A with its high GNP and lowest NGR and Country F with its very low GNP and rapid population growth. Country G differs in having a very high BR and exceptionally lower DR in relation to its GNP.

(b) *This is an example of a question which can really only be answered well by reference to case studies, preferably drawn from within the candidate's own country or region. Indeed, few marks would be earned by vague, unidentified accounts couched in terms of 'they should.....'.*

Marks up to 6 in each case could easily be earned by, for example, locating the place in question, e.g., 'the state of Kerala in S W India, where advice on family planning and contraceptives has been made easily available with the result that even in rural area couples often have no more than one or two children, whom they can afford to send to school. Such children can then get better paid jobs or have the knowledge to improve farming methods, increasing crop yields and raising the family income.

Qu5 (a)(i) In the 8 years, farm size has doubled while income has trebled. The farm grows a smaller range of crops in fewer, therefore larger fields, and the man power has been reduced. Wheat yields have more than doubled.

(a)(ii) 1. There are few fields because in order to maximise the use of machinery, hedges and fences have been removed making larger fields in which large machinery can move more easily and increasing the usable area of the field formerly occupied by the boundary fences and hedges.

2. Wheat yields have increased a lot partly because of heavy applications of fertilizers, but also because of the use of new higher yielding varieties.

(b) Although the small farms involve much more labour they are more efficient in that their yields are higher and their costs lower. The government might abandon the idea of grouping the farms together, on the grounds that the small farms are demonstrably more efficient in producing more at lower costs than larger ones.

(c) **Either** A case study needed, preferably one known to the candidates, or within their own country. The location should be clearly identified, and sufficient detail given to show what the improvements have been and how effective. Note that an exemplar from a less developed country is specified.

Or This requires an understanding of the problems of over production facing many advanced countries together with some detail of such schemes as quotas, set aside, farm diversification, etc.

Qu 7(a)(i) A simple bar **or** line graph would suffice, provided both axes were properly labelled.

(a)(ii) Between 76 & 86 the number of tourists almost doubled. Increased affluence, longer holidays and the increasing ease and relative cheapness of air travel were the main reasons. People from highly developed countries were travelling further in search of 'sun, sea and sand'.

(a)(iii) The figures are for an island in the Indian Ocean. During the Gulf War in 91 tourists were reluctant to travel both by air and to an area relatively close to the troubled area.

(b)(i) The welcome given to such rapid growth is because it quickly increases foreign revenue, often with little investment by the country itself. Foreign companies bring in the necessary capital, build the hotels etc., and the tourists quickly begin to make a substantial contribution to the country's foreign earnings to be spent on imports and other developments.

(b)(ii) Opposition comes from those who object the often unsuitable architectures of the hotels, the impact of tourism on an unprepared environment (water supplies, sewage disposal etc.) and from those who feel that the tourists despoil the country's life, especially theft from tourists, the spread of diseases (often sexually transmitted), the growth of prostitution, the need to import goods only for the tourists, the abandoning of traditional agriculture to supply hotels.

(c) Village based tourism encourages small groups of tourists to stay in simple local accommodation and experience the more-or-less normal life of the people with few luxuries. It is often linked with an interest in the natural environment, as in Belize, Central America, where studies of the local rainforest are linked with stays in local villages. The advantages are that it has little damaging influence on either the environment or the culture.