



2009 Geography

Intermediate 2

Finalised Marking Instructions

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Physical Environments

Question 1

- (a) A: Peak District
B: Burren
C: Brecon Beacons **3 marks**

- (b) (i) Limestone pavement 903647
Gorge 914638
Shake hole 872662
Pot holes 873647

Mark 4 = 4, 3 = 3, 2 = 2, 1 = 1 **4 marks**

- (ii) Example: Limestone pavement

Limestone made from decayed remains of skeletons and sea creatures (1); laid in horizontal layers on sea bed (1); sedimentary rocks uplifted (1); overlying rock removed by glaciation (1); cracks appear as rock dries out (1); cracks widened into grykes by chemical weathering (1); limestone dissolved by acid rainwater (1); clints upstanding blocks (1).

Credit should be given for appropriately annotated diagrams. **4 marks**

- (iii) Answers may include:
No marks for grid references.

It is a low route through a hilly area (1); it passes a number of attractive tourist features(1) eg Malham Cove (1); it passes a number of ancient settlement sites (1); eg hut circles and field systems (1); services available in Malham (1).

Or any other valid point. **4 marks**

- (c) If no area named, mark out of 5. Mark 2:4, 3:3, 4:2
Maximum of 5 marks if only one land use mentioned. For full marks answers must refer to benefits and problems.

- (i) Economic

For tourism and recreation and leisure visitors spend more money (1); local people have more jobs (1); Local people therefore have more money to spend (1); multiplier effect (1); industry/military can also bring in more money/jobs (1).

Environmental

Tourism/recreation can result in erosion (1); noise pollution (1); traffic congestion (1); litter (1); military can limit freedom of people to go where they want (1); industry can cause visual pollution (1); wildlife habitats destroyed (1).

Or any other valid point. **6 marks**

- (ii)** Local authorities/NP authorities fined for litter or dumping (1). NP authorities can fence off eroded areas (1). Voluntary litter picks in honey pot areas (1). Council can arrange with military to cease activities on public holidays (1). National Trust conservation areas set up (1).

Or any other valid point.

4 marks

Total marks = 25

Human Environments

Question 2

- (a) (i) Bigger % males in 20-35 age groups in Urban area (1). Fewer females in 20-35 groups in Urban area (1). Bigger % of female in 60+ groups in Rural area (1). Smaller % of children up to 14 in urban areas (1). Credit references to birth and death rates (1).
Or any other valid point. **3 marks**
- (ii) Emigration of young males to cities to find work (1). Women more likely to stay at home to look after family (1). Return home of some workers to rural area after living in the city (1). Elderly people staying in the rural area as did not want to move away (1). Higher birth rate in rural areas (1). Children can work on farms (1). Children to look after older parents. **4 marks**
- (b) EMDCs have child inoculation programme (1). EMDCs usually have more doctors per head of population (1). EMDCs have specialist child care maternity units (1). EMDCs have better access to post natal care (1). EMDCs have better equipped hospitals (1), better overall standard of living (1)...etc. **3 marks**
- (c) Mark out of 4 if no named city.
City councils improving sanitation (1). Installation of clean water (1). Improving quality of housing (1). Organising rubbish collection (1). Giving squatters legal ownership of land (1). Planning new settlements eg Navi Mumbai (1). Self help schemes (1). Provision of electricity (1). **5 marks**
- (d) For full marks both benefits and problems must be mentioned.
Mark 3:2, 2:3
Benefits include increased crop yields (1). Better profits for some farmers (1). Less physical work for people (1). Problems include fewer jobs for people (1). Expense of machines (1). Machines need repairs costing more money (1). Fertilisers increase risk of pollution (1). **5 marks**
- (e) For full marks both advantages and disadvantages must be mentioned.
Mark 3:2, 2:3
Plenty of parking space (1). Near to main roads (1). Many services in one location (1). Reduces congestion in city (1). Existing shops in CBD suffer (1). Creates extra traffic at edge of town (1). Uses up Green Belt (1).
Or any other valid point. **5 marks**

Total marks = 25

Rural Land Degradation

Question 3

- (a) (i) There is no rainfall for 5 months (1). For 5 months a year the soil will be very dry (1); this makes it very susceptible to wind erosion (1); with little plant growth in this period, this will increase the risk of soil erosion (1); when the rains do come in April/May the soil will be easily washed away (1); will be increased with intensity of rainfall from June to September (1). **3 marks**

- (ii) Answers should include some detail of methods used, but, for full marks, should also have some mention of the degree of effectiveness eg:
In Niger, tree nurseries were established (1). This has resulted in afforestation programmes, which has helped to hold the soil in place (1). People are being educated about alternative sources of income (1). This has generated additional income (1), which has allowed some groups to send their children to school (1). Better quality breeds of livestock have been introduced (1). People now see the benefits of having smaller numbers of better quality cattle (1). **4 marks**

- (b) (i) Answers may include:

Removal of forest cover exposes soil to heavy rainfall (1); which can wash soil away (1); monoculture can result in loss of soil nutrients (1); Removal of trees means roots no longer able to hold soil in place (1); soil becomes leached (1).

Accept any other valid point.

4 marks

- (ii) Answers may include:

Friends of the Earth persuade people not to buy rainforest products (1); World Bank may refuse funding for development in rainforest areas (1); they could help forest villages to set up tree farms (1); Organisations such as Greenpeace act as pressure groups (1) which try to influence government actions (1); World Wide Fund for Nature takes an active role encouraging public support for the protection of forested areas (1). Local/Government strategies accepted.

4 marks

Total marks = 15

River Basin Management

Question 4

- (a) Rock that is impermeable will store water (1). Areas of high rainfall will have water to store (1). Areas that have many tributary rivers may be better than ones with few (1). Area with narrow V shaped valleys suitable for dam building (1). Large catchment area with plenty of water better suited to development (1). **4 marks**
- (b) Answer will depend on river basin chosen eg
More people now have access to clean water (1). Farmers have regular supply throughout the year (1). Increased crop production (1). Power supply for industry (1). More tourism brings money for local people (1). Power also in more homes (1). Jobs created for some local people (1). Reduced risk of flooding (1). **4 marks**
- (c) (i) Farmers need water for irrigation (1) or animal needs (1). Tourists look to use water for recreation eg canoeing/speed boating (1). Industry needs water for manufacturing (1) and for power supply (1). **4 marks**
- (ii) Countries can disagree about water use (1). Countries can pollute a river that then flows into another country (1). Water could be stopped from flowing from one country to another (1). Arguments over who pays for clean up of pollution (1). **3 marks**

Total marks = 15

European Environmental Inequalities

Question 5

- (a) For full marks candidates must refer to both economic and social factors, if not maximum of 4 marks.

Social: Coastal areas attract large numbers of tourists (1) who drop litter (1) and erode paths and dunelands (1). Sports activities such as jet skiing create noise pollution (1).

Economic: Flat coastal areas are prime sites for large industrial development (1) such as steelworks, chemical works or car factories (1). This causes visual pollution (1) and water pollution from heavy metals (1). The transfer of oil by ship can lead to spillages (1). Overfishing can change the marine ecology (1).

Or any other valid point.

5 marks

- (b) Rivers which flow through industrial regions are more polluted (1) due to industrial waste and chemical spills (1). Rivers in intensive agricultural areas may be polluted by run-off containing chemical fertilizers or pesticides (1). Rivers flowing through large urban areas will be affected by domestic waste and sewage (1).

3 marks

- (c) (i) eg coastal areas
The government could encourage tourists to visit inland areas to reduce pressure on coastal regions (1). Money could be provided for new sewage treatment plants (1). More laws and fines for littering (1). Legislation preventing the dumping of industrial waste at sea (1). EU Blue Flag scheme for clean beaches (1).

eg Mountain area

Declare National Park status (1) to control future developments such as quarrying (1). Honeypot strategy to manage busier locations and reduce pressure on other areas (1). Close off eroded areas (1) and re-surface footpaths (1). Educate the public – posters, leaflets – about protecting the environment (1).

Or any other valid point.

4 marks

- (ii) Candidates must evaluate specific strategies eg the EU Blue Flag Scheme has meant that many beaches are much safer and cleaner (1). New regulations on sewage disposal have improved the quality of Scottish beaches (1). National Park Authorities have more control over new development (1) but conflicts still arise between different interest groups in such areas (1).

Or any other valid point.

3 marks

Total marks = 15

Development and Health

Question 6

- (a) (i) As average income rises, life expectancy increases (1). Countries such as Spain have an average income of \$25000 and their life expectancy is over eighty years (1).

Angola has a life expectancy of 41 and its average income is only \$1500 (1).

Although Botswana has higher income than Angola its life expectancy is lower (1).

3 marks

- (ii) They don't focus on only one aspect of the country (1). They combine both human and economic factors (1) and produce a more realistic picture of a country's well being (1). Single indicators are only averages and don't allow for difference within the country (1) and don't give enough information on the quality of life (1).

4 marks

- (b) (i) Heart disease – inability to work (1) and lower life expectancy (1). Increased health costs (1), more hospital beds needed (1). Children can inherit heart disease from parents (1).
Malaria – large numbers of children die at an early age (1), adults unable to work (1), lower productivity (1), limited resources used up on health care (1) hindering development (1).

Or any other valid point.

4 marks

- (ii) Heart disease – people are now eating a better diet (1), the amount of milk, butter and other fatty products has dropped (1) while the sale of fruit and vegetables has increased (1). The smoking ban has reduced smoking levels (1) and cut down on passive smoking (1). There are more regular check ups (1) and more advanced treatment (1) such as by-pass surgery (1) etc.

Malaria – Drugs are too expensive (1) and the parasite has become resistant to them (1). Insecticides are also expensive (1) and pollute the environment (1). Draining all breeding areas is impractical (1). Bed nets are cheap and quite effective (1). New treatments have been developed which seem to be more effective (1) such as artemisinin/ACT (1). The rate of malaria infection worldwide is still increasing (1).

Or any other valid point.

4 marks

Total marks = 15

Environmental Hazards

Question 7

- (a) In some places the earth's tectonic plates move towards each other (destructive margins) (1) forcing the crust down into the mantle (1) where it melts, rises to the surfaces and forms a volcano (1). In other places the plates slide slowly past each other (1) releasing sudden bursts of energy (1) which cause earthquakes (1). **3 marks**

- (b) (i) Volcanic eruptions – monitor seismic activity (1), watch for changes in gas levels (1) bulges in the mountainside (1) or unusual wildlife behaviour (1). Earthquakes – use laser equipment to detect land movement (1). Sound equipment to detect tremors (1). Examine previous patterns of earthquake activity (1). **3 marks**

Mark 1:3, 2:2 or 3:1

- (ii) Short term – emergency medical for those injured (1) tents and blankets to provide shelter (1) bottled water as supplies will be cut off (1) moving equipment and sniffer dogs to locate those trapped in fallen buildings (1). Long term – Money needed to repair infrastructure (1) eg roads, electricity supplies, water systems (1).

Or any other valid point.

4 marks

- (c) **No reference to a specific tropical storm – mark out of four.**

Tropical storms cause widespread flooding (1) and destroy farmland (1). Trees are knocked over (1) and heavy rain washes away soil (1). Many people are made homeless (1). Power lines, bridges and roads are destroyed (1). Water and sewage problems cause outbreaks of disease (1). Economic development is badly affected (1) and national debt increases due to the cost of repairs (1).

For full marks effects on landscape and people must be mentioned.

5 marks

Total marks = 15

[END OF MARKING INSTRUCTIONS]