



2010 Geography

Intermediate 2

Finalised Marking Instructions

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Physical Environments

Question 1

- (a) A: Loch Lomond and/or Trossachs
B: River Tay
C: Buchan (accept N.E. Scotland) N.E. Coast, Moray Coast

3 × 1 mark

3 marks

- (b) (i) Truncated spur 135057
Arête 206068
Corrie 159103
Hanging valley 183097

4 × 1 mark

4 marks

- (ii) As the glacier moves down the valley (1) it deepens and widens the valley (1) by plucking and abrasion (1). Terminal moraine may be deposited at the end of the glacier (1). This moraine prevents water from draining away, forming a ribbon lake (1).

For full marks, formation of the lake must be mentioned. If not out of (3). (3) for V-Shaped valley.

Credit should be given for annotated diagrams.

4 marks

- (c) Accept up to 1 mark for a correct grid reference.
For full marks candidates must describe the river and its valley, otherwise mark out of three.

The River Calder at 064103 is narrow/straight (1) and fast flowing (1) in a southerly direction (1) through a steep sided V-shaped valley (1). It is joined by a tributary (Worm Gill) at 066090 (1). The river then flows south west (1) and becomes wider (1). It meanders slightly (1) over a narrow flood plain (1). The river has two islands/eyots (1) in 0608 (1). The valley becomes wider (1) and its side less steep (1) as it approaches Calder Bridge.

Or any other valid point.

4 marks

- (d) eg tourism causes problems with increased litter (1), traffic congestion at peak periods (1), footpath erosion in popular walking areas (1).
Farming activities are often in conflict with walker's rights of access (1) walkers leaving gates open (1), dogs chasing sheep (1), stone walls damaged (1), etc.
Industry/quarrying creates air and noise pollution (1), heavy traffic on narrow roads (1) and spoils the appearance of the scenery (1).
Commercial forestry is unpopular as it looks unnatural (1) and may restrict access for walkers (1).

Or any other valid point.

6 marks

- (e) Planning permission for developments which may cause conflict can be refused in National Park areas (1). Different recreational activities may be zoned (1) such as waterskiing and sailing (1). Park rangers are employed to prevent problems developing (1). Visitor centre staff aim to educate the public about the “Countryside Code/Outdoor Access Code” (1). One-way systems, pedestrianised areas (1) and improved public transport (1) are introduced to reduce the effect of traffic congestion (1). Voluntary bodies such as the National Trust protect areas by buying land and buildings (1), maintaining walls and footpaths (1), and protecting important wildlife habitats (1).

Or any other valid point.

4 marks

Total marks = 25

Human Environments

Question 2

- (a) (i) In 1950 population growth rate was approx 1.7% (1), it then went up to 2%, in 1960s and 70s (1), it then fell from 70s to 80s (1), then steadied during 80s (1) but since then has fallen (1) and is projected to fall further (1). **3 marks**
- (ii) If no difference mentioned max 5 marks.
1 mark for difference – population growth in EMDC hardly changing whereas in ELDCs rapid growth.
EMDCs are predicted to hardly change, this is because of increased use of family planning (1), less desire for large families (1), later marriages for women (1). ELDCs are continuing to grow due to need for families to look after elderly (1), bring in money for family (1), lack of education on family planning (1).
- Do not have to give both ELDC and EMDC.
- Or any other valid point. **6 marks**
- (b) Max 1 mark for explanation.
Kenya – majority of the population are under the age of 15 (1), population numbers decrease as age increases (1), smaller numbers of people found over 60 (1). Nearly 7% under 4 years of age (1). Low life expectancy (1) high degree of juvenility (1) older males living longer than females (1).
- Italy – largest number of people are in the economically active ages (1), fewer young people under 19 (1), more women than men (1), increased numbers of elderly population (1). % of young people drops dramatically (1).
- Or any other valid point. **4 marks**
- (c) Examples may come from ELDCs and/or EMDCs.
Some farmland is lost to new housing developments (1). There is increased traffic on the roads during peak times (1). Commuter villages grow in size (1) and there is often an increase in house prices in rural areas (1). Young people from the rural area move away as they cannot afford the houses (1). Some local services are lost as urban commuters do not use them (1). Wildlife pushed further back into rural areas (1). Pollution (1).
- Or any other valid point. **4 marks**
- (d) Indian farmers started to use HYV of rice (1). Farmers are using more fertilisers to help crops (1). Machinery has increased efficiency (1). Land reform has made bigger farms (1).
- Or any other valid point. **4 marks**
- (e) Labour is cheaper (1) which reduces overall costs of product manufacture (1). Workforce is motivated (1). There are fewer industrial disputes (1). Transport infrastructure is very good (1). Government will help with initial set up costs (1). Close to large markets (1) eg China or India (1).
- Or any other valid point. **4 marks**

Total marks = 25

Rural Land Degradation

Question 3

- (a) (i) 1 mark for comparing statements: max 1 mark for %.

The Philippines has lost the greatest amount of its forest cover (1), 32% (1) Indonesia, Nepal and Cambodia have lost 20% or more (1). Vietnam has increased its forest cover by the largest amount (1), 38% (1). China and India have also increased their forest cover (1) etc.

4 marks

- (ii) Large areas have been cleared by timber companies (1) and hardwood is sold to other countries (1). Forest has been cleared for settlement (1) and new farmland (1) due to expanding population (1) and to increase food production (1). Forest is also destroyed due to mineral extraction (1).

Or any other valid point.

4 marks

- (b) Mark 3/1: 2/2:1/3

Physical – drought conditions cause vegetation to die (1) and soil to dry up (1). Dry soil is blown away by high winds (1) as there are no roots to bind the soil (1). Seasonal rains can also wash away fragile soil (1) causing gullying (1).

Human – overpopulation puts pressure on farmland (1). Trees are cut down for firewood (1) and to make new farmland (1). Overgrazing damages the vegetation (1). Monoculture weakens soil structure (1) making it less fertile (1).

Or any other valid point.

4 marks

- (c) Strategies include: contour ploughing (1) and stone lines (1) to reduce runoff (1), crop rotation (1), planting dune areas with drought resistant species (1), fencing off overgrazed areas (1), reforestation (1).

Or any other valid point.

3 marks

Total marks = 15

River Basin Management

Question 4

- (a) The rock type can affect water storage (1). Permeable rock is not suitable as water will drain away (1). Impermeable rock will hold water and prevents seepage (1). Steep sided valleys are good to help dam construction (1). Areas with high rainfall will provide adequate water supply (1).

Accept descriptive and explanatory points.

Or any other valid point.

4 marks

- (b) Answer will vary depending on project chosen.

- (i) Project was needed to help prevent flooding (1). Dam provided HEP (1). Irrigation water was available (1). River was controlled (1).

4 marks

- (ii) Local people lost homes (1). Local wildlife was endangered (1). Increase in disease in some places (1). Loss of fishing (1).

Or any other valid point.

3 marks

- (c) Both economic and social must be mentioned for full marks.

Economic – increased power for industry (1). Industry attracted to area (1) and jobs created (1). Improved river navigation (1). Irrigation for farming (1).

Social – electricity for housing (1). Improved water supply (1). Improved amenities for local people – more shops/services due to tourism (1). Jobs created (1).

Or any other valid point.

4 marks

Total marks = 15

European Environmental Inequalities

Question 5

- (a) (i) Most of the rivers flow to the north and west (1); one flows to the east (1); two flow into the North Sea (1); one flows into the English Channel (1); one flows into the Bay of Biscay (1); two flow into the Atlantic Ocean (1); three flow into the Baltic Sea (1); one flows into the Black Sea (1).

Any general description is acceptable.

Also accept reference to areas with very few rivers.

Or any other valid point.

3 marks

- (ii) 5 marks for either farming or industry

Farming can wash fertilisers and pesticides (1) into rivers. Industrial waste can be pumped into rivers (1). Fall-out from air pollution can also enter rivers (1). Discharge from oil industry/pipeline etc (1). Chemical dumping (1).

Or any other valid point.

5 marks

- (b) (i) Stricter controls on factory emissions (1); fines for companies which break rules (1); reducing the use of cars (1); encourage car sharing (1); improved public transport services (1); improve the efficiency of vehicle engines (1); discourage single use of cars (1); air filters on industrial chimneys (1); use of catalytic converters (1); congestion charges (1); reduction of SO₂ emissions (1); reduction of coal and oil fired power stations (1).

Or any other valid point.

4 marks

- (ii) Park and ride systems around cities have met with some success (1); too many people still enjoy the use of their own car (1); more people using bicycles (1).

Or any other valid point.

3 marks

Total marks = 15

Development and Health

Question 6

- (a) Climate – certain climates can limit development of a country eg hot dry climates (1); cold climates (1); high humidity (1).
- Relief – development encouraged with low-lying flat land (1); high altitude can make development difficult (1); mountainous areas can make transport difficult (1).
- Resources – countries with plenty of resources can develop industrially (1); they can also make money from trading (1).
- Environment – rainforest (1), hot desert (1) or cold desert areas will be difficult to develop (1). Development is easier in temperate areas (1).
- Natural Disasters – countries not liable to natural disasters will be easier to develop (1) natural disasters cost countries money to re-build (1).

More than one physical factor should be mentioned for full marks.

4 marks

- (b) (i) Biggest problem in southern Africa (1); Central Africa also a significant problem (1); Eastern Europe (1); and Russia (1); also in south-east Asia (1).

Credit should be given for any named countries.

4 marks

- (ii) **AIDS** – introduction of health education programmes (1); compulsory testing of people (1); increase the availability of ARV drugs to treat the disease (1); distribution of free condoms (1); use of radio and TV to get the message over (1).

Heart Disease – increased funding of research into the disease (1); encourage people to eat more healthily (1); encourage people to take more exercise (1); stop-smoking campaigns (1); educate people on how to reduce stress levels (1); encourage people to have regular check-ups (1) for cholesterol (1) and blood pressure (1); increased use of technology eg pacemakers (1); drugs (1).

Or any other valid point.

4 marks

(iii) **AIDS** – drugs available but not enough trained staff in developing countries (1); many isolated areas which are difficult to reach (1); many people not aware they have the disease (1); testing facilities poor (1); some people try to avoid being tested (1); some drugs too expensive (1); education campaigns difficult due to illiteracy (1) and different dialects and languages (1).

Heart Disease – evidence that better diet is working (1); decrease in consumption of butter and full milk (1); people are eating more fruit (1); evidence that people are still not taking enough exercise (1); numbers smoking has now decreased (1); no evidence that stress levels are decreasing (1); people appear to be getting more regular check-ups (1).

Or any other valid point.

3 marks

Total marks = 15

Environmental Hazards

Question 7

- (a) Track SE to NW (1), crossing the Tropic of Cancer (1) heading toward SE USA (1), or any other valid point. **3 marks**

- (b) Credit annotated diagram.

Sea temperatures must be over 27°C (1); low atmospheric pressure (1); spiralling winds (1); large expanse of water is needed (1); rising air (1). Location between tropics (1). **4 marks**

- (c) (i) Landscape and population must be mentioned for full marks.

Buildings destroyed (1); villages cut off (1); lines of communication destroyed (1); landslides (1); fires may break out (1); severed water pipes (1).

People killed/injured (1); people buried alive (1); outbreak of disease (1).

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

- (ii) Better building techniques (1); improved methods of prediction (1); monitoring of active earthquake zones (1); use of tiltmeters to measure Earth movements (1); practising earthquake drills (1); improved preparation of emergency services (1).

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

Total marks = 15

[END OF MARKING INSTRUCTIONS]