edexcel

The

EDEXCEL CERTIFICATE Geography

Specification and Sample Assessment Material

Edexcel Level 1/Level 2 Certificate in Geography (KGE0)

First teaching September 2012
First examination June 2014

ALWAYS LEARNING

PEARSON

Pearson Education Ltd is one of the UK's largest awarding organisations, offering academic and vocational qualifications and testing to schools, colleges, employers and other places of learning, both in the UK and internationally. Qualifications offered include GCSE, AS and A Level, NVQ and our BTEC suite of vocational qualifications, ranging from Entry Level to BTEC Higher National Diplomas. Pearson Education Ltd administers Edexcel Certificate examinations.

Through initiatives such as onscreen marking and administration, Pearson is leading the way in using technology to modernise educational assessment, and to support teachers and learners.

Authorised by Martin Stretton
Prepared by Matt Gregory
Publications code: EC030048

edexcel

Level 1/Level 2 Certificate

Geography (KGE0)

Specification

First teaching September 2012

First examination June 2014

ALWAYS LEARNING

PEARSON

Introduction

The Edexcel Level 1/Level 2 Certificate in Geography is designed for use in schools and colleges. It is part of a suite of qualifications offered by Edexcel.

Key subject aims

The Edexcel Level 1/Level 2 Certificate in Geography enables students to:

- apply and build on the fundamental building blocks of geographical knowledge
- actively engage in the process of geographical enquiry to develop as effective and independent learners and as critical and reflective thinkers with enquiring minds
- develop their knowledge and understanding of geographical concepts and appreciate the relevance of these concepts to our changing world
- develop a framework of spatial awareness in which to appreciate the importance of the location of places and environments from a local to global scale
- appreciate that people have different views of, and attitudes to, the world, its environments and its issues
- develop and apply practical geographical enquiry skills
- undertake geographical investigations that include both primary and secondary data collection and presentation, analysis and drawing conclusions
- develop and apply their learning to the real world through fieldwork
- develop their awareness of global issues and recognise the need for a sustainable future.

This Edexcel Certificate in Geography has 120–140 guided learning hours (GLH).

Key features and benefits of the qualification

- It adds an international dimension to the study of geography.
- It encourages practical enquiry skills that underpin knowledge and understanding of geography.
- Assessment is through one externally-assessed examination.
- It provides a solid basis for progression to GCE AS and Advanced qualifications in geography, or equivalent qualifications such as BTEC Nationals in Travel and Tourism and land-based subjects.

Contents

Specification at a glance

Overview of content

The Level 1/Level 2 Certificate has four sections. Sections A, B and D contain optional topics and Section C draws on the practical geographical enquiry skills that underpin the study of Sections A and B.

Section A – The Natural Environment

Complete **two** of the three topics:

1 River environments

2 Coastal environments

3 Hazardous environments

Section B – People and their Environments

Complete **two** of the three topics:

4 Economic activity and energy

5 Ecosystems and rural environments

6 Urban environments

Section C – Practical Geographical Enquiry

The development of practical geographical enquiry skills related to the investigation of each **selected** topic from Sections A and B.

Section D – Global Issues

Complete **one** of the three topics:

7 Fragile environments

8 Globalisation and migration

9 Development and human welfare.

Examination Paper **Paper code: KGE0/01**

- Externally-assessed through a 3-hour examination paper, set and marked by Edexcel.
- Availability: June series.
- First assessment: June 2014.
- The single tier of entry will contain a variety of question types, such as multiple-choice questions, short and extended answer questions, graphical and data questions and practical enquiry questions.
- The total number of marks available is 180.
- The paper will be a question and answer booklet and candidates have to answer:
  - two questions from a choice of three in Section A
  - two questions from a choice of three in Section B

- two questions; one question from a choice of two related to Topics 1 to 3 and one question from a choice of two related to Topics 4 to 6 in Section C
- one question from a choice of three in Section D.

- Each question in Sections A, B and C is worth 25 marks; each question in Section D is worth 30 marks.

Qualification content

National Qualifications Framework (NQF) criteria

This qualification complies with the requirements of the common criteria prescribed by the regulatory authorities.

Knowledge and understanding

The specification content is set out in detail in Topics 1 to 9. The content of this qualification has taken the following points into account, that:

- coverage should touch the main subject areas that are appropriate at this level – the natural environment, resources and production, population and settlement – as well as the related topics of globalisation, human welfare and sustainability
- emphasis should be placed on the relationship between people and the environment
- geography should be recognised as a dynamic discipline in continuous change
- content should be specified in such a way that students can explore the geography of their own countries
- case studies are used to exemplify key ideas
- students are required to undertake fieldwork and other practical exercises to underpin knowledge and understanding, as well as to illustrate the key ideas
- students should become competent in the use of a range of skills and techniques.

Teachers have the freedom to construct their own teaching programme based on this specification, but any programme must fulfil the following requirements:

- the study of a range of themes which, taken together, involve work at different spatial scales (small (local), regional, national, international, global), in different parts of the world and in different types of environment
- the development of skills used in geographical enquiry, including fieldwork investigation.

The content in detail

The specification content pages for each topic are divided into the following sections.

Key ideas

Each topic is divided into a number of key ideas which give a focus to the content.

Essential content

Each key idea is broken down into a number of bulleted content points which specify what must be studied. Examination questions will be based on this content.

Scale

The scale column indicates the spatial scale at which the content should be covered, where appropriate.

Required exemplification

This column indicates case studies that illustrate and support some of the essential content. It is important that the bulleted content should be studied in the context of real places. Students will be expected to demonstrate accurate knowledge of location in the examination.

Fieldwork opportunities and practical skills

This column indicates recommended exercises involving the collection and analysis of primary and secondary data. An essential part of this practical work is using a range of geographical enquiry skills. This practical learning is an integral part of the questions relating to Sections A and B of the specification content. Fieldwork opportunities are identified with an (F) and practical skills are identified with a (P).

Abbreviations used

In the topics the following abbreviations have been used:

BRICS – Brazil, Russia, India, China, South Africa

CBD – Central Business District

GDP – Gross Domestic Product

GNI – Gross National Income

HDI – Human Development Index

HIC – High Income Country

HYV – High Yielding Variety

LIC – Low Income Country

MIC – Medium Income Country

NIC – Newly Industrialised Country

TNC – Transnational Company

Examination Paper

Overview of paper

Section A – The Natural Environment

Candidates are asked to complete two out of three questions based on the three topics:

1 River environments

2 Coastal environments

3 Hazardous environments.

Section B – People and their Environments

Candidates asked to complete two out of three questions based on the three topics:

4 Economic activity and energy

5 Ecosystems and rural environments

6 Urban environments.

Section C – Practical Geographical Enquiry

Candidates asked to complete one out of two questions related to Section A and one out of two questions related to Section B.

Section D – Global Issues

Candidates asked to complete one question drawn from one of the three topics:

7 Fragile environments

8 Globalisation and migration

9 Development and human welfare.

Overview of assessment

- The assessment of this qualification is through a 3-hour examination paper, set and marked by Edexcel.
- The single tier of entry will contain a variety of question types, such as multiple-choice questions, short and extended answer questions, graphical and data questions and fieldwork questions.
- The total number of marks available is 180.
- The paper will be a question and answer booklet and students have to answer:
  - two questions from a choice of three in Section A
  - two questions from a choice of three in Section B
  - two questions; one question from a choice of two related to Topics 1 to 3 and one question from a choice of two related to Topics 4 to 6 in Section C
  - one question from a choice of three in Section D.
- Each question in Sections A to C is worth 25 marks; each question in Section D is worth 30 marks.

Section A – The Natural Environment

Topic 1 – River environments

Key ideas	Essential content	Scale	Required case studies	Recommended fieldwork opportunities (F) and practical skills (P)
The world's water supply is contained within a closed system – the hydrological cycle. Water is transferred between its various stores.	• The hydrological cycle: characteristics, stores and transfers. • Features of a drainage basin, including watershed and channel network. • The hydrograph and river regimes: factors affecting them (precipitation, temperature, land use, water abstraction, dams).	Global and small (local)	1 Case study of the physical features of a drainage basin.	Channel network mapping (P).
Running water has a significant influence on the development of landforms.	• Processes: weathering and mass movement; erosion and deposition. Factors affecting these processes (climate, stream velocity, slope, geology). • River channel changes downstream and the formation of valleys, interlocking spurs, waterfalls, meanders, oxbow lakes, flood plains and levees.	Small (local)		Investigating channel characteristics (F). Annotated sketches based on photographs (P).
Water is vital to people and varies in availability and therefore needs careful management.	• The uses of water: agriculture, industry, human hygiene and leisure. The demand for and supply of water: areas of water shortage and water surplus. • Reasons for variations in water quality. Sources of pollution (sewage, industrial waste, agriculture). The storage and supply of clean water (dams and reservoirs; pipelines; treatment works). • Flooding: causes (intensity of rainfall, snowmelt, steep slopes, impermeable surfaces, human activities) and control.	National and small (local)	2 Case study of the rising demand for water in one country. 3 Case study of a water storage project to include its construction, management and impacts.	Investigating water quality (F).

Section A – The Natural Environment **Topic 2 – Coastal environments**				
Key ideas	**Essential content**	**Scale**	**Required case studies**	**Recommended fieldwork opportunities (F) and practical skills (P)**
Physical processes give rise to characteristic coastal landforms.	• The coast as a natural system and its processes: marine (wave action, erosion, deposition, longshore drift); sub-aerial (weathering, mass movement). • Landforms: erosional (headlands and bays; cliffs; wave-cut platforms; caves; arches, stacks and stumps); depositional (beaches, spits, bars). • The impact of geology, vegetation, people and sea-level changes on coasts.	Regional and small (local)	1 Case study of two geologically contrasting coastlines.	Annotated sketches based on photographs (F/P). Investigating beach profiles and sediment characteristics (F).
Distinctive ecosystems develop along particular stretches of coastline.	• Coastal ecosystems (coral reefs, mangroves, sand dunes, salt marshes) and their biodiversity. • Physical factors affecting the distributions of coastal ecosystems. • Coastal ecosystems are of value to people, but are threatened by tourism and other developments (industrialisation, agricultural practices, deforestation).	Global and small (local)	2 Case study of one coastal ecosystem.	Investigation of coastal ecosystems based on maps, photographs and other sources of information (P).
Management of both physical processes and human activities is needed to sustain coastal environments.	• Conflicts between different users of the coast and between development and conservation. • Coastal retreat and its management. Coastal protection: soft and hard engineering; conflicting views.	National, regional and small (local)	3 Case study of a retreating coastline – causes, impacts and management.	Investigating the conflicts between development and conservation on a stretch of coastline (F).

Section A – The Natural Environment **Topic 3 – Hazardous environments**				
Key ideas	**Essential content**	**Scale**	**Required case studies**	**Recommended fieldwork opportunities (F) and practical skills (P)**
Some places are more hazardous than others.	• Different types of hazard (climatic, tectonic). • The global distributions, causes and characteristics of: tropical storms, volcanoes and earthquakes. • Methods of monitoring weather conditions.	Global and regional		Mapping the global distribution of recent hazards (P). Investigating weather conditions (F).
Hazards have an impact on people and the environment.	• Identifying the scale of natural disasters and their short-term and long-term impact in countries at different levels of development. • Reasons why people continue to live in areas at risk from hazard events.	Regional and small (local)	1 A case study of the comparative impacts of a tropical storm in an LIC and an HIC.	Research into a recent hazard event (P).
Mitigating the consequences of hazards involves taking actions before, during and after the event.	• Predicting and preparing for hazards (education, early warning systems, shelters, defences). • Coping during hazards (evacuation, mitigation). • Consequences of hazards: short-term (emergency aid and disaster relief); long-term (risk assessment, rebuilding, review and adjustment, improving prediction and preparation).	National	2 Case study of the management of a tectonic event. 3 Case study of the management of either river flooding or coastal flooding.	Investigating people's views on the management of a hazard event (F).

Section B – People and their Environments

Topic 4 – Economic activity and energy

Key ideas	Essential content	Scale	Required case studies	Recommended fieldwork opportunities (F) and practical skills (P)
Economic activity sustains people and involves output from a number of different economic sectors.	• The classification of employment by sector: primary, secondary, tertiary and quaternary. • The relative importance of these economic sectors changes with development and variations between and within countries. • Informal employment: causes and characteristics.	Global, national and regional	1 A comparative study of sectoral shifts in one HIC and one LIC.	Graphical representation of employment sector data (P).
The location and growth of particular types of economic activity are influenced by a range of factors.	• Factors affecting the changing location and growth of tertiary and quaternary activities (prosperity, new technology, accessibility, transport, government policy). • Factors affecting the changing location of manufacturing (TNCs, raw materials, labour, new technology, government policy).	Regional Global	2 Case study of the factors affecting the development and location of one high-tech industry. 3 Case study of a de-industrialised area – causes, consequences and subsequent 'development'.	Investigating the location factors of factories or services (F).
Increased economic production creates a rising demand for energy and/or energy efficiency.	• The rising demand for energy and the energy gap. • The concept of 'finite' energy resources and the need for energy efficiency. • The relative merits of using renewable (eg wind, tidal and solar) versus non-renewable sources of energy (eg fossil fuels and nuclear power).	Global, national and small (local)		Research into energy sources of home country (P). Investigating people's conflicting views on the use and impacts of renewable and non-renewable energy (F).

Section B – People and their Environments **Topic 5 – Ecosystems and rural environments**				
Key ideas	**Essential content**	**Scale**	**Required case studies**	**Recommended fieldwork opportunities (F) and practical skills (P)**
Ecosystems exist at a range of scales and involve the interaction of living and non-living components.	• Biomes and their global distributions. • Ecosystems and their components: rocks; soils; climate; vegetation; fauna; key ecological processes and concepts (adaptation, succession, zonation, food webs, biodiversity). • The nature of the temperate grassland biome and its agricultural use.	Global, national and small (local)	1 Case study of an ecosystem exemplifying ecological processes.	Investigating a small-scale rural and/or coastal ecosystem (F). Annotated sketch of a soil profile from photographs, eg chernozem, podzol (P).
Farming is the principal means of livelihood in most rural environments.	• Characteristics of rural environments: employment; population size and structure; land use (including quarrying, recreation and tourism); accessibility; conservation. • The farm as a system. Different types of farming: arable/pastoral; commercial/subsistence; intensive/extensive and ways of raising agricultural production (eg irrigation, glasshouses, genetic engineering, HYVs). • Causes and consequences of food shortages and attempts to tackle these problems.	National and regional	2 Case study of a national park or protected area: management and reasons for protection. 3 Case study of two ways of raising agricultural production.	Investigating how a farm works as a system (F).
Rural environments are changing.	• LIC rural settlement changes: farming changes (eg move to cash cropping); rural-to-urban migration and its impact. • HIC rural settlement changes: new economic activities; rural depopulation; counter-urbanisation; service provision.	National, regional and small		Location of rural settlements based on map and photographic evidence (P).

Section B – People and their Environments **Topic 6 – Urban environments**				
Key ideas	**Essential content**	**Scale**	**Required case studies**	**Recommended fieldwork opportunities (F) and practical skills (P)**
A growing percentage of the world's population lives in urban areas.	• The nature of urbanisation (including suburbanisation and counter-urbanisation); the factors affecting the rate of urbanisation and the emergence of mega-cities. • The problems associated with rapid urbanisation including congestion, transport, employment, crime and environmental quality.	Global and small (local)		Mapping of the changing global distribution of mega-cities (P). Investigating change in environmental quality survey (F).
Urban environments can be characterised by the distribution of different land uses and of people of different economic status and ethnic background.	• Reasons for factors encouraging similar land uses to concentrate in particular parts of the urban area (eg locational needs, accessibility, land values). • Consequences of different land uses, eg the distribution of different socio-economic and ethnic groups, accessibility. • Implications of rapidly developing urban areas in LICs, eg shanty towns (squatter settlements, location, growth, problems and mitigating strategies including self-help).	Small (local)	1 Case study of one city to show the land use patterns and the distribution of social/ethnic groups. 2 Case studies of shanty-town management in a LIC city and the contrast with unmanaged shanty towns.	Investigating change in urban land use (F).
Changes occur as urban environments age and the needs of people change.	• The nature of, and reasons for, the changes taking place at the edge of HIC cities (eg retail complexes, business parks and industrial estates). The 'greenfield' versus 'brownfield' debate. • Areas of social deprivation and poverty in HIC cities: symptoms and locations. The changing fortunes of inner-city areas. • The roles of decision makers (planners, politicians, property developers and industrialists) in urban regeneration and rebranding.	Small	3 Case study of one named urban area in an HIC to explain how and why changes are taking place.	Annotated sketches of urban change based on the analysis of photographs and maps (P).

Section C – Practical Geographical Enquiry

Throughout their course, learners need to acquire a range of geographical skills through fieldwork and linked practical exercises.

Fieldwork is integral to the enquiry process that underpins the qualification.

The Field Studies Council (FSC) and Ofsted (2011 subject report) both support the view that good and regular fieldwork motivates learners and enhances their understanding of geography. There is also evidence that fieldwork encourages a higher than average take-up of academic qualifications.

Fieldwork and enquiry skills should include:

- **pre-fieldwork planning** – designing a fieldwork investigation, as per the qualification content
- **primary field skills** – undertaking a field investigation; the need for sampling, data collection and recording techniques
- **presentation, analysis, conclusions and evaluation skills** – using the range of data presentation techniques; analysis of data and drawing conclusions; evaluating the techniques used and the conclusions drawn.

These concepts are shown more fully in the *Suggested fieldwork opportunities* diagram on page 15.

Fieldwork and exceptional circumstances

Edexcel recognises that for some centres and/or individuals, fieldwork (specifically *first hand data collection activities*) can be constrained by:

(i) geographical location/physical nature of the region

(ii) cultural/religious exceptions

(iii) illness

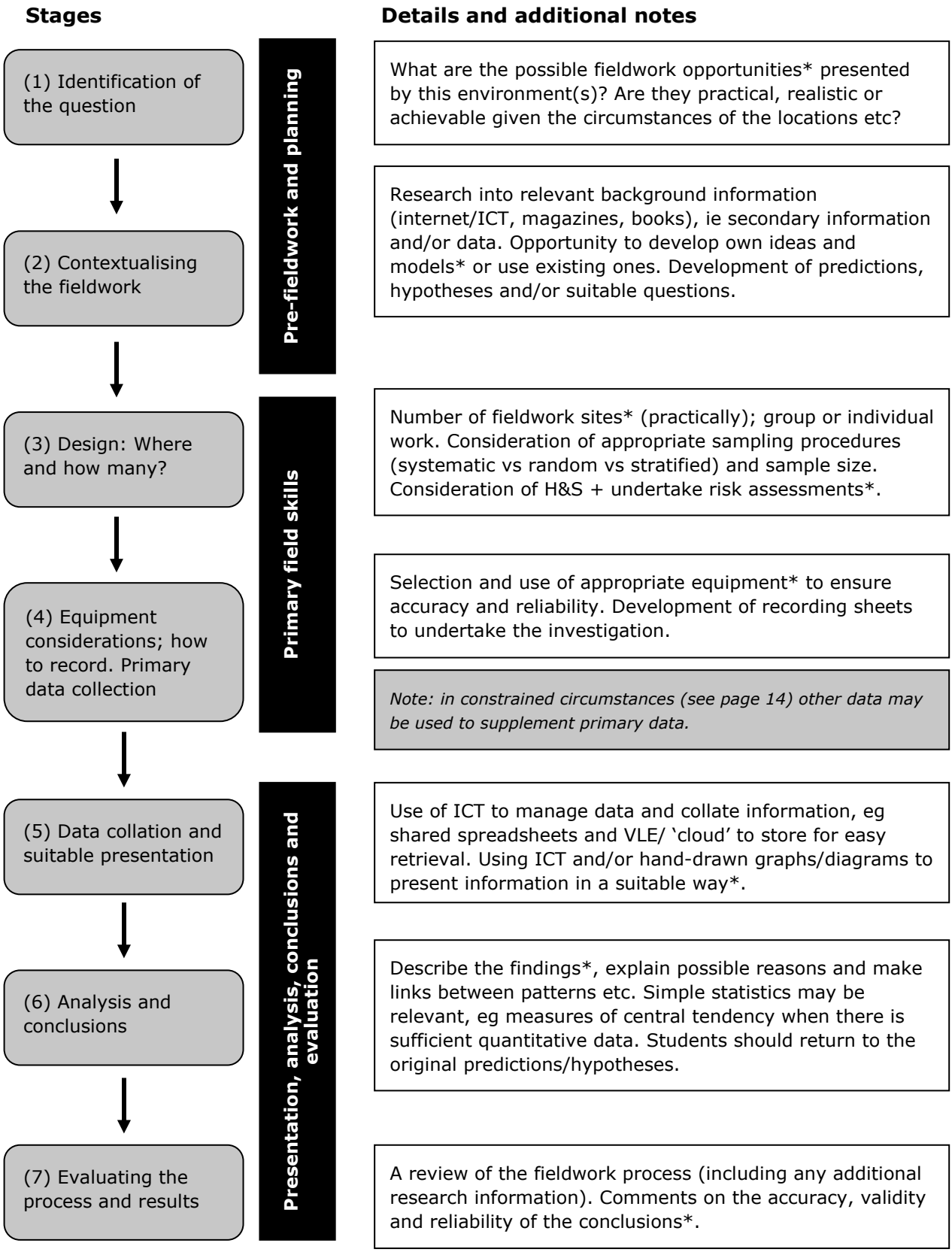
(iv) physical disability, or

(v) security.

In these rare circumstances other fieldwork data could be used instead, eg from another agency/organisation, books/magazines or from other learners who were able to collect the data themselves (including from previous cohorts). More examples of other sources of fieldwork data, including relevant websites, can be found in Edexcel Certificate in Geography teacher support materials. All other aspects of the enquiry process should *remain unchanged* for those learners (Stages 1-3 and 5-7 in the enquiry process) who have not collected their own data. These learners should work with the substitute data, eg graphing, analysis, conclusions, evaluations etc, as if it were their own.

When exceptional circumstances are employed as part of the fieldwork process, either for an individual, group or cohort, centres must justify their particular circumstances to Edexcel through contact with Edexcel's Ask the Expert Service or the Geography Subject Advisor both available from www.edexcel.com/Subjects/Geography/Pages/Default.aspx.

Practical geographical enquiry process



Notes:

a) Stages 1-3 should form part of the fieldwork planning process, before data collection

b) * Indicates that there are strong links with assessment. Section C questions will normally use unseen information but in environments that have been studied.

Health and safety in the field

All centres must comply with local and national rules, laws and good practice relating to health and safety. For example, the requirements of relevant legislation and codes of practice, including the *Department for Education Health and Safety Guidance for Schools and Health and Safety Executive – School Trips and Outdoor Learning Activities.*

Centres must ensure safe working is an inherent part of practical learning, for example learners know and understand the importance of ensuring their own safety and that of others. This could involve learners developing risk assessments as part of the preparation for fieldwork (Stage 3 – Design), for example by using Google Maps and Google StreetView to assess likely hazards and/or risk.

Health and safety learning must include the concepts of:

- *Hazard* = the danger that could reasonably be expected to cause harm, eg contact with slippery rocks next to a stream
- *Impact/severity* = how someone might be harmed
- *Risk* = the chance that someone will be harmed by a particular hazard, eg a fall, slip or trip.

For example, a *Risk Rating* can be developed, based on likelihood and severity (or worst case outcome); whilst working in a river the likelihood of slipping on wet rocks may be described as 'infrequent' (a score of 3/5), whilst the severity could be 'injury' (a score of 3/5). These two together give a risk-rating score of 9/25 (3 x 3/5 x 5), which would indicate that a control should be in place to minimise the chance of injury through slipping.

Additional support on this aspect of the specification is available in the Edexcel Certificate in Geography teacher support materials.

Assessment of fieldwork skills

Fieldwork opportunities are assessed in Section C of the examination paper. Students must be able to demonstrate fieldwork skills and competencies related to each of the selected topics.

It is recommended that students undertake a minimum of two fieldwork opportunities per selected topic (a total of eight fieldwork opportunities).

In the examination, questions may be asked on any given four of the six topics from Sections A and B: two from Section A and two from Section B. Candidates will *select two questions* which will be based around the enquiry process; one from Section A and one from Section B.

As part of – and in addition to – undertaking the geographical enquiry, students should acquire and be able to apply the following skills:

Practical skills

- **graphical skills** – compiling graphs and flow lines; using proportional symbols; annotating maps; diagrams and photographs
- **map skills** – with particular reference to maps (including digital maps): using grid references; understanding scales; recognising symbols; identifying landforms and human features of the landscape

- **photo-interpretation skills** – reading vertical and oblique aerial photographs and satellite images, including GIS
- **sketching skills** – communicating ideas through simple sketch maps and field sketches
- **spatial awareness** – identifying the relative locations and relationships between features.

Cognitive enquiry skills

- **analysis of findings** – reviewing and interpreting quantitative and qualitative information using appropriate media
- **use of statistical skills** – simple descriptive statistics, such as lines of best fit, means, medians, modes etc
- **conflict resolution skills** – identifying the views of interested people (stakeholders), recognising that stakeholders may have strongly different attitudes and feelings towards a particular issue
- **evaluation of findings** – appraisal and review of data and information, to see if these are accurate, suitable for the purpose or misleading and unreliable.

Suggested fieldwork opportunities

	Topic	Suggested fieldwork opportunities
SECTION A	1 River environments	Measuring water quality Measuring channel characteristics
	2 Coastal environments	Measuring beach profiles and sediment characteristics Investigating the conflicts between development and conservation on a stretch of coastline
	3 Hazardous environments	Measuring and recording weather data Investigating people's views on the management of a hazard event (river flooding, coastal retreat, tropical storms or tectonic events)
SECTION B	4 Economic activity and energy	Investigating the location factors of factories or services Investigating people's conflicting views on the use and impacts of renewable and non-renewable energy
	5 Ecosystems and rural environments	Investigating a small-scale ecosystem or rural aid project Investigating how a farm works as a system
	6 Urban environments	Investigating change in environmental quality survey Investigating change in land use

Section D – Global Issues

Topic 7 – Fragile environments

Key ideas	Essential content	Scale	Required case studies
Environmental abuse has serious consequences. Its causes need to be tackled to ensure a more sustainable future.	• The fragile nature of environments; the concept of sustainability. • Causes of soil erosion and desertification: drought; population pressure; fuel supply; overgrazing; migration. • Consequences (reduced agricultural output; malnutrition; famine; refugees) and management of soil erosion.	Regional	1 Case study of an area affected by desertification, including ways to alleviate soil erosion.
	• Causes of deforestation: commercial timber extraction; agriculture; mining; transport; settlement. • Consequences: loss of biodiversity; contribution to global warming; economic development. • Managing rainforests in a sustainable way (agro-forestry); the need for international cooperation.	Global and regional	2 Case study of an area of threatened tropical rainforest: causes, consequences and management.
	• Global warming and climate change debate: human causes, including deforestation; use of fossil fuels; air pollution; agricultural change; natural causes, including orbital changes, volcanic activity and solar output. • Consequences: rising sea levels; more hazards; ecosystem changes; new employment opportunities; changing settlement patterns; health and wellbeing, including food supply • Managing the causes (anti-pollution legislation, alternative energy sources, international cooperation) and adapting to the consequences of global warming and climate change.	Global and national	3 Case study of the threats posed by global warming and climate change to one country: consequences and management. 4 Case study of international attempts to tackle the problems of global warming and climate change.

Section D – Global Issues **Topic 8 – Globalisation and migration**			
Key ideas	**Essential content**	**Scale**	**Required case studies**
Globalisation is making the nations of the world increasingly interdependent. Major movements of people are both a cause and a consequence of this interdependence.	• The rise of the global economy (growth of production and commodity chains) and the factors encouraging it (trade, foreign investment, aid, labour, modern transport and information technologies). • The global shift in manufacturing and the reasons for this (labour costs, resources, profiteering). • TNCs: organisation; role as key players in the global economy; benefits and costs to countries hosting TNCs.	Global, national and small	1 Case study of India and China's changing role in the global economy: reasons and consequences. 2 Case study of the global operations of a TNC or a TNC's operations in one LIC.
	• The growth of global tourism and its causes (increased leisure, the package holiday, modern transport, marketing). • The impact of mass tourism on the environment, economy and people of destination areas. • Attempts to make tourism more sustainable (ecotourism).	Global, national and small	3 Case study of one sustainable tourism project: reasons for and nature of.
	• Migration – a component of population change; international migration; net migration. • Types of migration (voluntary versus forced); the push-pull factors affecting migration. • Managing migration – refugee and asylum-seeker issues: the case for controlling migration flows.	Global, national and small	4 Case study of one international migration flow: causes and consequences.

Section D – Global Issues **Topic 9 – Development and human welfare**			
Key ideas	**Essential content**	**Scale**	**Required case studies**
Differences in development and human welfare exist at a range of scales and are subject to change over time.	• The nature of development (a complex, multi-strand process) and quality of life. • Development indicators: per capita GDP/GNI; employment by sector; energy consumption; birth, death and infant mortality rates; life expectancy. • Quality of life indicators: housing; health and healthcare; access to services; diet; literacy; security and safety; political freedom; the HDI.	Global and national	
	• The classification of countries according to their level of economic development – HIC, MIC and LIC. • The changing pattern of global development, emerging economies, NIC, BRICS. • The development gap at different spatial scales (symptoms and causes) – global (North-South divide); regional (growth versus decline; core versus periphery) within countries; local (deprivation versus affluence) within urban areas.	Global, regional and small	1 Case study of regional disparities within one country: nature, causes, consequences and management.
	• Rapid population growth and its quality of life consequences (poverty, unemployment, inadequate housing and physical infrastructure). • Government policies to manage population change. • Managing disparities in development and quality of life: appropriate aid; using intermediate technology; fair and freer trade; debt relief.		2 Case study of how population changes are being managed in one country. 3 Case study of a UN aid agency project in an LIC. 4 Case study of a non-governmental aid agency project in an LIC.

Assessment

Summary table of assessment

Examination Paper	**Paper code: KGEO/01**
• Externally-assessed through a 3-hour examination paper, set and marked by Edexcel. • Availability: June series. • First assessment: June 2013. • The single tier of entry will contain a variety of question types, such as multiple-choice questions, short and extended answer questions, graphical and data questions and fieldwork questions. • The total number of marks available is 180. • The paper will be a question and answer booklet and students have to answer: – two questions from a choice of three in Section A – two questions from a choice of three in Section B – two questions; one question from a choice of two related to Topics 1 to 3 and one question from a choice of two related to Topics 4 to 6 in Section C – one question from a choice of three in Section D. • Each question in Sections A, B and C is worth 25 marks; each question in Section D is worth 30 marks.	

Assessment Objectives and weightings

		% in Level 1/ Level 2 Certificate
AO1:	recall, select, and communicate their knowledge and understanding of places, environments and concepts	10-20%
AO2:	apply their knowledge and understanding in familiar and unfamiliar contexts	45-55%
AO3:	select and use a variety of skills, techniques and technologies to investigate, analyse and evaluate questions and issues	30-40%
	TOTAL	**100%**

Entering your students for assessment

Student entry

Details of how to enter students for this qualification can be found in Edexcel's *UK Information Manual*, copies of which (in CD format) are sent to all active Edexcel centres. The information can also be found on our website: www.edexcel.com.

Forbidden combinations

It is forbidden for students to study this qualification at the same time as the Edexcel International GCSE in Geography qualification.

Classification code

Centres should be aware that students who enter for more than one qualification with the same classification code will have only one grade (the highest) counted for the purpose of the school and college performance tables.

Access arrangements and special requirements

Edexcel's policy on access arrangements and special considerations for GCE, GCSE, International GCSE, and Entry level qualifications aims to enhance access to the qualifications for students with disabilities and other difficulties without compromising the assessment of skills, knowledge, understanding or competence.

Please see the Edexcel website (www.edexcel.com) for:

- information on the Joint Council for Qualifications (JCQ) policy *Access Arrangements, Reasonable Adjustments and Special Consideration*
- forms to submit for requests for access arrangements and special considerations
- dates for submission of the forms.

Requests for access arrangements and special considerations must be addressed to:

Special Requirements
Edexcel
One90 High Holborn
London WC1V 7BH

Equality Act 2010

Please see our website (www.edexcel.com) for information on the Equality Act 2010 and Edexcel's Equality Policy in light of this, in particular about how to ensure equal and fair access to qualifications and assessment.

Assessing your students

The first assessment opportunity for Paper 1 is in the June 2014 series and in each following June series for the lifetime of the qualification.

Your student assessment opportunities

Paper	June 2014	June 2015	June 2016
Examination Paper	✓	✓	✓

Awarding and reporting

The grading, awarding and certification of this qualification will comply with the requirements of the current GCSE/GCE Code of Practice, published by the Office of Qualifications and Examinations Regulation (Ofqual). The Level 1/Level 2 Certificate in Geography qualification will be graded and certificated on an eight-grade scale from A* to G.

The first certification opportunity for the Edexcel Level 1/Level 2 Certificate in Geography will be in 2014.

Students whose level of achievement is below the minimum judged by Edexcel to be of sufficient standard to be recorded on a certificate will receive an unclassified U result.

Language of assessment

Assessment of this qualification will be available in English only. Assessment materials will be published in English only and all work submitted for examination must be produced in English.

Stretch and challenge

Students can be stretched and challenged in the assessment through the use of different assessment strategies, for example:

- a requirement for extended writing
- use of a wider range of question types to address different skills – for example open-ended questions, case studies.

Malpractice and plagiarism

For up-to-date advice on malpractice and plagiarism, please refer to the Joint Council for Qualifications (JCQ) *Suspected Malpractice in Examinations and Assessments: Policies and Procedures* document on the JCQ website, www.jcq.org.uk.

Student recruitment

Edexcel's access policy concerning recruitment to our qualifications is that:

- they must be available to anyone who is capable of reaching the required standard
- they must be free from barriers that restrict access and progression
- equal opportunities exist for all students.

Progression

This qualification supports progression to:

- BTEC Nationals in the land-based sector
- GCE in Environmental Sciences
- GCE in Geography
- GCE in Geology
- GCE in Leisure and Recreation
- GCE in Travel and Tourism
- other training or employment.

Grade descriptions

Grade A

Candidates accurately recall detailed information about places, environments and themes, across all scales, as required by the specification, and show detailed knowledge of location and geographical terminology.

Candidates thoroughly understand geographical ideas from the specification content, and apply their understanding to analyses of unfamiliar contexts. They understand the way in which a wide range of physical and human processes interact to influence the development of geographical patterns, the geographical characteristics of particular places and environments, and their interdependence. They understand complex interrelationships between people and the environment, and how considerations of sustainable development affect the planning and management of environments and resources. They evaluate the significance and effects of values and attitudes of those involved in geographical issues and in decision making about the use and management of environments.

Candidates undertake geographical enquiry, identifying relevant questions, implementing effective sequences of investigation, and collecting a range of appropriate evidence from a variety of primary and secondary sources. They use relevant skills and techniques effectively, drawing selectively on geographical ideas to interpret evidence, reaching substantiated conclusions, communicating outcomes clearly and effectively, and critically evaluating the validity and limitations of evidence and conclusions.

Grade C

Candidates accurately recall information about places, environments and themes, at a range of scales, as required by the specification, and show a broad knowledge of location and geographical terminology.

Candidates understand geographical ideas from the specification content in a variety of physical and human contexts. They understand a range of physical and human processes and their contribution to the development of geographical patterns, the geographical characteristics of particular places and environments, and their interdependence. They understand interrelationships between people and the environment and appreciate that considerations of sustainable development affect the planning and management of environments and resources. They understand the effects of the values and attitudes of those involved in geographical issues and in decision making about the use and management of environments.

Candidates undertake geographical enquiry, identifying questions or issues, suggesting appropriate sequences of investigation, collecting appropriate evidence from a variety of primary and secondary sources, using a range of relevant skills and techniques, reaching plausible conclusions, communicating outcomes, and appreciating some of the limitations of evidence and conclusions.

Grade F

Candidates can recall basic information about places, environments and themes, at more than one scale, as required by the specification, and show an elementary level of knowledge of location and geographical terminology.

Candidates can understand some simple geographical ideas in a particular context from the specification content. They understand some simple physical and human processes and recognise that they contribute to the development of geographical patterns and the geographical characteristics of places and environments. They have a simple understanding of some interrelationships between people and the environment, and the idea of sustainable development. They show some awareness of the values and attitudes of people involved in geographical issues and in decision making about the use and management of environments.

Candidates undertake geographical enquiry, collecting and recording geographical evidence from primary and secondary sources, drawing simple maps and diagrams, communicating information and outcomes by brief statements, and recognising some of the limitations of evidence.

Support and training

Edexcel support services

Edexcel has a wide range of support services to help you implement this qualification successfully.

ResultsPlus – ResultsPlus is an application launched by Edexcel to help subject teachers, senior management teams and students by providing detailed analysis of examination performance. Reports that compare performance between subjects, classes, your centre and similar centres can be generated with one click. Skills maps that show performance according to the specification topic being tested are available for some subjects. For further information about which subjects will be analysed through ResultsPlus and for information on how to access and use the service, please visit www.edexcel.com/resultsplus.

Ask the Expert – To make it easier for you to raise a query with us online, we have merged our **Ask Edexcel** and **Ask the Expert** services.

There is now one easy-to-use web query form that will allow you to ask any question about the delivery or teaching of Edexcel qualifications. You'll get a personal response, from one of our administrative or teaching experts, sent to the email address you provide.

We'll also be doing lots of work to improve the quantity and quality of information in our FAQ database where you'll be able to find answers to many questions.

Examzone – The Examzone site is aimed at students sitting external examinations and gives information on revision, advice from examiners and guidance on results, including re-marking, re-sitting and progression opportunities. Further services for students – many of which will also be of interest to parents – will be available in the near future. Links to this site can be found on the main homepage at: www.examzone.co.uk.

Training

A programme of professional development and training courses, covering various aspects of the qualification and examination, will be arranged by Edexcel. Full details can be obtained from our website: www.edexcel.com.

Textbooks and resources

The following book is recommended:

Witherick M and Milner S – *Edexcel IGCSE Geography Student/Active Book* (Pearson, 2010) ISBN 9780435016951

Appendices

Appendix 1: Wider curriculum

Signposting and development suggestions

Issue	Paper	Opportunities for development
Moral	1	Possible solutions to energy sources in the UK at a domestic level.
Ethical	1	The concept of sustainable management of the rainforests. Sustainable tourism. The management of water usage and water resource, by different countries.
Social	1	The effects of hazardous events on local people. The social causes of the growth in tourism.
Legislative	1	Legislation relating to the management of climate change.
Economic	1	The location and growth of particular types of economic activity and the factors that influence them. The way the urban environment is characterised by the distribution of different land uses and of people of different economic status and ethnic background. The global economy.
Cultural	1	The reasons why people continue to live in areas of tectonic activity. Population migration management.
Sustainable	1	The concept of sustainable management of the rainforests. Sustainable tourism.
Health and safety	1	Carrying out the fieldwork investigations following health and safety guidelines.
European initiatives	1	The responses to climate change, including EU legislation.

Appendix 2: Codes

Type of code	Use of code	Code number
National classification codes	Every qualification is assigned to a national classification code indicating the subject area to which it belongs. Centres should be aware that students who enter for more than one qualification with the same classification code will have only one grade (the highest) counted for the purpose of the school and college performance tables.	3910
National Qualifications Framework (NQF) codes	Each qualification title is allocated a National Qualifications Framework (NQF) code. The National Qualifications Framework (NQF) code is known as a Qualification Number (QN). This is the code that features in the DfE Funding Schedule, Section 96, and is to be used for all qualification funding purposes. The QN is the number that will appear on the student's final certification documentation.	The QN for the qualification in this publication is: 600/3215/7
Cash-in codes	The cash-in code is used as an entry code to aggregate the student's scores to obtain the overall grade for the qualification. Centres will need to use the entry codes only when entering students for their qualification.	KGEO
Entry codes	The entry codes are used to: • enter a student for assessment • aggregate the student's paper scores to obtain the overall grade for the qualification.	Please refer to the Edexcel *UK Information Manual*, available on our website.

5475sb181111G:\WORDPROC\LT\PD\EDEXCEL CERTIFICATE 2013\UG029610 EDEXCEL L1-L2 CERT IN GEOGRAPHY (KGEO).DOC.1-37/2

edexcel

Level 1/Level 2 Certificate

Geography (KGE0)

Sample Assessment Material

First teaching September 2012

First examination June 2014

ALWAYS LEARNING

PEARSON

Contents

General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, ie if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Write your name here

Surname	Other names

Edexcel Certificate
Level 1/Level 2

Centre Number | | | | | |

Candidate Number | | | | |

Geography

Sample Assessment Material
Time: 3 hours

Paper Reference
KGE0/01

You must have:
Calculator

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **seven** questions, **two** questions from Section A, **two** questions from Section B, **two** questions from Section C and **one** question from Section D.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*

Information

- The total mark for this paper is 180.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- The following abbreviations are used: LIC – Low Income Country, HIC – High Income Country, NIC – Newly Industrialised Country and CBD – Central Business District.

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Remember that clear English and careful presentation of your answers is important.
- Check your answers if you have time at the end.

Turn over ▶

S40994A

S 4 0 9 9 4 A 0 1 6 0

PEARSON

SECTION A: The natural environment

Answer TWO questions from this section

Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.

If you answer Question 1 put a cross in the box ☒ .

1 River environments

(a) Study Figure 1 which shows the distribution of rainfall in Spain and plans to transfer water around the country.

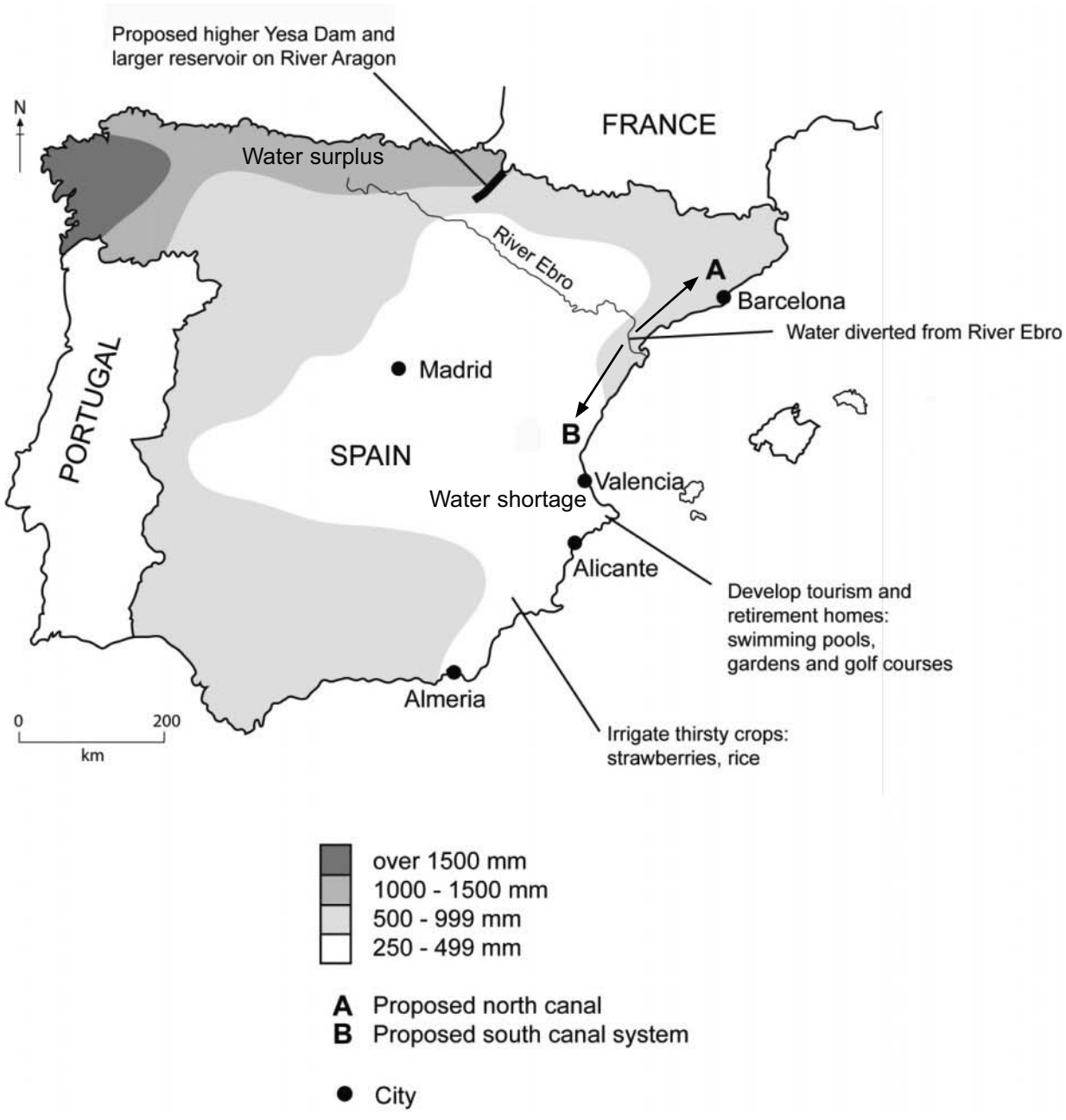


Figure 1

(i) Put a cross ☒ in the box next to the correct answer.

The wettest area of Spain is in the

(1)

- ☒ **A** centre
- ☒ **B** east
- ☒ **C** north west
- ☒ **D** south east

(ii) In which direction does the River Ebro flow?

(1)

.....

(iii) What is the purpose of Spain's plan to transfer water around the country?

(2)

.....

.....

.....

.....

(b) (i) What is a flood plain?

(2)

(ii) Levees occur along some rivers.
Describe how levees are formed. A labelled diagram may help your answer.

(4)

(c) Explain the steps involved in supplying clean water to users.

(6)

(d) For a named water storage project, discuss the different views that groups of people have about its impacts.

(9)

Named water storage project .....

(Total for Question 1 = 25 marks)

BLANK PAGE

If you answer Question 2 put a cross in the box ☒.

2 Coastal environments

(a) Study Figures 2a and 2b which show a cliff coastline undergoing change.

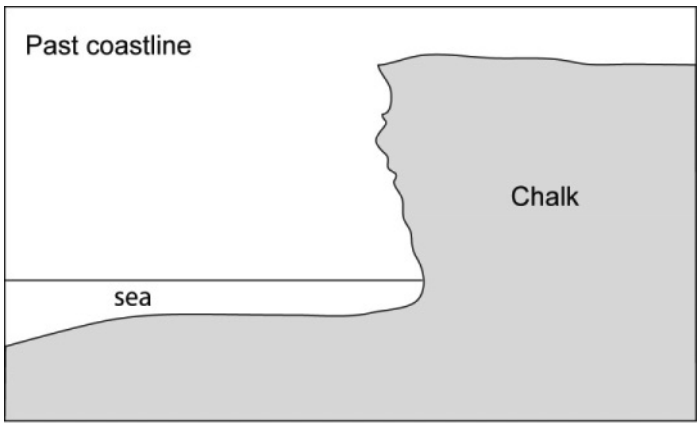


Figure 2a

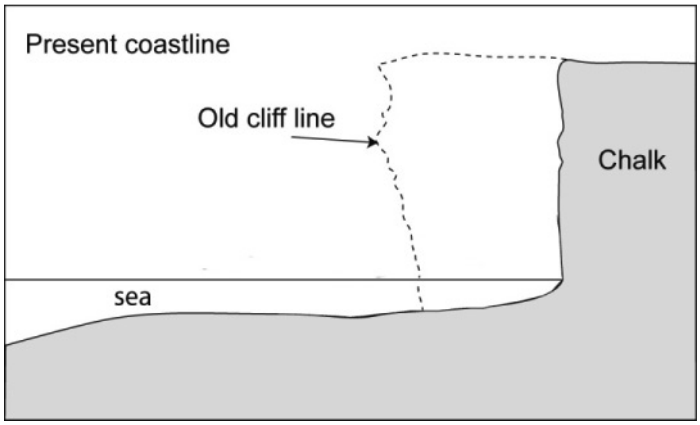


Figure 2b

(i) State **one** way in which the coastline has changed as shown in Figure 2b.

(1)

.....

(ii) Label the following features on Figure 2b:
1. cliff face
2. wave-cut platform

(2)

(iii) Name **one** process that causes cliffs to change.

(1)

.....

(b) (i) What is a beach?

(2)

(ii) Spits are formed along some coastlines.

Describe how spits are formed. A labelled diagram may help your answer.

(4)

(c) Explain why people hold different views about the use of hard engineering for coastal protection.

(6)

(d) Discuss ways in which the threats to a named coastal eco-system are being managed.

(9)

Named coastal ecosystem .....

(Total for Question 2 = 25 marks)

If you answer Question 3 put a cross in the box ☒ .

3 Hazardous environments

(a) Study Figure 3 which shows a volcanic eruption.

Figure 3

(i) Give one piece of evidence the volcano is active.

(1)

.....

(ii) Give **three** reasons why some people choose to live close to volcanoes.

(3)

1 .....

.....

2 .....

.....

3 .....

.....

(b) (i) What is a tectonic plate?

(2)

(ii) Volcanoes are formed at plate boundaries.
Describe how volcanoes are formed at constructive plate boundaries.
A labelled diagram may help your answer.

(4)

(c) Explain the causes and characteristics of tropical storms.

(6)

(d) Discuss the reasons why the impacts of tropical storms are normally more severe in LICs.

Examples will help your answer.

(9)

(Total for Question 3 = 25 marks)

TOTAL FOR SECTION A = 50 MARKS

SECTION B: People and their environments

Answer TWO questions from this section

If you answer Question 4 put a cross in the box ☒.

4 Economic activity and energy

(a) Study Figure 4 which shows a new manufacturing area.

Figure 4

(i) To which economic sector do the activities in Figure 4 belong? Put a cross in the box next to the correct answer.

(1)

☒ **A** primary

☒ **B** secondary

☒ **C** tertiary

☒ **D** quaternary

(ii) Give **three** factors that make the location, shown in figure 4, ideal for manufacturing industry.

(3)

1 .....

2 .....

3 .....

(b) (i) Define the term 'hi-tech industry'.

(2)

(ii) Outline **two** characteristics of informal employment.

(4)

1

2

(c) Explain the advantages and disadvantages of renewable sources of energy.

(6)

(d) Discuss the consequences of de-industrialisation in one named area of a HIC.

(9)

Named area .....

(Total for Question 4 = 25 marks)

BLANK PAGE

If you answer Question 5 put a cross in the box ☒ .

5 Ecosystems and rural environments

(a) Study Figure 5 which shows an incomplete diagram of a farm system.

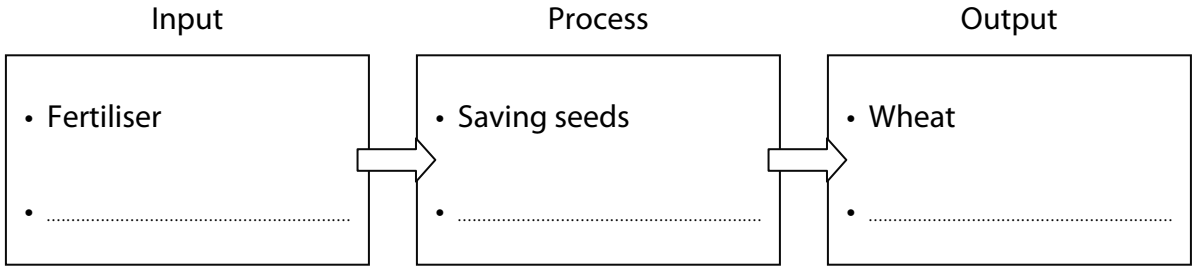


Figure 5

(i) What type of farming is shown in Figure 5?

(1)

.....

.....

(ii) Complete Figure 5 by adding another example to **each** of the three boxes.

(3)

(b) (i) What is 'subsistence' farming?

(2)

.....

.....

(ii) Outline **two** reasons why food shortages exist in some LICs.

(4)

1 .....

.....

.....

.....

2 .....

.....

.....

.....

(c) Explain some changes taking place in HIC rural settlements.

(6)

(d) For **one** named protected area, such as a national park, discuss the reasons why it is being conserved.

(9)

Named area .....

(Total for Question 5 = 25 marks)

BLANK PAGE

If you answer Question 6 put a cross in the box ☒.

6 Urban environments

(a) Study Figure 6 which shows the distribution of shanty towns in São Paulo.

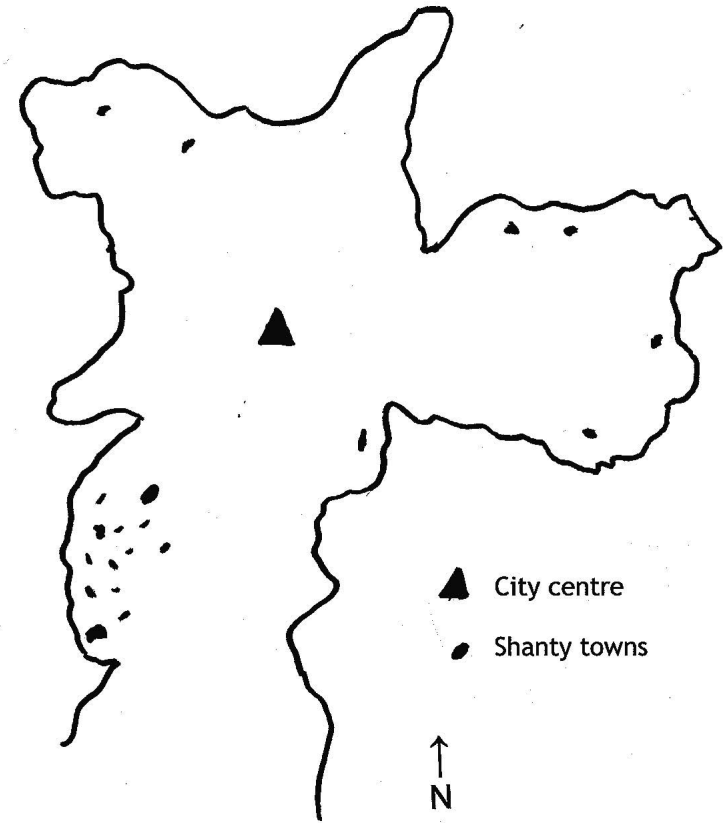


Figure 6

(i) In which direction from the city centre is the largest concentration of shanty towns? Put a cross ☒ in the box next to the correct answer.

(1)

- ☒ **A** north east
- ☒ **B** north west
- ☒ **C** south
- ☒ **D** south west

(ii) Suggest **three** reasons why the shanty towns are mainly found towards the edge of the city.

(3)

1 .....

2 .....

3 .....

(b) (i) What is a mega-city?

(2)

(ii) Outline **two** reasons why similar types of land use tend to concentrate in particular parts of an urban area.

(4)

1

2

(c) Explain why groups of people have different views on the development of greenfield sites.

(6)

(d) With reference to a named city, discuss the ways in which shanty towns are being improved.

(9)

Named city .....

(Total for Question 6 = 25 marks)

TOTAL FOR SECTION B = 50 MARKS

BLANK PAGE

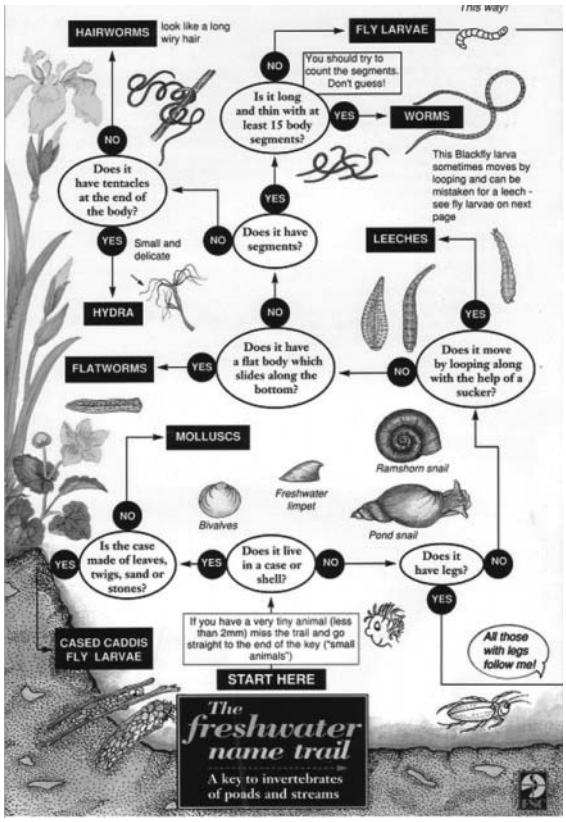
SECTION C: Practical geographical enquiry

Answer TWO questions from this section. EITHER question 7 or 8 AND EITHER question 9 OR 10.

If you answer Question 7 put a cross in the box ☒ .

7 River Environments Fieldwork

Figure 7a shows two pieces of fieldwork equipment used in the investigation of river water quality.



(Source: Field Studies Council (c))

(Source: Field Studies Council – Nettlecombe Court)

Figure 7a

(a) (i) Identify the two pieces of field equipment shown.

(2)

1 .....

2 .....

(ii) For **one** of the pieces of equipment shown, briefly describe how it could be used to collect data on water quality.

(3)

.....

.....

.....

.....

.....

(iii) What factors should be considered when choosing sites at which to use this equipment?

(3)

.....

.....

.....

.....

.....

(b) Figure 7b shows some freshwater invertebrate data recorded at five different sites along a river.

Site	Species of Freshwater Invertebrate								
	Stonefly	Flattened Mayfly	Swimming Mayfly	Burrowing Mayfly	Cased Caddis	Non-biting midge	Freshwater Shrimp	Hoglouse	Rat-tailed maggot
1	7	10	0	0	4	20	0	0	0
2	0	3	15	0	0	15	5	0	0
3	0	0	5	5	0	10	0	10	0
4	0	0	0	0	0	15	0	0	5
5	0	0	0	1	0	15	0	5	0

Figure 7b

(i) In the space below, draw a simple sketch to present and compare the results from **Site 1** and **Site 5**.

(4)

(ii) Justify your choice of data presentation technique in (b)(i).

(3)

(iii) What conclusions can be drawn about the trends in water quality along the river, based on the data in Figure 7b. You may support your answer using simple statistics.

(6)

(iv) Comment on the validity of using indicator species as a way of finding out about river water quality.

(4)

(Total for Question 7 = 25 marks)

If you answer Question 8 put a cross in the box ☒ .

8 Hazardous Environments Fieldwork

Figure 8a shows two pieces of fieldwork equipment used to measure local weather.

(Source: David Holmes / GeographySouthWest)

Figure 8a

(a) (i) Identify the two pieces of field equipment shown.

(2)

1 .....

2 .....

(ii) For **one** of the pieces of equipment shown, briefly describe how it could be used to measure local weather.

(3)

.....

.....

.....

.....

.....

(iii) What factors should be considered when choosing sites at which to use this equipment?

(3)

.....

.....

.....

.....

.....

(b) Figure 8b shows some data recorded at a school weather station (9.00 am) over a six-day period.

		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
	Units						
Cloud cover	*Oktas*	2	8	7	5	3	2
Pressure	*millibars*	996	992	988	1000	1004	1003
Temperature	*°C*	3	7	8	4	5	6
Rainfall (over 24hrs)	*mm*	0	5	7	0	0	0

Figure 8b

(i) In the space below, draw a simple sketch to show how you could present and compare the results from **temperature** and **rainfall**.

(4)

(ii) Justify your choice of data presentation technique in (b)(i).

(3)

(iii) What conclusions can be drawn about the trends in weather data, based on the information in Figure 8b? You may support your answer using simple statistics.

(6)

(iv) Comment on the validity of the measurements in Figure 8b as a way of recording the changes in weather over one week.

(4)

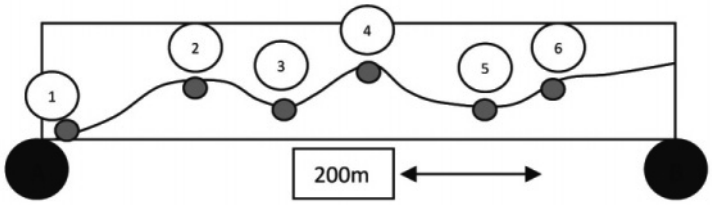
(Total for Question 8 = 25 marks)

If you answer Question 9 put a cross in the box ☒.

9 Ecosystems and Rural Environments Fieldwork

A group of students investigated the characteristics of sand dune ecosystem along a transect. Figure 9a shows the locations of where the data was collected.

GIS map of a sand dune ecosystem



A transect profile (A-B) and six sampling points

Figure 9a

(a) (i) Suggest **one** possible aim of this investigation.

(1)

(ii) Identify **two** possible risks associated with fieldwork in this type of location.

(2)

(iii) Briefly describe the some of the equipment you might use to collect data about characteristics of the sand dune ecosystem.

(3)

(iv) Why do you think the points in Figure 9a are spaced at **unequal** distances from each other?

(2)

(b) Study Figure 9b which shows some of results from the students' fieldwork transect.

	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Distance from start of transect (m)	10	190	340	440	620	720
Number of species	0	1	4	7	12	8
Marram grass (% frequency)	0	20	55	10	0	0
Soil pH	7.5	7.5	7.0	6.5	6.0	5.5

Figure 9b

(i) In the space below, draw a simple sketch to show how you could best present these results.

(4)

(ii) Justify your choice of data presentation technique in (b)(i).

(3)

(iii) What conclusions can be drawn about the trends in soil and vegetation along the transect? You may support your answer using simple statistics.

(6)

(iv) Comment on the accuracy and reliability of the data in Figure 9b.

(4)

(Total for Question 9 = 25 marks)

If you answer Question 10 put a cross in the box ☒.

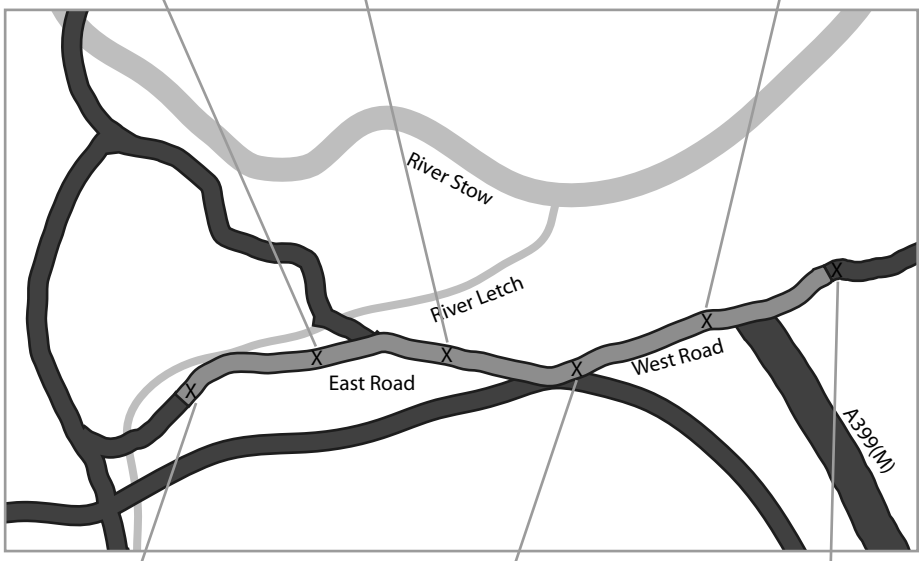
10 Urban Environments Fieldwork

A group of students investigated environmental quality at six points along an urban road. Figure 10a shows the locations of where the data was collected.

Site 2 (CBD)

Site 3 (Outer CBD)

Site 5 (Redevelopment)



Site 1 (CBD)

Site 4 (Inner city)

Site 6 (Inner suburbs)

Scale
0 500
metres

N

Key
Route taken by student
X Data collection sites
Main roads

Figure 10a

(a) (i) Suggest one possible aim of this investigation.

(1)

(ii) Identify **two** possible risks associated with fieldwork in this type of location.

(2)

(iii) Briefly describe some of the equipment (including recording sheets) you might use to collect data about urban environmental quality.

(3)

(iv) Why do you think the points in Figure 7a are spaced at **equal** distances from each other?

(2)

(b) Study Figure 10b which shows the results from the students' environmental quality survey.

	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Street cleanliness	9	7	2	5	10	6
Exterior appearance of shops and buildings	7	5	–5	2	10	9
Litter and vandalism	10	6	6	–6	10	–2
TOTALS	27	18	3	1	30	13

Note all categories have a maximum and score of +10 (very good) and a minimum of –10 (very bad)

Figure 10b

(i) In the space below, draw a simple sketch to show how you could best present these results.

(4)

(ii) Justify your choice of data presentation technique in (b)(i).

(3)

(iii) What conclusions can be drawn about the trends in environmental quality along the road? You may support your answer using simple statistics.

(6)

(iv) Comment on the accuracy and reliability of the data in Figure 10b.

(4)

(Total for Question 10 = 25 marks)

TOTAL FOR SECTION C = 50 MARKS

BLANK PAGE

SECTION D: Global issues

Answer ONE question from this section

If you answer Question 11 put a cross in the box ☒.

11 Fragile environments

(a) Study Figure 11 which shows how the average annual global temperature varied between 1860 and 2005.

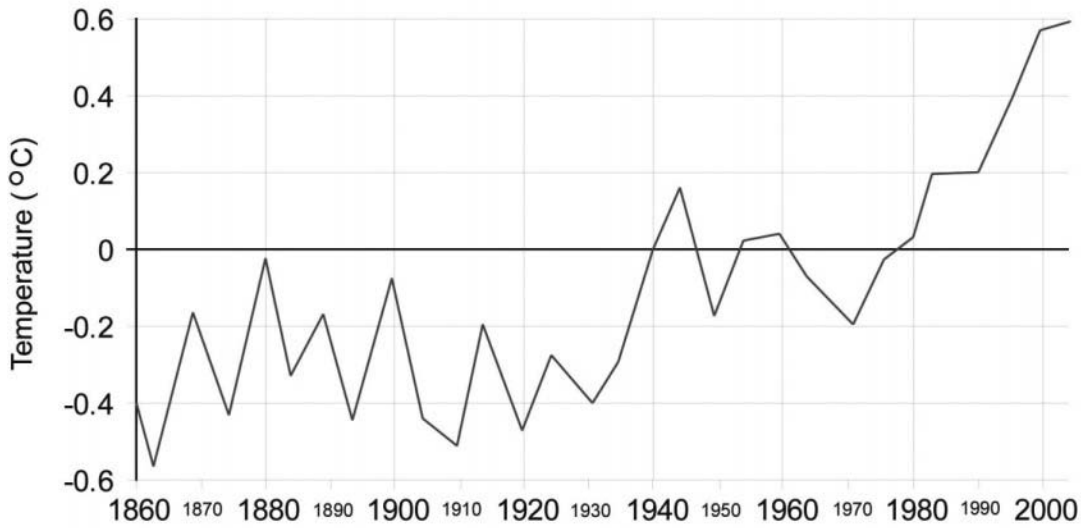


Figure 11

(i) Which of the following was the warmest decade (10-year period)?
Put a cross in the box next to the correct answer.

(1)

- ☒ **A** 1880–1890
- ☒ **B** 1940–1950
- ☒ **C** 1950–1960
- ☒ **D** 1990–2000

(ii) Describe the trend from 1980 to 2000.

(2)

.....

.....

.....

.....

(iii) Name **two** human activities that cause atmospheric pollution which may result in global warming.

(2)

1 .....

.....

2 .....

.....

(b) (i) Suggest the likely impact that climate change might have on:

(4)

1. ecosystems

.....

.....

.....

.....

2. food supply

.....

.....

.....

.....

(ii) Outline one way climate change could be addressed through an international agreement.

(2)

.....

.....

.....

.....

(iii) Describe the successes and failures of an international agreement to tackle climate change.

(4)

Successes:

Failures:

(c) Explain the methods used to reduce soil erosion in a named area affected by desertification.

(6)

Named area .....

(d) Discuss how a named threatened tropical rainforest might be managed in a sustainable way.

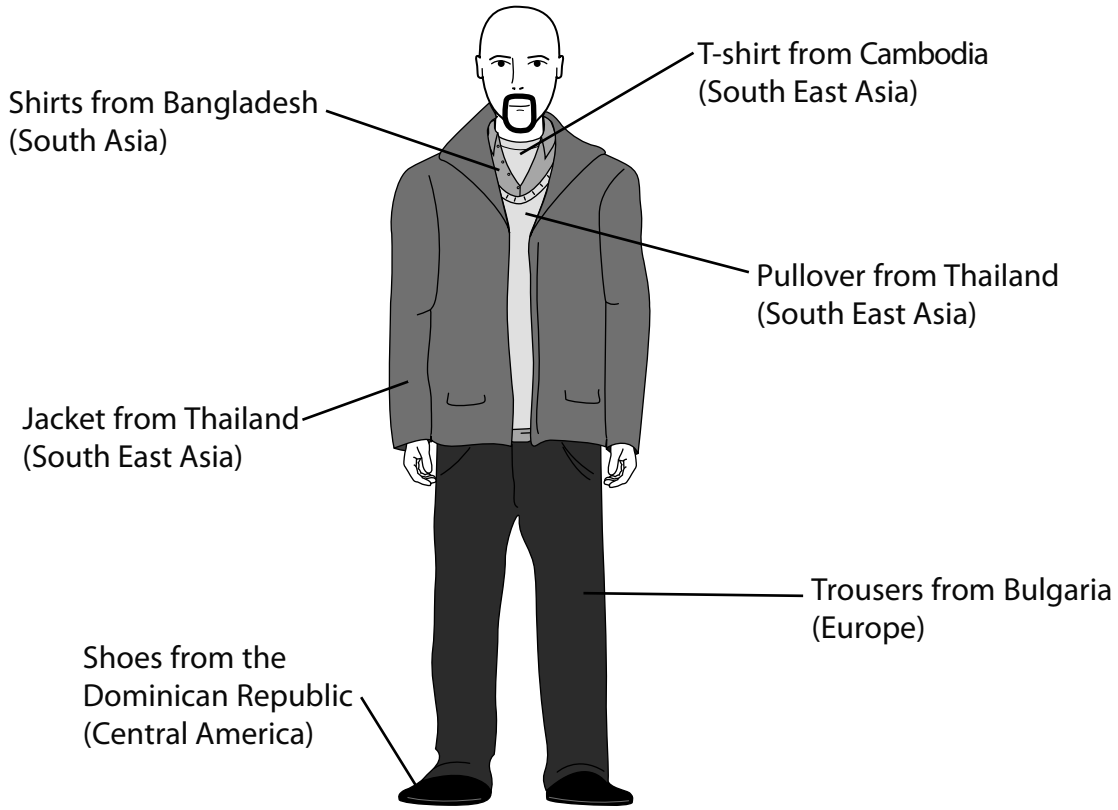
(9)

Name of threatened tropical rainforest .....

(Total for Question 11 = 30 marks)

If you answer Question 12 put a cross in the box ☒.

12 Globalisation and migration



Products retailed in 30 countries,
mainly in North America, Europe and Asia

US company employing 5550 retail staff
and having a revenue of £1 billion a year

Figure 12

(a) (i) Name **one** piece of clothing, worn by the man in Figure 12, that is **not** manufactured in South East Asia.

(1)

.....

(ii) Which global region contributed the most items to clothe the man in Figure 12?

(1)

.....

.....

(iii) What is a TNC?

(1)

.....

.....

(iv) Give **two** disadvantages for the host country of the establishment of TNCs.

(2)

1 .....

.....

2 .....

.....

(b) (i) Define the term mass tourism.

(2)

.....

.....

(ii) Outline **two** impacts of mass tourism.

(4)

1 .....

.....

.....

2 .....

.....

.....

(iii) Describe how tourism could be made more sustainable.

(4)

(c) Describe the main advantages and disadvantages of globalisation.

(6)

(d) Discuss the reasons for **one** international migration.

(9)

Named international migration .....

(Total for Question 12 = 30 marks)

If you answer Question 13 put a cross in the box ☒.

13 Development and human welfare

(a) Study Figure 13 which shows some development indicators for Sri Lanka and the United Kingdom (UK).

Indicator	Sri Lanka	United Kingdom
Urban Population (% of total population)	23	92
Infant Mortality Rate (per 1000 people)	17	6
Gross National Product (GNP) (US$ per person per year)	800	20 800
TVs (per 1000 people)	82	612
Doctors (per 1000 people)	23	164
Literacy Rate (% of total population)	91	99

Figure 13

(i) In the UK, GNP is higher than in Sri Lanka, by how many dollars per person?

(1)

☒ **A** 200

☒ **B** 2 000

☒ **C** 20 000

☒ **D** 200 000

(ii) When compared to Sri Lanka, the UK has a lower

(1)

☒ **A** infant mortality rate

☒ **B** literacy rate

☒ **C** number of doctors

☒ **D** number of TVs

(iii) Which of these countries is an LIC?

(1)

(iv) Define the term 'infant mortality'?

(2)

(b) (i) What are emerging economies?

(2)

(ii) For one emerging economy, outline **two** reasons for its development.

(4)

1

2

(iii) The global development gap has created a North – South divide. Outline **two** characteristics of countries in the 'North' of the divide.

(4)

1

2

(c) Explain why there are regional differences within a country.

(6)

(d) Discuss the successes and failures of a non-governmental agency project in an LIC.

(9)

Named project/country .....

(Total for Question 13 = 30 marks)

TOTAL FOR SECTION D = 30 MARKS
TOTAL FOR PAPER = 180 MARKS

BLANK PAGE

BLANK PAGE

BLANK PAGE

Section A: The natural environment

Question 1 – River environments

Question Number	Acceptable responses	Mark
1(a)(i)	C - north west	**1**

Question Number	Acceptable responses	Mark
1(a)(ii)	South east (1) Accept east south east (1); south south east (1)	**1**

Question Number	Acceptable responses	Mark
1(a)(iii)	any **two** from taking water from wet to dry areas/from areas of water surplus to shortage (1) movement of water south (1) to meet the demands of tourism (1) to meet the demands of farming (1) to meet the demands of settlements (1) (2 x 1)	**2**

Question Number	Acceptable responses	Mark
1(b)(i)	flat land alongside a river (1) on which flooding/deposition occurs (1)	**2**

Question Number	Acceptable responses	Mark
1(b)(ii)	a description involving the following series of steps in the formation process : formed by : river flooding/water level rises (1); deposition (1) when a river overflows on flood plain (1); river retreats and process repeated (1). Credit outline but implicit reference to each step (e.g. repetition only in 4th step). marks may be awarded if answers are shown on a fully labelled diagram	**4**

Question number		Indicative content	Mark
1(c)		an explanatory answer which includes the following: • water collection – lakes, reservoirs, rivers, wells, tanks etc • movement of water – rivers, canals and pipelines • water cleaning – levels of pollution, definition of cleanliness, recognition that standards will vary, water treatment processes • water supply to users – stand pipes, bowsers, pipeline networks	**6**
Level	Mark	Descriptor	
Level 0	0	No acceptable response	
Level 1	1 – 2	Gives a brief explanation of some of the steps involved in the collection, movement, cleaning and supply of clean water.	
Level 2	3 – 4	Gives a clear explanation of most of the steps involved in the collection, movement, cleaning and supply of clean water.	
Level 3	5 - 6	Gives a detailed explanation of all of the steps involved in the collection, movement, cleaning and supply of clean water. Has an overview of the whole process.	

Question number		Indicative content	Mark
1(d)		Candidates are asked to name a dam/reservoir or reservoir, identify its impacts and discuss how various groups of/individual people see them as either advantages/positive or disadvantages/negative. Reference should be made to the following : • impacts – flood & drought control; irrigation; HEP; deposition behind dam; decreased fish catches; population displacement; drowning of landscape, habitats etc .. • groups or individuals – industry; government; local farmers; conservationists … • reasoned viewpoints e.g. local farmers benefit from increased irrigation opportunities (L2); villagers welcome dam as previous floods have killed but regret moving to make way for dam (L3) .. Purely generic responses failing to name an actual and appropriate water storage project (e.g. Three Gorges; Lake Mead; Kielder; Aswan Dam-Lake Nasser ..) to be restricted to Level 1. Level 3 responses should show match between the project, the impacts and people referred to.	**9**
Level	Mark	Descriptor	
Level 0	0	No acceptable response	
Level 1	1 – 3	Expect either impacts identified or a limited range of views exchanged between interest groups (e.g. power generating companies for it; conservationists object).	
Level 2	4 - 6	Expect range of impacts related to groups/individuals. Different views that groups/individuals hold appreciated with reasoning outlined(e.g. conservationists object to the flooding ..). Some consideration of conflicts of interest and water storage as an issue.	
Level 3	7 - 9	Expect a range of impacts with conflicting viewpoints to them, and some analysis as to why i.e. an appreciation of differing experiences, priorities, values. Understands that an impact can be seen as positive by one but negative by another. An examination of the argument raised by the issue of water storage with lines of reasoning evident.	

TOTAL: 25 MARKS

Question 2 – Coastal environments

Question Number	Acceptable responses	Mark
2(a)(i)	any **one** of the following ways creditable : the cliff face has retreated/moved further back (1) there is now a shingle beach (1) there is now a wave-cut platform (1)	**1**

Question Number	Acceptable responses	Mark
2(a)(ii)	1 mark for each correct label added : 1. cliff face = the exposed area of chalk (1) 2. wave-cut platform = the area between the cliff face and the deeper sea (1) (2 x 1)	**2**

Question Number	Acceptable responses	Mark
2(a)(iii)	any **one** of the following processes acceptable : erosion/abrasion/wave pounding/hydraulic action or any other erosional process (1) weathering (1) mass movement (1)	**1**

Question Number	Acceptable responses	Mark
2(b)(i)	an accumulation of sand and/or shingle (1) which is deposited by the sea (1)	**2**

Question Number	Acceptable responses	Mark
2(b)(ii)	an description linking the following: the movement of sediment (1) due to longshore drift (1) which is deposited when the coastline changes direction (1) marks may be awarded if answers are shown on a fully labelled diagram	**4**

Question Number	Indicative content	
2(c)	Expect an explanatory answer which addresses : • the nature of hard engineering i.e. structures using steel, concrete … and civil engineering skills, including examples – sea walls; groynes; breakwaters; rock armour; cliff drainage … • conflicting viewpoints re hard versus soft engineering e.g. eyesore; unnatural; expensive; effective • views on relative strengths and weaknesses of types of hard engineering e.g. sea walls expensive but effective; rock armour cheap • reasons behind the views, perhaps related to groups of people e.g. tourists favour sea walls and promenades rather than ugly breakwaters; groynes favoured by councils because lower cost and easy to repair but environmentalists concerned about sediment flow along coast.	**6**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 2	Expect simple clarification of the meaning of hard engineering and some basic attempt to point out a few strengths and weaknesses of such(re soft engineering but unspecified as so)
Level 2	3 - 4	Clear explanation of the nature of hard engineering, including reference to hard structures, and a reasonable appreciation of conflicting viewpoints towards such (in relation to soft strategies) in which some reasoning evident. Reasons may be related to identified coastal user groups.
Level 3	5 - 6	Thorough explanation of both hard engineering strategies and of conflicting and reasoned views as to its use. Expect reference to coastal user groups e.g. beach tourists; bird-watchers … Some may offer viewpoints which distinguish between different types of hard engineering.

Question Number	Indicative content	
2(d)	• the focus is on management i.e. policies, actions, schemes .. • there should be understanding of the issues and threats facing the named coastal ecosystem e.g. pressures on coral reefs from anchorages, tourist souvenirs, agricultural pollution .. • expect case study knowledge of such as coral reefs, mangrove stands, sand dunes, salt marshes (and accept other coastal environments e.g. beaches, estuaries .. for max of Level 2 or purely generic responses without a named ecosystem for Level 1 max.) • there should be understanding of how management is working to hopefully minimise the threats i.e. the process, and why these strategies were adopted (e.g. coral reef protection measures introduced by some Caribbean islands) • as a higher-order discuss question there should be some scope to extend the examination of management strategies into an evaluation/assessment of how well they are working and the reasons why.	**9**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 3	Lists the threats facing the named ecosystem and gives a brief explanation of a few of the actions involved in its management.
Level 2	4 - 6	Explains key issues and threats facing the named ecosystem (e.g. loss of biodiversity) and gives a clear explanation of some of the key actions involved in its management to minimise the threats.
Level 3	7 - 9	Discusses thoroughly key issues and threats facing the named ecosystem and gives a strong explanation, including rationale for key actions involved in its management which minimise threat. Has good case study understanding. Better responses may attempt a reasoned evaluation of current policy and practice for the named ecosystem e.g. references to the success of current ecosystem protection measures.

TOTAL: 25 MARKS

Question 3 – Hazardous environments

Question Number	Acceptable responses	Mark
3(a)(i)	Smoke/ash clouds (1)	**1**

Question Number	Acceptable responses	Mark
3(a)(ii)	any **three** of the following: fertile soil (1) tourism (1) geothermal power/heat (1) scientific research (1) tradition (1) (3 x 1)	**3**

Question Number	Acceptable responses	Mark
3(b)(i)	a rigid section or giant slab of the Earth's crust (1) which can move/floats on top of the mantle (1)	**2**

Question Number	Acceptable responses	Mark
3(b)(ii)	A description linking the following steps in formation: magma rises/moves up (1) a rift in Earth's crust (1) rift formed by the separating plates (1) magma accumulates/cools/builds up to form volcano (1) Marks may be awarded if steps are shown on a fully labelled diagram	**4**

Question Number	Indicative content	
3(c)	an answer which includes: • understanding of why storms happen – warm water for energy (27 degrees C plus); rising, swirling air around low pressure "eye"; rising and cooling air. • some development of weather characteristics – low pressure; revolving; dense clouds; calm clear "eye"; heavy rainfall; violent winds around edge of "eye." Genuine explanation calls for cause and characteristic to be linked. Better candidates will do this.	**6**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 2	Simple explanatory points about either the weather characteristics of a storm or some suggestion of causation unlinked to their weather.
Level 2	3 - 4	Expect clear explanation of key weather characteristics with some linkage to the reasons why. Reasons likely to be outline for each characteristic or the explained characteristics limited in range.
Level 3	5 - 6	Detailed and developed explanation which links characteristics to causes. Shows good understanding of causation with reasons for the key weather characteristics explicit.

Question Number	Indicative content	
3(d)	An answer which includes the following reasons, perhaps set in a spatial context : • the contrasting availability of weather forecasts in LICs and HICs • the varying degrees of warning systems and communications between the two groups of countries • differing levels of preparation such as the availability of methods to mitigate the impacts such as shelters and evacuation • the ability of buildings and infrastructure to withstand the event will be influenced by the income and technology available • the level of development will directly influence the ability of a country to respond to the event • the level of development will influence the long term impacts and rate of recovery • reference to named storms e.g. Floyd and/or named affected locations e.g. Caribbean islands & Florida. Storms affecting both LICs & USA around Gulf of Mexico effective for this question. • some reference to impacts and damage • the tropical location with its storms of many LICs	**9**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 3	Expect some reference to impacts and damage of a tropical storm, perhaps in an LIC and a brief consideration of the reasons for the severe damage. Reasons likely to be limited in depth and scope.
Level 2	4 - 6	Expect a reasonable consideration with some examination of the role of a range of factors as contributory reasons for tropical storm damage generally being greater in LICs than HICs. May be reference to examples of storms and/or places and level of damage with an element of HIC/LIC comparativeness evident. Some of reasons offered need to show some development and depth.
Level 3	7 - 9	Expect a comparative response, perhaps case study-led on the reasons for differential damage in HIC(s) & LIC(s).Clear examination of a range of reasons with an element of assessment/evaluation of the significance of factors as reasons. Has an overview/synthesis of how the level of development of HICs/LICs affects the preparation for and the recovery from tropical storms.

TOTAL: 25 MARKS

Section B: People and their environments

Question 4 – Economic activity and energy

Question Number	Acceptable responses	Mark
4(a)(i)	B	**1**

Question Number	Acceptable responses	Mark
4(a)(ii)	Credit up to any **three** valid and observable factors e.g. flat land (1) room for expansion (1) good transport links (1) Accept one "implied" factor e.g. technology and skills base (1); government support for industry (1) .. i.e. factors implied by the photograph likely to have been shot in a HIC or MIC/NIC. (3 x 1)	**3**

Question Number	Acceptable responses	Mark
4(b)(i)	manufacturing involving technology (1) that is advanced (1) or an appropriate example for the 2nd mark, such as micro-chip production, genetic engineering (1)	**2**

Question Number	Acceptable responses	Mark
4(b)(ii)	any **two** of the following linked answers: unregulated/unofficial (1) so not controlled by government/legislation (1) black economy/cash-in-hand economy (1) so no taxes paid/poor working conditions (1) child labour (1) so children work in unsafe conditions/high level of abuse (1) insecure (1) so no guarantee of steady income/employment (1) (2 x 2)	**4**

Question Number		Indicative content	
4(c)		an answer which covers the following aspects of renewable energy sources : • advantages : not finite/inexhaustible; generally cleaner; no serious adverse environmental impacts; compatible with Nature; non-combustible • disadvantages : expensive; unpredictable output; some visual and noise pollution; inefficient for mass energy generation • identification of main renewable sources : tidal & wave; HEP; wind; solar; biomass; geothermal	**6**
Level	Mark	Descriptor	
Level 0	0	No acceptable response	
Level 1	1 – 2	Expect a limited range of stated advantages and/or disadvantages.	
Level 2	3 – 4	Expect some clear explanation of both advantages and disadvantages in generic renewable terms or of a limited range of both advantages and disadvantages related to a named renewable source. Evidence of a developed answer.	
Level 3	5 – 6	Expect detailed explanation of a range of advantages and disadvantages for either one or more named renewable sources or renewable sources generally. Explanations supported with detailed references to impacts and perhaps assessed in relation to non-renewable sources.	

Question Number		Indicative content	
4(d)		An answer which : • names an HIC area in which manufacturing is declining or has recently died • defines de-industrialisation (e.g. decline of traditional manufacturing, due to competition from other countries, such as NICs) • identifies direct short-term consequences (e.g. unemployment; derelict sites; poverty; crime; social problems; vicious spiral ..) • refers to longer-term consequences (e.g. emerging tertiary/quaternary sector; government financial support; regeneration schemes; re-branding/re-imaging ..) If the named area is not identified in the given place, but is named in the response then the mark scheme should be applied in the normal way. Generic responses unrelated to a named area = Level 1. Level 2 max where area can be implied from the response but is not directly named.	**9**
Level	Mark	Descriptor	
Level 0	0	No acceptable response	
Level 1	1 – 3	Gives a brief identification of some key consequences as issues to be resolved, especially short-term ones. Likely to be generic or related a named HIC area.	
Level 2	4 – 6	Gives a clear consideration to a range of key consequences, including perhaps longer-term ones. Clearly linked to a named HIC area.	
Level 3	7 – 9	Gives a detailed consideration of a range of short- and longer-term consequences, including some evaluation of the extent of the problems and opportunities faced. Detailed links to the named area of the HIC with an element of synthesis of the local issues.	

TOTAL: 25 MARKS

Question 5 – Ecosystems and rural environments

Question Number	Acceptable responses	Mark
5(a)(i)	Expect arable (1) Accept commercial (1); crop (1)	**1**

Question Number	Acceptable responses	Mark
5(a)(ii)	input box any **one** of the following related to arable farming: money (investment)/fuel (energy)/labour/machines/water/seeds process box any **one** of the following related to arable farming: cultivation/applying fertilisers/harvesting output box any **one** of the following related to arable farming: other mature (harvested) cereal crops/animal fodder (3 x 1)	**3**

Question Number	Acceptable responses	Mark
5(b)(i)	each of the following for max: farming where no profit is obtained (1) crops/animals kept for own consumption(1)	**2**

Question Number	Acceptable responses	Mark
5(b)(ii)	any **two** of the following linked answers: rapid population growth (1) so demand exceeds supply (1) political problems/wars (1) too dangerous to farm in some areas (1) climate change (1) making some areas unsuitable for farming(1) (2 x 2)	**4**

Question Number	Indicative content	
5(c)	An answer which includes reference to : • accessible countryside and new economic activities/ employment opportunities i.e. recreation, leisure and tourism (e.g. golf; stables ..); counter-urbanisation and commuting; broadband and telecottaging; light industrial activities (e.g. haulage contractors ..) • remote countryside and rural depopulation. Spiral of decline and poor service provision. • diversification/less dependence on farming. Diversification of farming (e.g. organic; B&B ..) • changes in building use/farm buildings have become industrial units/farm workers houses have become holiday cottages • generic explanations fine but examples of named accessible and/or remote rural areas welcome. LIC rural observations not creditable unless apply also to HICs generally.	**6**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 – 2	Expect either one explained and valid rural change or a range of valid changes stated and undeveloped.
Level 2	3 – 4	Expect clear and reasonable explanation of why or how some valid rural changes have happened. Reference can be to either accessible or remote areas only.
Level 3	5 – 6	Expect a wide-ranging explanation of why or how a number of key rural changes in both accessible and remote rural areas have occurred. Response should offer reasons and be developed and linked. Locational examples may be given.

Question Number	Indicative content	
5(d)	Answers could focus on legislative requirements to 'conserve' landscape or the need to protect both landscape and to provide recreational opportunities, depending on named area given. Answers could include the following reasons : • protection of areas with special landscape qualities • the need to prevent development whilst supporting the socio-economic well being of local residents • the need to protect areas of natural beauty • the need to protect areas with special ecological values If the named area is not identified in the given place, but is named in the text then the mark scheme should be applied in the normal way. Award max of Level 2 where location can be inferred from the candidate's writing. However, if the named area cannot be identified from what the candidate has written then Level 1 is the max award.	**9**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 – 3	Gives a brief explanation of some reasons for protection. Likely to be generic rather than for a named protected area.
Level 2	4 – 6	Shows consideration of a number of valid and distinctive reasons for protection of the area. Clearly linked to a named protected area and evidence of evaluating/assessing the prime motives for protection.
Level 3	7 – 9	Offers a thorough discussion of a range of reasons for protection of the area. Detailed links to specific examples drawn from the protected named area. Recognises the significance of protection for the area identified in a synthetic way and the challenges in trying to 'protect'/manage National Park landscape and habitats.

TOTAL: 25 MARKS

Question 6 – Urban environments

Question Number	Acceptable responses	Mark
6(a)(i)	D - South west (1)	**1**

Question Number	Acceptable responses	Mark
6(a)(ii)	Allocate 1 mark to each valid and distinctive reason offered e.g. previously unoccupied land (1) poor and looking for rent-free locations (1) first part of city they come to (1) other poor people already there (1) not too far from city jobs (1) (3 x 1)	**3**

Question Number	Acceptable responses	Mark
6(b)(i)	Credit full and accurate definition with 2 marks e.g. city with population of over 10 millions. Award 1 mark for following responses : largest cities (1); millionaire or million city (1); large or very large city (1); large urban area (1); large and rapidly growing city (1).	**2**

Question Number	Acceptable responses	Mark
6(b)(ii)	any **two** of the following linked answers: similar land uses have the same locational needs(1) they need a large amount of space/being accessible to customers and employees (1). land values decline from the centre (1) the retail industry can usually pay most so are found concentrated at the centre (1). similar land uses can afford the same land values(1) so those that can pay more concentrate in the CBD (1). (2 x 2)	**4**

Question Number	Indicative content	
6(c)	An answer which includes : • clarification of the term, greenfield site (open land on mainly the urban fringe) • greenfield site developments : housing; industry; shopping; recreation; public services .. • the greenfield versus brownfield debate, and not everyone being happy with loss of countryside around urban areas • the advantages of greenfield sites – cheap and accessible; attractive environment; choice of layout; housing supply increases; space for development … • the disadvantages of greenfield sites addressed by advantages of brownfield sites (term clarified) – loss of attractive scenery; habitat disturbance; urban sprawl; countryside pollution .. • linking of advantages/disadvantages to views of named groups i.e. house-builders; industrialists; supermarket shoppers; environmentalists ..	**6**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 – 2	Expect simple generic views identified for and against greenfield development.
Level 2	3 – 4	Expect clear explanation of either some generic advantages and some generic disadvantages of greenfield developments or a limited range of named groups and their key reasoned views explained. May be a strong but unbalanced account addressing one side of argument only.
Level 3	5 – 6	Expect detailed explanation of a range of named groups and their developed reasons for greenfield development and a range of named groups and their developed reasons against greenfield development. Groups and reasons to be linked. Must be balanced and show conflicting and reasoned viewpoints.

Question Number	Indicative content	
6(d)	Answers could focus on one or more of the following mitigating strategies, depending on the named city : • demolition and eviction • local authority provision including new town building, government housing in shanty town, improving existing housing .. • service programmes and self-help schemes • rural enterprise schemes to reduce rural-to-urban migration • some evaluation of the above strategies e.g. bulldozing short-term and no solution; local authorities low on funds … • clarification of nature of shanty town i.e. residential area of illegal squatters lacking formal organisation and basic services ….. If the named city is not identified in the given place, but is named in the candidate's response, the mark scheme should be applied in the normal way. Max of Level 2 where named city can at best be only implied. However, if the named city cannot be identified al all but strategies written about are valid albeit generic then award max of Level 1 marks.	**9**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 – 3	Expect either some generic strategies identified or an outline account of upgrading in a named citys' shanty towns.
Level 2	4 – 6	Gives a clear consideration of how a named city is managing its shanty towns so as to improve living conditions. Expect some case-study knowledge and clarification of key shanty town issues.
Level 3	7 – 9	Offers a detailed discussion of the strategies being adopted in a named city to improve living conditions in its shanty towns (e.g. the favelas of Rio de Janeiro). Case-study knowledge expected as is some evaluation of strategy. Actual shanty towns may be identified and/or their nature and problems explicit.

TOTAL: 25 MARKS

Section C: Practical geographical enquiry

Question 7 – River Environments Fieldwork

Question Number	Acceptable responses	Mark
7(a)(i)	1 = (Fold out) identification chart / to find out what the stream animal are etc 2 = pH test kit or alkalinity / acidity etc (2 x 1)	**2**

Question Number	Acceptable responses	Mark
7(a)(ii)	**Identification chart:** identify animals / invertebrates (1), indicators of water quality (1), levels of oxygen (1), use a net to catch / kick sample (1), follow the taxonomic key / match **pH test kit**: alkalinity / acidity (1), how good water quality is (1), put in indicator solution (1), watch for colour change (1), read off against colour chart (1) (3 x 1)	**3**

Question Number	Acceptable responses	Mark
7(a)(iii)	Access / ownership of land (1), distance from school / base / field centre (1) health and safety considerations (1), weather (past / forecast) (1), depth of water (1) distance sites apart / sampling (1), land use (1) (3 x 1)	**3**

Question Number	Acceptable responses	Mark
7(b)(i)	Simple bar chart or histogram sketch (1), plots / indicates / compares sites 1 and 5 (1), axes labelled (1) approximate / some data on graph (1), title (1), appropriate key (1) (4 x 1)	**4**

Question Number	Acceptable responses	Mark
7(b)(ii)	It is the best way to display this environmental quality data (1), and makes it easy for user to interpret (1), quick and / or easy to draw (1), can be created easily on a computer spreadsheet (1), shows visual patterns and trends well (1), makes comparison between different points easier (1) (3 x 1)	**3**

Question Number	Indicative content	Mark
7(b)(iii)	an answer which: • There is a clear change in environmental quality data from site 1 to site 5, based on species present which are indicators. These species are sensitive to pollution and their demands for oxygen in the water. • Stoneflies and Mayflies are found at the cleanest sites (1+2) • Site 1 is cleanest; site 4 probably worst. • Hoglouse and Rat-tailed maggot (indicators of poorer water quality) common at 3, 4 and 5 • Site 2 and 3 have highest levels of diversity • Non-biting midge common at all sites = can be found in a range of different water qualities.	**6**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 2	Very brief description of some of the data provided. Reference to conclusions will be likely absent or very limited.
Level 2	3 - 4	Some comparison of changes between sites, including the idea of patterns. Conclusions mentioned. May use data to support.
Level 3	5 - 6	A good conclusion revealing the overall trend and comparison of changes from at least two sites. Some consideration of individual sites and possible reasons for that occurrence. Simple statistics may be used.

Question Number	Acceptable responses	Mark
7b(iv)	Results may be treated with caution (1), as this represents a small sample / limited number of sites (1), point sample (1), no chemical test(s) to validate (1), only done at one period of time / not repeated (1), misidentification / poor counting / recording (1). But these species may be good as longer term invertebrate indicators (1), no calibration of equipment / technology to go wrong when testing (1) (4 x 1) An extra mark (+1) can be awarded for appropriate development or extension of an idea	**4**

TOTAL: 25 MARKS

Question 8 – Hazardous Environments Fieldwork

Question Number	Acceptable responses	Mark
8(a)(i)	1 = wind speed indicator / anemometer 2 = rain gauge / rainfall total / amount of rain (2 x 1)	**2**

Question Number	Acceptable responses	Mark
8(a)(ii)	**Wind speed indicator:** hold in the air (1), set height above ground(1) away for obstructions, e.g. buildings (1), write down measurements (1), repeat over a series of hours / days (1), get average / maximum wind speed *No credit for it measures wind / wind strength* **Rain gauge:** put on floor (1), or a suitable flat surface (1), record a daily / hourly / weekly precipitation etc basis (1), convert to mm / day / hour etc (1), exposed location (1) *No credit for it records amount of rain* (3 x 1)	**3**

Question Number	Acceptable responses	Mark
8(a)(iii)	Access / ownership of land W+R (1), distance from school / base / field centre W+R (1) health and safety considerations W+R (1), weather (past / forecast) W+R (1), levelness of ground R (1) proximity to buildings W+R (1) proximity to large trees W+R(1) distance sites apart / sampling W+R (1) (3 x 1) W = wind R = rain	**3**

Question Number	Acceptable responses	Mark
8(b)(i)	Simple bar chart / histogram / line graph sketch (1) plots / indicates / compare temperature and rainfall (1) axes labelled (1) approximate / some data on graph (1) title (1) appropriate key (1) (4 x 1)	**4**

Question Number	Acceptable responses	Mark
8(b)(ii)	It is the best way to display this weather data (1), and makes it easy for user to interpret (1), quick and / or easy to draw (1), can be created easily on a computer spreadsheet (1), shows visual patterns and trends well (1), makes comparison between different points / days easier (1) (3 x 1)	**3**

Question Number	Indicative content	Mark
8(b)(iii)	an answer which: • There is a clear change in the weather variables recorded from Day 1 – Day 6 • Temperature varies from 3-8ºC (low variation over the period) • Only days 2+3 have rain; others were dry • All days were cloudy; day 1+6 had least cloud at 9.00am. Day 2 + 3 were the cloudiest • Pressure shows generally an increasing trend over the period – 996 – 1003 mb • This data is typical during the passage of a depression over the UK.	6

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 2	Very brief description of some of the data provided. Reference to conclusions will be likely absent or very limited.
Level 2	3 - 4	Some comparison of changes between days, including the idea of patterns. Conclusions mentioned. May use data to support.
Level 3	5 - 6	A good conclusion revealing some overall trends and comparison of changes for at least two variables over time. Simple statistics, including data, may be used.

Question Number	Acceptable responses	Mark
8b(iv)	Results may be treated with caution (1), as this represents a small sample / limited number of days (1), point sample in one place (1), limited range of variables monitored (1), only done at 9.00am / not repeated (1) poor counting / recording (1). But some of these approaches may be good as no calibration of equipment / technology to go wrong when testing (1), low tech (1), easy for novice / inexperienced (1) (4 x 1) An extra mark (+1) can be awarded for appropriate development or extension of an idea	**4**

TOTAL: 25 MARKS

Question 9 – Ecosystems and Rural Environments Fieldwork

Question Number	Acceptable responses	Mark
9(a)(i)	Accept any plausible aim, as long as it includes idea of measuring / observing / monitoring / recording **changes** (spatially) in a sand-dune environment .	**1**

Question Number	Acceptable responses	Mark
9(a)(ii)	Slips / trips / bumps (1), 'Stranger dander' (1), cuts and abrasions from plants / litter in sand (1), hypothermia in winter (1), sunburn in summer (1) golf-ball strike (1) Accept other possible risks, even if they can't be identified from the map (may have visited site) (2 x 1)	**2**

Question Number	Acceptable responses	Mark
9(a)(iii)	Big range of equipment here: clinometers, quadrat, tape, ranging-pole etc Allow (1) for type of equipment and (1) for a more detailed discussion of how it might be used. Max 2 if only 2+ types of equipment are stated and no description of use.	**3**

Question Number	Acceptable responses	Mark
9(a)(iv)	This is a form of stratified sampling (1), fairest / most reliable way to do it (1), coincide with particular aspects of the changing slope profile (1) links to slope gradient / beak in slope (1). No credit for quickest, easiest or was 'best' without any justification or support.	**2**

Question Number	Acceptable responses	Mark
9(b)(i)	Simple bar chart / histogram / line graph sketch (1) plots / indicates / compare temperature and rainfall (1) axes labelled (1) approximate / some data on graph (1) title (1) appropriate key (1) (4 x 1)	**4**

Question Number	Acceptable responses	Mark
9(b)(ii)	It is the best way to display this transect data (1), and makes it easy for user to interpret (1), quick and / or easy to draw (1), can be created easily on a computer spreadsheet (1), shows visual patterns and trends well (1), makes comparison between different points / variables easier (1) (3 x 1)	**3**

Question Number	Indicative content	Mark
9(b)(iii)	an answer which: • There is a clear change in the soil and plants spatially along the transect – therefore the soil + environmental conditions must also be changing (biotic + abiotic) • Soil pH changes from neutral to slightly more acidic at 5.5 at 720 metres • The highest distributions of Marram grass are restricted to sites 2-3 (190-340m), It is largely absent at other sites • There is a general increase in the range / diversity of species indicating better growing conditions / less hostile.	6

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 2	Very brief description of some of the data provided. Reference to conclusions will be likely absent or very limited.
Level 2	3 - 4	Some comparison of changes between sites, including the idea of patterns. Conclusions mentioned. May use data to support.
Level 3	5 - 6	A good conclusion revealing some overall trends and comparison of changes for at least two variables spatially. Simple statistics, including data, may be used.

Question Number	Acceptable responses	Mark
9b(iv)	Results may be treated with caution (1), as this represents a small sample / limited number of sites (1), point sample in one place (1), gaps between sites (1), limited range of variables measured (1), poor counting / recording / identification (1). But some of these approaches may be good as no calibration of equipment / technology to go wrong when testing (1), low tech (1), easy for novice / inexperienced (1) (4 x 1) An extra mark (+1) can be awarded for appropriate development or extension of an idea	**4**

TOTAL: 25 MARKS

Question 10 – Urban Environments Fieldwork

Question Number	Acceptable responses	Mark
10(a)(i)	Accept any plausible aim, as long as it includes idea of measuring / observing / monitoring / recording **changes** (spatially) in an urban / CBD environment.	**1**

Question Number	Acceptable responses	Mark
10(a)(ii)	Slips / trips / bumps (1), 'Stranger dander' / other street users (1), traffic / roads (1), hypothermia in winter (1), sunburn in summer (1), getting lost (1) mugging (1) Accept other possible risks, even if they can't be identified from the map + images. (2 x 1)	**2**

Question Number	Acceptable responses	Mark
10(a)(iii)	Bi-polar / environmental quality sheets likely to be important; possibly GIS / GPS (including smartphones), sound meters, lichens for air quality etc. Questionnaires also acceptable if linked to perception of quality. Allow (1) for type of equipment and (1) for a more detailed discussion of how it might be used. Max 2 if only 2+ types of equipment are stated and no description of use.	**3**

Question Number	Acceptable responses	Mark
10(a)(iv)	This is a form of systematic sampling (1), fairest / most reliable way to do it (1), correct approach with environmental gradient / change (1) No credit for quickest, easiest or was 'best' without any justification or support.	**2**

Question Number	Acceptable responses	Mark
10(b)(i)	Simple bar chart / histogram / line graph sketch (1) plots / indicates / compare temperature and rainfall (1) axes labelled (1) approximate / some data on graph (1) title (1) appropriate key (1) (4 x 1)	**4**

Question Number	Acceptable responses	Mark
10(b)(ii)	It is the best way to display this transect data (1), and makes it easy for user to interpret (1), quick and / or easy to draw (1), can be created easily on a computer spreadsheet (1), shows visual patterns and trends well (1), makes comparison between different sites / variables easier (1) (3 x 1)	**3**

Question Number	Indicative content	Mark
10(b)(iii)	an answer which: • There is a clear change overall in EQ survey, but the pattern is not clear directional improvement – therefore suggests 'pockets' of good and less-good quality. • Site 4 generally seems to be the worst, with site 1 and site 5 much better when compared with total scores. • All variables measured show a big range – litter and vandalism the most -6 to +10. There is least variation in street cleanliness.	**6**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 2	Very brief description of some of the data provided. Reference to conclusions will be likely absent or very limited.
Level 2	3 - 4	Some comparison of changes between sites, including the idea of patterns / 'pockets'. Conclusions mentioned. May use data to support.
Level 3	5 - 6	A good conclusion revealing some overall trends and comparison of changes for at least two indicators spatially. Simple statistics, including data, may be used.

Question Number	Acceptable responses	Mark
10b(iv)	Results may be treated with caution (1), as this represents a small sample / limited number of sites (1), point sample in one place (1), gaps between sites (1), limited range of variables measured (1), poor counting / recording / identification (1), based on EQ data which is subjective (1) But some of these approaches may be good as no calibration of equipment / technology to go wrong when testing (1), low tech (1), easy for novice / inexperienced (1) (4 x 1) An extra mark (+1) can be awarded for appropriate development or extension of an idea	**4**

TOTAL: 25 MARKS

Section D: Global Issues

Question 11 – Fragile environments

Question Number	Acceptable responses	Mark
11(a)(i)	D	**1**

Question Number	Acceptable responses	Mark
11(a)(ii)	any **two** from the following: upward/rising(1) rising more rapidly since 1980 (1) fluctuating (1) use of specific data (1) (2 x 1)	**2**

Question Number	Acceptable responses	Mark
11(a)(iii)	any **two** from the following: burning fossil fuels (1) vehicle emissions (1) burning tropical rainforests (1) agricultural activities (1) (2 x 1)	**2**

Question Number	Acceptable responses	Mark
11(b)(i)	**ecosystems** any **one** of the following linked statements: global warming (1) may cause irreversible damage to identifiable ecosystems (1) loss of biodiversity/loss of species(1) will result in damage to food chain (1) **food supply** any **one** of the following linked statements: may be regional shortages/surpluses(1) where changes the conditions available for crop growth/livestock production occur (1) change in the distribution of vectors and diseases (1) which impacts on the number of plants and animals (1) (2 x 2)	**4**

Question Number	Acceptable responses	Mark
11(b)(ii)	Credit : reduce CO_2 emissions (1) by setting agreed targets for countries (1) or other relevant outline	**2**

Question Number	Acceptable responses	Mark
11(b)(iii)	**Successes (2 marks)** any **one** of the following linked statements: the majority of countries have ratified the agreement (1) which has promoted international cooperation (1) European emissions have been cut(1)which indicates it is possible to slow the rate of climate change globally (1) **Failures (2 marks)** any **one** of the following linked statements: not ratified globally (1) therefore will not be successful until major emission producing countries/USA ratify (1) emerging economies/China (1) are increasing emissions (1) (2 x 2)	**4**

Question Number	Indicative content	
11(c)	An answer that includes : • prevention methods such as avoiding overgrazing or over cultivation • use of intercropping/cover crops • use of humus rich fertilisers • contour ploughing • use of wind breaks, bunds and stone walls • education of farmers • reduce human population pressure • control of global climate change and the spread of deserts If the named area is not identified in the given place, but is named in the candidate's response, the mark scheme should be applied in the normal way. Where the location can be at best only implied, Level 2 max applies. However, if the named area cannot be identified from what the candidate has written but methods are valid albeit generic then Level 1 marks to be awarded.	**6**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 2	Gives a brief explanation of some of the methods used to reduce soil erosion. Likely to be generic, rather than for the named area.
Level 2	3 - 4	Gives a clear explanation of some of the methods used to reduce soil erosion. Clearly linked to the named area.
Level 3	5 - 6	Gives a detailed explanation of a number of the methods used to reduce soil erosion. Detailed links to specific methods related to the named area.

Question Number	Indicative content	
11(d)	An answer that focuses : • identification of threats to rainforests • preventing of blanket logging • selective felling and replanting programmes • legislation and its enforcement • agroforestry and associated schemes • incentives to encourage local people, such as tourism, to use alternative methods to logging to secure income • education If the named threatened tropical rainforest is not identified in the given place, but is named in the candidate's response, the mark scheme should be applied in the normal way. Where the location can be implied in the text then Level 2 maximum marks apply. However, if the named threatened tropical rainforest cannot be identified from what the candidate has written but generic sustainable forestry is referred to then a max of Level 1 marks can be awarded.	**9**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 3	Expect to see some of the threats to a named rainforest or generically identified and limited suggestions offered as to how it might be sustainably managed.
Level 2	4 - 6	Gives a clear consideration of a number of the threats to the named rainforest and a number of suggestions as to how it might be sustainably managed.
Level 3	7 - 9	Offers a detailed discussion of the threats to the named rainforest and range of detailed suggestions as to how it might be sustainably managed.

TOTAL: 30 MARKS

Question 12 – Globalisation and migration

Question Number	Acceptable responses	Mark
12(a)(i)	trousers or shoes	**1**

Question Number	Acceptable responses	Mark
12(a)(ii)	South East Asia	**1**

Question Number	Acceptable responses	Mark
12(a)(iii)	Trans National Company Accept a valid definition e.g. a large company operating in a number of countries (1).	**1**

Question Number	Acceptable responses	Mark
12(a)(iv)	any **two** of the following: exploitation of workforce (1), money goes out of the country (1), uses the resources without development (1) (2 x 1)	**2**

Question Number	Acceptable responses	Mark
12(b)(i)	the movement of large numbers of people (1) in a short period of time to a tourist location (1)	**2**

Question Number	Acceptable responses	Mark
12(b)(ii)	any **two** of the following linked statements: rapid development (1) of hotels and infrastructure(1) loss of ecosystems(1)causing a reduction in biodiversity(1) loss of traditional culture(1) which reduces the stability of communities increased income for the area(1) causing a rise in the standard of living (1) (2 x 2)	**4**

Question Number	Acceptable responses	Mark
12(b)(iii)	any **two** of the following linked statements: the development of ecotourism(1) which involves small numbers of tourists(1) people are educated(1) so that they appreciate the local cultures(1) it is locally orientated (1) which reduces the impacts of importing services and products(1) it tries to reduce the use of non-renewable resources(1) and therefore reduces environmental damage(1) it is based on conservation (1) therefore fragile environments are protected(1) (2 x 2)	**4**

Question Number	Indicative content	
12(c)	**advantages** • increased trade between countries • increased aid to LICs and areas of low economic development • increased foreign investment • increased global quality of life • increased communications and the spread of information **disadvantages** • loss of national identities • exploitation of people in some areas • disparities within a country may increase	**6**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 2	Gives a brief explanation of some of the advantages and disadvantages Likely to be a very generalised and unbalanced answer.
Level 2	3 - 4	Gives a clear explanation of some of the advantages and disadvantages. Will be more specific and will include both advantage and disadvantages.
Level 3	5 - 6	Gives a detailed explanation of a number of the advantages and disadvantages. Will be more specific and will give a more balanced account of both advantage and disadvantages.

Question Number	Indicative content	
12(d)	The content of the answer will be determined by the international migration selected. Focus will be on one or more of the following sets of reasons : • voluntary migration for economic reasons/for work • retirement migration • forced migration due to hazards/war/ethnic cleansing Likely to be set in a push-pull factors framework.	**9**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 3	Expect basic reason(s) for named migration flow stated or an explanation of push-pull model.
Level 2	4 - 6	Gives a clear consideration to motivation to re-locate, including some of the key advantages and disadvantages of the migration origin and destination.
Level 3	7 - 9	Offers a detailed discussion, including evaluation/assessment of the relevant push and pull factors. Expect a more balanced account of both advantages of the destination and disadvantages of the point of origin.

TOTAL: 30 MARKS

Question 13 – Development and human welfare

Question Number	Acceptable responses	Mark
13(a)(i)	C	**1**

Question Number	Acceptable responses	Mark
13(a)(ii)	A	**1**

Question Number	Acceptable responses	Mark
13(a)(iii)	Sri Lanka	**1**

Question Number	Acceptable responses	Mark
13(a)(iv)	for 1 mark expect outline but valid definition e.g. death of a child/infant for 2 marks expect full definition, including an age limit e.g. under-1s, under-5s (1 + 1)	**2**

Question Number	Acceptable responses	Mark
13(b)(i)	nations where business activity(1) is in the process of rapid growth/industrialisation (1)	**2**

Question Number	Acceptable responses	Mark
13(b)(ii)	any **two** of the following linked statements depending on the example selected (do not directly penalise candidates failing to identify one emerging economy – award max for sound but generic responses): the growth manufacturing (1) due to cheap labour the increased global demand for consumer goods(1) has led to industrialisation increased technology(1) has allowed natural resources to be exploited(1) the use of English as an international language(1) has enabled call centres to open (1) Do not credit response where example invalidates reason (e.g. China cannot yet claim good use of English, except in Hong Kong ..) (2 x 2)	**4**

Question Number	Acceptable responses	Mark
13(b)(iii)	any **two** of the following linked statements: high GDP of industry (1), development of service sector (1), low child mortality (1) because of health care (1), high literacy rate (1) because of formal education to age 16 (1) or similar plausible linked answers (2 x 2)	**4**

Question Number		Indicative content	
13(c)		An answer focussing on : • relief makes transport/communications difficult leading to poverty • the climate of an area may not be suitable for agriculture • little employment outside agriculture the incomes are usually very low • government policy by investing more in other regions • areas of civil unrest within a country causing low investment from companies • the closure of traditional industries causing long term unemployment	**6**
Level	Mark	Descriptor	
Level 0	0	No acceptable response	
Level 1	1 - 2	Gives a brief explanation of some of the reasons for differences. Likely to be generic, rather than for a named country.	
Level 2	3 - 4	Gives a clear explanation of some of the reasons for differences. Clearly linked to the named country.	
Level 3	5 - 6	Gives a detailed explanation of the reasons for differences. Detailed links to specific variations within the named country.	

Question Number	Indicative content	
13(d)	An answer which refers to : • a named LIC NGO project set in a location e.g. Oxfam HIV/AIDS project in South Africa .. • successes depending on project chosen e.g. appropriate development (food; appropriate technology ..); community-based; disaster relief; quality of life raised; long-term gains … • failures depending on project chosen e.g. extent of problem; insufficient finance; cultural clashes .. • some synthetic appreciation of project as "mixed blessing," the development problems it seeks to address and that peoples' views about its progress/outcomes vary If the named non-governmental aid agency project is not fully valid and is not clearly identified in the given place, but is so in the candidate's response, the mark scheme should be applied in the normal way. Where the project can at best be implied from the text or is only partly valid (e.g. no spatial context) then a max of Level 2 can be awarded. However, if the named non-governmental aid agency project cannot be identified from what the candidate has written, but is about aid projects in LICs generally and valid then no marks above Level 1 can be awarded. Creditable answers must be about LICs and LIC development issues; not HICs !	**9**

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1 - 3	Expect a brief identification of some the successes and/or failures of a specified project to improve the quality of life. Equally may be a generic response on the successes and failures of aid.
Level 2	4 - 6	Gives a clear consideration to the key successes and failures of the specified project. Clearly linked to a named non-governmental aid agency project in a specified location and the aid/development needs of LICs.
Level 3	7 - 9	Offers a detailed discussion of a range of successes and failures of a specified non-governmental aid agency project to improve the quality of life in a named location. Expect strong links to the specific project in case-study fashion and clear sense of both synthesis re the actual project and some realisation that views towards its outcomes/progress vary between people.

TOTAL: 30 MARKS

Further copies of this publication are available from:

Edexcel Publications
Adamsway
Mansfield
Nottingham
NG18 4FN

Tel: 01623 467467

Fax: 01623 450481

Email: Publication.orders@edexcel.com
Intpublication.orders@edexcel.com

For more information on Edexcel and BTEC qualifications
please visit our website: www.edexcel.com

Pearson Education Limited. Registered in England and
Wales No. 872828
Registered Office: Edinburgh Gate, Harlow, Essex CM20 2JE
VAT Reg No GB 278 537121

Publication code EC030048