



2012 Geography

Intermediate 2

Finalised Marking Instructions

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Geography

Intermediate 2

Section A

Question 1 – Physical Environments

1 mark for each correct answer

- (a) Intermittent drainage - 817155
Limestone pavement - 814175
Pot hole - 833164 **3 marks**

- (b) Water percolates through the dissolving calcium carbonate (1). As it drips from the roof of a cave (1) it evaporates slowly (1) leaving a deposit of calcite (1). This builds up over a long period of time to form a stalactite (1). Stalagmites are formed as drips fall on the cavern floor (1) but are wider as the drips splash outwards (1). Stalactites and stalagmites may join up to form a pillar (1).

Full marks awarded to diagram(s) that clearly illustrate/explain formation. **4 marks**

- (c) Answers may include:

River flows south (1); changes direction to flow west/southwest (1); river in its middle course (1); a number of tributaries join from both sides (1); meandering river (1); waterfall (1), at 843133 (1); river less than 10 metres wide (1). Wide valley floor (1); steep valley sides (1); u-shaped valley (1).

For full marks, both river and valley must be mentioned.
Max 1 mark for correct grid reference. **4 marks**

- (d) Higher ground allows people to go hill walking (1); steep slopes allows people to ski (1); limestone allows people to go caving or pot holing (1); steep limestone faces allow rock climbing (1); the river could be used for boating activities (1); people may wish to view the limestone scenery (1); woodland for forest walks (1).

Accept any other relevant point **5 marks**

- (e) Military/Tourism or Leisure and Recreation – Tourists/visitors may be restricted from visiting certain areas (1); noise from military operations may disturb visitors (1); military vehicles and tourist traffic may result in serious traffic congestion (1).

Farming/Tourism or Leisure and Recreation – walkers with dogs may worry sheep (1); tourists leave gates open allowing animals to escape (1) and drop litter which animals may eat (1). Farmers may restrict access (1).

Farming/Industry – noise from industry could disturb farm animals (1); outputs from industry could damage crops (1).

Accept any other relevant point **5 marks**

- (f) RSPB – protect and manage habitats for birds and other wildlife (1); recovery projects for threatened species (1); own and manage nature reserves (1); tackle wildlife crime and habitat loss (1).

Heritage Coasts – to protect coastlines of special scenic and environmental value from undesirable development (2).

SSSI's – protect wildlife and geology sites (1); eg wetlands, heathlands etc (1).

NNR's – protect a range of wildlife and landscapes, including rare species and habitats (2).

National Trust – protection of forests, woods, beaches etc... (1). Educating public (1)

SNH – promote care for the environment (1); help people to enjoy the environment responsibly (1).

Or any other relevant point.

4 marks

Total 25 marks

Question 2 – Human Environments

- (a) For full marks reference to both human and physical must be made, otherwise mark out of 4.

Some areas have rich natural resources to be used (1) and this attracts people in (1). Some areas have many jobs available (1). Some areas have very good transport and are easy to get to (1). Some areas have a temperate climate (1), which allows many crops to be grown (1). High birth rate (1).

Or any other relevant point

5 marks

- (b) China used the one child policy to help reduce growth (1). Indonesia introduced more free contraception (1). Some countries have used sexual education (1). Some countries use tax incentives to encourage smaller families (1). Increased level of education (1).

Or any other relevant point

4 marks

- (c) If no named city mark out of 4.

Glasgow has landscaped older housing areas (1). They have renovated old tenements (1). New housing such as at Glasgow Harbour (1) has been put in place. Transport has been improved like the Partick Interchange (1). Tourist developments have been put in (1). Small industrial units have replaced the older industry (1).

Or any other valid points

5 marks

- (d) People move into cities to seek work (1). They leave rural areas which have few schools (1). They go to cities to get better health services (1). Younger people leave rural areas as they are attracted to shops/services in urban areas (1). They leave rural areas because of natural disasters (1). They leave rural areas due to under-employment (1).

Or any other valid points

6 marks

- (e) Some councils have built planned estates at the edge of town (1). Transport links can be easier (1). There is room to expand (1). The environment is more pleasant (1). Avoids inner city congestion (1). Land is cheaper (1).

Or any other valid points

5 marks

Total 25 marks

Section B

Question 3 – Rural Land Degradation

- (a) Large areas are being cleared by timber companies (1); timber is being sold for export (1); forest is being cleared for settlement (1) and farmland (1) due to expanding populations (1) to increase food production (1); forest also destroyed due to mineral extraction (1) and for HEP schemes (1).

Or any other valid point

4 marks

- (b) (i) People – unable to grow any food (1); may become too weak to work (1); more susceptible to disease (1); may result in migration to other areas (1).

Landscape – land may become useless for farming (1); soil gets eroded (1) winds can blow it away (1).

Or any other valid point

For full marks both people and landscape must be mentioned.

5 marks

- (ii) Methods might include – contour ploughing (1); stone lines (1) to reduce run-off (1); crop rotation to retain nutrients (1); planting drought resistant species (1); fencing off overgrazed areas (1); re-afforestation to reduce soil erosion (1).

Or any other valid point

6 marks

Total 15 marks

Question 4 – River Basin Management

- (a) Area – large basins have more water flowing through them (1) and will be able to store more water (1).

Shape – steep river basins will have faster run-off than other gentler sloping basins (1).

Rock type – impermeable rock reduces infiltration (1) and allows more storage (1).

Precipitation – areas with higher precipitation will have increased flow and transfer (1) and greater potential for storage (1).

Surface features – vegetation such as trees increases interception (1).
Urban areas increase run-off (1).

5 marks

- (b) (i) If all three benefits not mentioned mark out of 5.

Social – people’s standard of living increased (1) due to regular water supply (1) and electricity (1). Increased overall wealth (1).

Economic – HEP produced for industry (1) which creates more jobs (1).
Tourism increased by water activities on lakes (1). More food production due to irrigated farmland (1).

Environmental – less flooding of low-lying areas (1). New wildlife habitats created (1).

Or any other valid point

6 marks

- (ii) Political problems between countries because water is shared (1).
Some countries may have less water (1). Areas of settlement may be flooded (1) and existing farmland lost (1). Loss of fertile silt deposits in the lower course (1). Wildlife habitats may be destroyed (1).

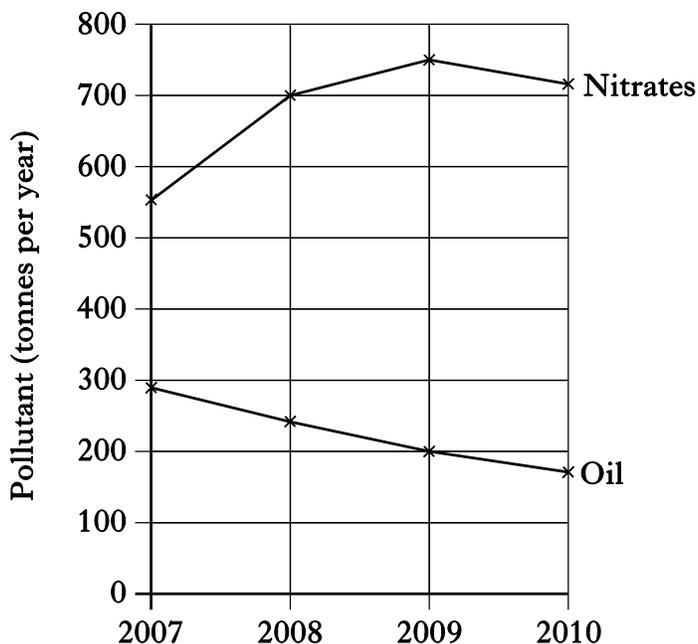
Or any other valid point

4 marks

Total 15 marks

Question 5 – European Environmental Inequalities

- (a) (i) Line Graph: 1 mark for correct scale, 1 mark for plotting and joining points correctly, 1 mark for key/labels.



3 marks

- (ii) The pollution caused by oil has decreased between 2007 and 2010 (1) by 120 tonnes (1). This has been a steady decrease (1) falling by 30-50 tonnes each year (1). On the other hand, the levels of pollution caused by nitrates has increased for most of the time (1), with the exception of between 2009 and 2010 when it fell by 40 tonnes (1). The biggest increase in nitrate pollution was between 2007 and 2008 (1) when it rose by 150 tonnes (1).

Or any other relevant point

3 marks

- (b) (i)** Less developed mountain areas eg NW highlands of Scotland have a cleaner environment because of very little commercial development (1), the area is very remote and difficult to access (1), roads are poor (1) and the weather is unpredictable (1).
More developed mountain areas eg Val d'Isere – more regular snow cover in winter (1).
Allows development of ski-resorts (1) to cater for a larger population (1) therefore the area has more traffic (1) and noise/litter pollution (1). The scenery will be less attractive due to unsightly developments (1).
Less developed coastal eg NW coast of Scotland – the weather can be poor (1) and it is difficult to get to (1) so settlement is limited (1) with few large commercial developments (1) therefore the environment will be much less polluted (1).
More developed coastal – eg Costa de Sol – guaranteed sun and warm weather (1). Large beaches (1) creates large resorts (1) eg Benidorm (1). There will be more pollution (1) due to litter/ sewage/traffic etc (1). The natural beauty of the coastline will be destroyed (1).

Or any other valid point

5 marks

(ii) eg coastal area

The government can encourage tourists to visit inland areas to reduce pressure on coastal areas (1). New sewage treatment plants provided (1). Fines for littering and dog fouling (1). Legislation to prevent dumping of waste at sea (1). EU Blue Flag scheme to encourage clean beaches (1).

eg mountain areas

Create National Parks (1) to control new developments such as quarrying (1). Honeypot strategy to manage popular areas and reduce pressure elsewhere (1). Ask public to take litter home (1). Close off eroded areas (1) and resurface footpaths (1). Educate the public via visitor centres to take care of the environment (1).

Or any other valid point

4 marks

Total 15 marks

Question 6 – Development and Health

- (a) Some countries are more developed than others because they have a better education system (1). This will mean that they have a more skilled workforce (1) and so greater production levels (1) feeding into the economy. Some countries have manufactured goods which are worth more money (1). Some countries have higher literacy levels which indicates better education (1) and may result in the population having better paid jobs (1). Some countries are more developed as they have better health care (1) which results in fewer endemic diseases (1) and so the majority of the population can work and contribute to the economy (1) or farm the land to produce food (1). More developed countries tend to have less extreme climates which are more suited to farming (1) and so do not have to import food (1). Countries may be more developed because they do not suffer from floods or drought which would affect farming and food production (1). Some countries have natural resources (1) such as oil (1) which can be sold to other countries (1). Other countries are very large which makes areas of the country difficult to access and so will not attract infrastructure or roads (1), eg Brazil which has rainforests (1).

Or any other relevant point.

6 marks

- (b) (i) **eg Cholera**
Cholera is caused by a bacteria called *Vibrio cholerae* (1), when this bacteria is passed into the stomach they accumulate and produce poisonous toxins (1). The disease is transmitted through contact with dirty water (1) and inadequate sanitation (1). Water for drinking which comes from a source contaminated with faeces (1) carries the bacteria. Thus it can be spread by drinking this dirty water (1), or using it for cooking (1). Any fish or shellfish eaten from such a dirty source of water may also be contaminated by the bacteria (1) and so is spread once eaten (1). Lack of simple hygiene such as washing hands after the toilet also helps spread the disease (1).

eg AIDS

AIDS can be spread by sharing needles with an infected person (1) and also by having unprotected sex with an infected person (1). It can be spread to babies who are breast fed if their mother has AIDS. The spread of AIDS is prevalent in countries where civil war has broken out (1) due to rape and sexual assault (1), for example, African countries such as Rwanda and the Democratic Republic of Congo (1). The spread of AIDS is also hastened by lack of education which means many people are unaware of the causes of the disease (1). Lack of primary health care is also a contributory factor as many people are unaware of prevention methods (1).

Or any other relevant point

5 marks

(ii) eg Malaria

Drugs are used to kill the parasite (1) eg artemisinin based drugs or larium or malarone (1). Insecticides are used to kill the mosquito (1) eg DDT (1). Swampy areas and stagnant water can be drained as this kills the immature larvae (1). Bed nets with insecticide (1) prevent the mosquito biting whilst people are sleeping (1). Education via primary health care (1) can help people to identify the risks associated with malaria and thus prevent catching it in the first place (1).

Coconut shells can be placed in areas of water, the bacteria (bti) inside (1) kills the mosquito larvae (1). Fish such as Nile Tilapia can be put into paddy fields to eat mosquito larvae (1). New vaccine RTS,S (1).

4 marks

Total 15 marks

Question 7 – Environmental Hazards

- (a) (i) The Haiti earthquake was caused by plate movement along the boundary between the Caribbean and North Atlantic plates (1). These plates are sliding past each other (1) but sometimes get stuck and friction builds up (1). When the plates suddenly jerk free the movement creates an earthquake (1). Reference to weakness in the crust at plate boundaries can also be credited.

Or any other relevant point.

3 marks

- (ii) Mark out of 4 if landscape AND people are not answered.

Earthquakes can cause landslides and mudslides (1) which can result in villages and farmland being swept away (1). Roads and railway lines can be buckled by the shock waves (1) and telephone lines knocked down (1). Houses and buildings can collapse (1) and gas pipes can be ruptured (1) and electricity cables snapped (1) leading to widespread fires (1). Earthquakes can damage water pipes which means there may be limited water for fighting fires (1). Shockwaves may cause tidal waves (1) which will damage or destroy buildings along the coast (1). Thousands of people may be killed by an earthquake (1) and many more left homeless (1). Many people may be trapped under rubble (1) or buried alive by landslides (1). Disease may spread quickly resulting in further deaths (1) and lack of medical care will also lead to further deaths (1). Shops and offices may be destroyed which will lead to many people being out of work and not earning money (1).

Or any other relevant point

5 marks

- (b) (i) **eg Hurricane Mitch**
The methods used to predict hurricane Mitch included weather stations on land and at sea (1) and also aircraft (Hercules) which are especially equipped to fly into hurricanes and send data back to land (1). There were computer systems used to predict its course based on stored information from previous hurricanes (1). However, Hurricane Mitch proved very difficult to forecast where it would hit land as it changed its track often and very suddenly (1). Due to the inaccurate predictions a warning was issued to all of Central America (1) this led to problems such as petrol shortage in Belize (1) but it allowed Honduras to evacuate 10 000 people (1) and so saved many lives (1).

Or any other relevant point

No mention of effectiveness – mark out of 3

4 marks

- (ii)** Long-term aid is very important in helping to rebuild a country after a tropical storm (1). Long-term aid is used to help build new homes, hospitals and roads (1). This can be in the form of money or building materials (1). The United Nations provided seeds and fertilisers (1) after Hurricane Mitch to help restore farming in rural areas and also to support the rural economy (1). Farming tools were also supplied (1). Without long-term aid people can remain in temporary accommodation such as tents for a very long time (1). Long-term aid helps people to get back to work (1) and jobs are provided in the rebuilding process (1).

Or any other relevant point.

3 marks

Total 15 marks

[END OF MARKING INSTRUCTIONS]