



2007 Geography

Intermediate 1

Finalised Marking Instructions

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Geography

Intermediate 1

Physical Environments

Question 1

- (a)
- | | |
|------------------|------|
| Pyramidal peak | 6765 |
| Corrie with tarn | 6662 |
| U-shaped valley | 6461 |

1 mark for each correct answer

3 marks

- (b) A fully annotated diagram may be awarded full marks.

Pyramidal peak – corries develop on 3 sides or more (1), glacier/ice erodes backwall by plucking (1), making it steeper (1), arêtes formed at corrie sides by erosion (1), freeze thaw action shatters peak (1), making it a pointed shape (1). Or any other relevant point

Corrie/Tarn/Lochan/Cwm/Cirque – glacier/ice erodes by plucking at backwall (1), abrasion by ice at the base of the corrie (1), deepening hollow (1), rock lip formed at entrance (1), ice melts and hollow fills up with loch (1).

U-shaped valley – glacier/ice moves through former v-shaped valley (1), ice erodes valley floor (1) by abrasion (1), sides steepened by plucking (1), ice retreats/melts leaving U-shape (1).

- (c) Upland area – higher rainfall (1), U-shaped valleys good for storage (1), corries can be used as reservoirs (1), impermeable rock (1), not suited to farming (1), close to towns for water supply (1).
Accept negative points eg not suited to building.

Or any other relevant point

3 marks

- (d) Mark 3:1 2:2 1:3. For full marks both advantages and disadvantages must be mentioned.

Local people employed (1), brings money into the area (1), uses natural resources and saves on imports (1)

Locals upset by noise (1), air pollution (1), spoils scenery (1), upsets farm animals (1) leaves unsightly area (1) **4 marks**

- (e) (i) 3 x 1. All 4 correct 3 marks, 3/2 correct 2 marks, 1 correct 1 mark.

A = Stack

B = Cliff

C = Arch

D = Cave

3 marks

- (ii) 4 x 1

Waves smash against cliff (1), wear away/erode rock (1), soft rock eg clay erodes quickly (1), rock above collapses (1). Any reference to processes leading to formation of diagram features eg hydraulic action (1) or corrosion/abrasion (1). **4 marks**

Total marks = 20

Human Environments

Question 2

(a) (i) **3 marks 1 for stage, 2 x 1 for reasons**

Stage 2 (1 mark)
High steady BR (1)
Falling DR (1)

3 marks

(ii) **4 marks – 4 x 1 or 2 for developed point**

Pressure on agricultural land (1) and food supplies (1). Shortages of housing (1), growth of shanty towns (1) lack of medical care/doctors (1). High number of non-earning dependants (1), etc. Also accept positive points eg growing workforce (1), greater military power (1), etc
Or any other valid point
One mark for simple list of shortages.

4 marks

(b) **4 marks – 1 + 3, 2 + 2 or 3 + 1.**

Changes eg

Old housing demolished (1) and replaced with high rise blocks (1).
Heavy industries closed down (1). New road/motorway systems (1).
Construction of hotels, conference centres (1), etc
Or any other valid point

Explanation eg

Slum housing in poor condition (1), overcrowding (1), older industries inefficient (1), unable to compete with overseas competitors (1), high levels of traffic pollution (1) and congestion (1).
New tertiary industries (hotels) etc provide alternative employment (1).
Or any other valid point.

For full marks answers must include explanatory points

4 marks

(c) **4 marks – 4 x 1 (2 marks for developed point)**

More space for expansion (1), access to motorways (1), cleaner environment (1) close to university/research facilities (1), proximity to skilled workforce (1) wide range of leisure facilities (1), cheaper land (1).
Or any other point

4 marks

(d) (i) **2 marks – 2 x 1**

Yields correctly plotted (1) and line drawn accurately (1)

2 marks

(ii) **3 marks – 3 x 1**

Improvements in machinery (1), chemical fertilisers (1), high yield crop strains (1) as part of the “Green Revolution” (1). Fields reorganised and made larger (1), foreign aid (1) or any other valid point.

3 marks

Total marks = 20

Rural land Degradation

Question 3

(a) **3 marks – 3 x 1**

Both temperature and rainfall must be mentioned for full marks

High temperatures of 25-27°C (1), throughout the year. (1)

Temperature peaks in May (1)

High rainfall throughout the year (1) (average 200mm per month) (1)

Highest rainfall in January, November and December (1) 260mm (1)

3 marks

(b) **4 marks – 4 x 1**

Increased water run-off and soil erosion (1)

Destruction of wildlife habitats (1)

Traditional way of life destroyed (1)

Increased air pollution due to burning (1)

Or any other valid point.

Accept answers for other types of forest areas.

4 marks

(c) **3 marks – 3 x 1**

fences to stop animals – reduces overgrazing (1),

allows young plants to become established (1),

plant roots stabilise the sand (1) reducing dune movement (1).

Tree cover provides shade (1).

Or any other valid point.

3 marks

Total = 10 marks

Environmental Interactions

Question 4

(a) Completion of bar chart. Accurate drawing of two missing bars 2 x 1. **2 marks**

(b) **Mark 3:1, 2:2, 1:3**

Explanation needed

Farming – water needed for irrigation to grow veg. crops (1) and animal watering (1)

Industry – canning of fruits (1) HEP (1), industrial processes (1)

Power – industry (1), making HEP (1)

Sport & Recreation – water used in ski resorts for hotels (1), making artificial snow (1) kayak courses (1)

Or any other relevant point.

4 marks

(c) **4 x 1**

Answer may depend on river studied

Colorado – less flooding means farmland may be deprived of alluvium (1) and land becomes less fertile (1).

Dam construction and HEP schemes can cause visual pollution (1).

Wildlife may be affected eg spawning salmon moving upstream (1).

People may have to be moved out and re-settled (1).

Fertile lowland on valley floor is lost if reservoir is constructed (1).

4 marks

Total marks = 10

European Environmental Inequalities

Question 5

(a) Main concentration around the coast of Spain and Rhone delta (1). The Northern Adriatic Sea (1); and the west coast of Italy (1). Heavy pollution at large river mouths (1). Some pollution on north coast of Africa (1) **3 marks**

(b) Lower Rhine – this section of the river likely to be heavily polluted (1); large concentration of industry (1); waste from factories and ships (1); large urban concentrations leading to domestic waste (1); increased pollution resulting from a number of tributaries meeting (1).

Upper Rhine – less pollution here (1); little settlement or industry in this area (1); faster flowing water therefore less pollution (1); more natural landscape (1).

Maximum 2 marks for description. 4 marks

(c) Answers will clearly depend on the areas chosen
For sea/coastal areas, answers may include: – fines for companies found guilty of acts of pollution (1); closer monitoring of beaches (1)
For mountain areas: – restricted access to certain areas (1); education of visitors via notices (1); omission of sensitive areas from tourist literature (1); increased conservation eg maintenance of footpaths (1). **3 marks**

Total marks = 10

Development and Health

Question 6

- (a) (i) GDP per capita (1) **1 mark**
- (ii) China (1) **1 mark**
- (iii) GNP is very high compared to Malawi (1); life expectancy is much higher than Malawi (1); infant mortality is much lower than Malawi (1); birth rate is also much lower than Malawi (1). **2 marks**
- (b) (i) AIDS – HIV virus (1); exchange of bodily fluids eg blood, breast milk etc... (1); transfusion of contaminated blood (1); use of contaminated needles by drug users (1); unprotected sex (1).

Malaria – spread by female anopheles mosquito (1); bites an infected person before moving on to an uninfected person (1); requires temperatures of over 16 degrees C (1); breeds in areas of stagnant water (1); blood parasite (1). **3 marks**
- (ii) People less able to work (1); holds back economic development of the country (1); strain on the health service (1); discourages tourism within the country (1); other countries less likely to invest in affected country (1).
Or any other valid point. **3 marks**

Total marks = 10

Environmental Hazards

Question 7

(a) Volcanoes erupt along the edge of plate boundaries (1); melting of one plate due to friction (1) as it slides under another (1); can occur when plates move apart, together or slide alongside each other (1); magma rises to the Earth's surface (1). **4 marks**

(b) Storm tracking systems such as satellites (1); or radar (1); using historical records for prediction (1); monitoring of sea-surface temperatures and pressures (1); use of hurricane computer models (1). **3 marks**

(c) Answers should include a statement about the degree of effectiveness of the predictions. Examples might include – people able to evacuate the area safely (1); able to protect buildings against serious storm damage (1); reduced casualties/loss of life (1).

Accept both positive and negative answers. **3 marks**

Total marks 10

[END OF MARKING INSTRUCTIONS]