Mark Scheme (Results)

Summer 2008

IGCSE Geography (4370/2H)

Unit 4370 Paper 2H

1. Water

Question Number	Answer	Mark
1(a)(i)	Credit 1 mark per valid point (basic effect or data): e.g. discharge peak; • time lag; • 9 August; • 48 hrs (2 x 1)	1 1 1 1 (2)

Question Number	Answer	Mark
1(a)(ii)	Credit each measurement with 1 mark: • Stream depth; • stream width; • CSA; • velocity • rainfall (3 x 1) **Notes** • Discharge formula or automatic water level monitoring only = maximum 2 marks. • 1 mark maximum for rainfall and discharge only	1 1 1 1 1 1 (3)

Question Number	Answer	Mark
1(a)(iii)	1 mark for correct answer. • Valid definition e.g. area a stream drains **Notes** • Can be outline • Accept drainage basin	 1 (1)

Question Number		
1(a)(iv)		
Level	Mark	Descriptor
Level 1	1-2	expect graph reading i.e. impermeable/permeable noted; discharge differences identified. L1+ for pattern and rock nature associated.
Level 2	3-4	expect process. Explanation of at least how one of rock types leads to discharge pattern e.g. permeability and low, flat discharge.

Question Number	Answer	Mark
1(b)	2 marks for each explanation. 1 mark for stated impact in each case and 1 mark for explanation. 1st mark for stated impact • e.g. 1. urban land increases discharge • e.g. 2. vegetation lowers discharge 2nd mark for explanation/development • e.g. 1. impermeability of • e.g. 2. transpiration; interception – i.e. process not 2nd stated impact. (2 x 2)	 1 1 1 1 (4)

Question Number		
1(c)		
Level	Mark	Descriptor
Level 1	1-2	expect short list of ways (e.g. spillways; embankments)
Level 2	3-4	expect long list or some description of one named scheme or ways merely exemplified L2 max if coastal flooding defences/control addressed
Level 3	5-6	expect full description of one named scheme or details of a 2nd scheme or a case study of flood defences in a named area

(Total 20 marks)

2. Hazards

Question Number	Answer	Mark	
2(a)(i)	1 mark for correct answer. • moderate	1	(1)

Question Number	Answer	Mark	
2(a)(ii)	1 mark for correct answer – see below. Credit any valid region • e.g. California; • Indonesia; • or smaller (e.g. Kobe)	1 1 1	(1)

Question Number	Answer	Mark	
2(a)(iii)	2 marks for correct explanation – see below. Maximum 2 marks. • more energy/force/power/vibration; • covers bigger area; • impact of high-energy quakes;	1 1 1	(2)

Question Number	Answer	Mark	
2(b)(i)	2 marks for valid definition – see below. • Valid definition i.e. point on Earth's surface above origin **Notes** • Partial definition = 1 mark. • E.g. centre of quake, focus defined	2 1	(2)

Question Number	Answer	Mark	

2(b)(ii)	1 mark for relationship from Figure 2(b) stated and 1 mark for development/example – see below. Maximum 4 marks.
	1.
	• relationship from fig 2b stated = 1;
	  • e.g. worst closest;
	  • e.g. structural damage declines;
	• 2nd mark for development/examples/details in each case
	2.
	• rural/urban
	• soft materials
	• 2nd mark for development/examples/details in each case
		1
		1
		
		1
		1
			(4)

Question Number	
2(c)	

Level	Mark	Descriptor
Level 1	1-2	expect stating/description of prediction/preparation techniques e.g. drills; technology; building design
Level 2	3-4	expect attention to how evacuations/better designed buildings… reduce impact (e.g. buildings stay up and save lives). Expect named example for L2+ (4 marks)

Question Number	
2(d)	No credit for naming hazard but expect impacts relevant to hazard.

Level	Mark	Descriptor
Level 1	1-2	expect short list of direct and immediate effects, perhaps generic (e.g. death toll; crops ruined)
Level 2	3-4	expect either long list of direct and immediate effects or description of some of former or reference to indirect and longer term effects. (e.g. water/gas, cuts → unemployment/ disease…)
Level 3	5-6	expect either case study-style knowledge, perhaps related to one named hazard event or thorough description of a range of relevant but generic impacts, including indirect and longer term effects.

(Total 20 marks)

3. Production

Question Number	Answer	Mark
3(a)(i)	1 mark for each correct answer – see below. Maximum 2 marks. • identifying fossil fuels e.g. coal/gas/oil; • 1 mark for data i.e. 74 – 75% versus 5%. (2 x 1)	1 1 (2)

Question Number	Answer	Mark
3(a)(ii)	1 mark for each answer from any of the following – see below. Maximum 2 marks. • identifying renewable fuels e.g. wind; • valid definition; • application to wind or other renewable source; (2 x 1)	1 1 1 (2)

Question Number	Answer	Mark
3(a)(iii)	1 mark for each correct answer – see below. Maximum 2 marks. Expect • less CO_2 /polluting emissions ; • CO_2 a greenhouse gas/traps heat (2 x 1)	1 1 (2)

Question Number	Answer	Mark
3(b)	1 mark for each correct answer – see below for notes and examples. Maximum of 3 marks for listing factors (3 x 1). Maximum 4 marks for developed answer. Factors might include: • more cars • rising incomes **Notes** Expect at least one developed reason for max and implicit in response that rise continuous and to do with prosperity/economic development.	1 1 (4)

Question Number		
3(c)		
Level	Mark	Descriptor
Level 1	1-2	expect advantages of nuclear stated e.g. guaranteed; no carbon emissions
Level 2	3-4	expect development into argument e.g. not import-dependent; carbon emissions serious issue… May identify disadvantages e.g. safety but L2+ (4 marks) then requires evaluation i.e. advantages outweigh disadvantages

Question Number		
3(d)		
Level	Mark	Descriptor
Level 1	1-2	expect broad issues of pollution, renewables, efficiency, importing … identified. May refer to energy mix idea or make a statement about sustainability.
Level 2	3-4	expect 2-3 key issues to be explicit and related to sustainability e.g. global warming; resource conservation; new technologies; cutting and switching fuels
Level 3	5-6	expect a range (2-3)of issues to be developed/reasoned into a policy statement. Expect a clear idea of a sustainable future to be evident.

(Total 20 marks)

4. Development

Question Number	Answer	Mark
4(a)(i)	2 marks for valid and full definition e.g. total value of production within a country in a year = 2 marks **Notes** • Partial and broad understanding e.g. value of production; income of a country; GNP/GDP confused = 1 mark • What GDP an abbreviation of = 0 marks	2 1 0 (2)

Question Number	Answer	Mark
4(a)(ii)	1 mark for each correct answer (points-based) – see below. Maximum 2 marks. • maximum of 1 mark for individual country changes e.g. rise of China; Germany drops from 3rd to 8th • For maximum marks expect generalisation e.g. fall of present G8; 4 E7 countries in top 8 by 2050 (2 x 1)	1;1 2 (2)

Question Number	Answer	Mark
4(b)	3 marks for each chosen topic – see below. 1 mark for clarifying factor and 2 marks for explanation. Maximum 6 marks. • For each choice, allocate 1 mark to clarifying the factor e.g. meaning of, for example, freer trade in 2 • 1 – 2 further marks for explanation of a process e.g. how freer trade allows for more exports which means more production possible (2 x 3)	 1 1 1 (6)

Question Number	Answer	Mark
4(c)	2 marks for description and then 2 marks for reason – maximum 4 marks. Description of change – maximum 2 marks • rapid urban income rise; • slower rural rise • Ensure both urban and rural addressed for maximum 2 marks Reasons – maximum 2 marks • urban industrialisation; • full developed explanation needed for maximum 2 marks **Notes** • Maximum 2 marks for reasons also if 2nd valid but outline reason offered e.g. rural de-population	1 1 1 (4)

Question Number		
4(d)		
Level	Mark	Descriptor
Level 1	1-2	expect some clarification of HDI's meaning e.g. quality of life indicators. Expect broad understanding nature of HDI
Level 2	3-4	expect some comparing of HDI and GDP (i.e. economic output/monetary v. social/human measures). Expect some detailed knowledge of make-up of HDI. Contrast between what GDP measures and what HDI measures to be clear
Level 3	5-6	expect GDP shortcomings and HDI "superiority" to be explicit. Examples may be evident. Explicit ideas like daily lives of ordinary people and govt. spending priorities paramount.

(Total 20 marks)

5. Migration

Question Number	Answer	Mark
5(a)(i)	2 marks for correct use of terms – see below. Maximum 2 marks. • Credit each valid flow linked to correct term e.g. emigrate from Africa (1)→Spanish immigration (1) (2 x 1)	2 (2)

Question Number	Answer	Mark
5(a)(ii)	1 correct answer from any of the following. 1 mark for each valid obstacle – maximum 2 marks. • Distance; • No cash; • crowded boat; • dangers at sea; • getting lost; **Note** Accept fears once arrived/perceptions for 1 mark (2 x 1)	 1 1 1 1 1 (2)

Question Number	Answer	Mark
5(a)(iii)	3 marks for each chosen topic – see below. 1 mark for identification and 2 marks for explanation. Maximum 6 marks. In each case, 1 mark per identification of factor • e.g. drought = push factor with 2 marks for explanation of its role in encouraging the migration in question e.g. drought leads to poor crops. Hence, rural poverty and hunger so search for better life **Note** for max (i.e. 3 marks) ensure explanation relates to specific migration. Maximum of 2 marks if generic. Cap of 4 if LEDC/MEDC uncertain, or no flow implicit. (2 x 3)	 1 1 (6)

Question Number	Answer	Mark
5(b)	1 mark for each correct answer – see below for notes and examples. Maximum of 4 marks. 1 mark for valid reaction e.g. • happy to let them go; • don't know; • indifferent; • keen to stop them; **Note** Award 2 marks if more complex reaction e.g. ambivalence 'Why' part of question = 2 - 3 marks. • Award 1 mark per stated reason with 2nd mark if reason developed. • Ensure reasons relate to stated reaction. **Notes** Max of 2 out of 4 marks if reaction not at least implicit.	1 1 1 1 (4)

Question Number		
5(c)		
Level	Mark	Descriptor
Level 1	1-2	expect vague, generalised policy description e.g. control numbers; easy to enter; only skilled people
Level 2	3-4	expect candidate to develop one aspect of question i.e. actual policy statement or address both sides superficially e.g. EU member country. Expect country named.
Level 3	5-6	expect candidate to develop both aspects of question. Expect clear policy statements and at least one developed reason, preferably two.

(Total 20 marks)

6. Urban Enviroments

Question Number	Answer	Mark
6(a)(i)	1 mark for each correct answer from any of the following – see below.1 mark reserved for definition/clarification of rural-urban fringe and 2 marks for points of evidence. Maximum 3 marks. Point mark with 1 mark for definition/clarification of rural-urban fringe 2 marks for points of evidence e.g. • green field site; • outer suburbs; • or one justified piece of evidence;	 1 1 1 (3)

Question Number	Answer	Mark
6(a)(ii)	1 mark for correct term. • Accept green field; green belt;	 1 (1)

Question Number	Answer	Mark
6(a)(iii)	1 mark for each correct answer – see below. Maximum of 4 marks. Credit lists of valid factors up to maximum of 3 e.g • road access; • space; • attractive environment; **Notes** • expect explanation for maximum marks i.e. 2 -3 factors developed as direct response.	 (4)

Question Number	Answer	Mark
6(a)(iv)	1 mark for each correct type of development – see below. Maximum 2 marks. Credit valid land users for RUF greenfield sites e.g. • distributors; • supermarkets; • housing; (2 x 1)	 1 1 1 (2)

Question Number	Answer	Mark
6(a)(v)	1 mark for each correct answer – see below. Maximum of 4 marks. Allocate 2 marks to conflict with residents and 2 marks to conflict with environmentalists. In each case: • conflict outlined e.g. building on unspoilt countryside • conflict developed/explained **Notes** • Responses not showing conflict with named developer limited to 2 x 1. • No mark for identifying developer either explicitly or implicitly but responses not making the two conflicting parties clear (2 x 1)	1 2 (4)

Question Number		
6(b)		
Level	Mark	Descriptor
Level 1	1-2	expect a shortlist of basic "do's and don'ts" perhaps linked to previous question e.g. stop urban sprawl/keep greenfield sites; maintain green belt
Level 2	3-4	expect some development of challenges faced and/or some reference to range of urban managers involved i.e. politicians, developers
Level 3	5-6	expect realisation that RUF is dynamic and pressured area and part of whole city-region for planning e.g. developing brownfield sites relieves RUF pressures. Expect concept of urban manager clarified and at least two challenges they face explained.

(Total 20 marks)

Total for Section A: 120 marks

7. Fragile Environments

Question Number	Answer	Mark
7(a)(i)	1 mark for each correct answer from any of the following – see below. Maximum 2 marks for full definition. • Award full marks = loss of vegetation cover/little or no plant growth • 1 mark = partial definition or mere interpretation of term i.e. spreading deserts; desert enlarges (2 x 1)	 2 1 (2)

Question Number	Answer	Mark
7(a)(ii)	2 marks for full definition of difference – see below. Maximum 2 marks. Accept valid definitions of: • drought i.e. little or no rainfall over a period. (1) • unreliable rain fall i.e. rains but irregular/uncertain/dry and wet spells (1) **Notes** • Clear distinction – maximum marks • Distinction present but vague – 1 mark (2 x 1)	 1 1 (2)

Question Number	Answer	Mark
7(a)(iii)	1 mark for each correct answer – see below. Maximum 2 marks. • 2 marks = full statement e.g. drought-intermittent rivers or refers to permanent rivers (e.g. the greater the rainfall the more permanent the rivers) • 1 mark = partial statement (e.g. illustration only; direct lift from Fig 7a) (2 x 1)	 (2)

Question Number		
7(b)(i)		
Level	Mark	Descriptor
Level 1	1-2	expect Fig. 7b ideas undeveloped e.g. poverty; population increase; deforestation. Factors stated only.
Level 2	3-4	expect development of at least one offending human activity described (e.g. overgrazing). Expect some link to soil erosion/desertification outcome.
Level 3	5-6	expect at least 2 such activities (e.g. overgrazing; deforestation) described and explained as causes/processes. Expect relevance to Burkina Faso savanna(Fig. 7a). Accept overview responses i.e. people farm too much; farm badly; grow wrong crops etc… with appropriate development.

Question Number	Answer	Mark
7(b)(ii)	1 mark for each correct answer from any of the following – see below.1 mark for clarification and 2 marks for process. Maximum 3 marks. 1 mark for each of: • clarification of meaning of soil erosion • no soil therefore no plants idea/loss of fertility • desert area or soil erosion process (e.g. wind)	 1 1 1 (3)

Question Number		
7(c)		
Level	Mark	Descriptor
Level 1	1-2	expect a list of measures e.g. afforestation
Level 2	3-4	expect some description, perhaps outlining of one measure in a named location. Latter required for L2+(4 marks)
Level 3	5-6	expect either a range of place-located measures outlined or a detailed case study (e.g. magic stones in Burkina Faso)

Question Number		
7(d)		
Level	Mark	Descriptor
Level 1	1-3	expect effects to be merely listed e.g. little use for farming; famine; migration
Level 2	4-6	expect ideas to be developed e.g. cycle of poverty; rural-to-urban migration. Long list of effects worthy of L2 - (4 marks). Expect description of a limited range of effects
Level 3	7-9	expect case study approach, naming areas, relating to specific communities. Response must have range and named examples

(Total 30 marks)

8. Globalisation

Question Number	Answer	Mark
8(a)(i)	1 mark for 2 correctly marked MEDC countries • Credit any two named MEDC countries e.g. USA; Japan **Note** Accept appropriate continental names e.g. Australasia or Oceania or N America or MEDC trading blocs e.g. EU (2 x 1)	(2)

Question Number	Answer	Mark
8(a)(ii)	1 mark for each correct response. Maximum 4 marks. Credit all valid responses of each of the four flows e.g. • A. Samsung factories in UK • B. Asian-made goods in UK shops • C. Chinese money in Afghanistan copper mine • D. UK technology Kenyan flower farm (4 x 1)	(4)

Question Number	Answer	Mark
8(a)(iii)	1 mark for each correct arrow drawn. Maximum 2 marks. • 1. - MEDC (or NIC) → LEDC • 2. - LEDC → NIC (or MEDC) (2 x 1)	(2)

Question Number	Answer	Mark
8(b)(i)	2 marks for full definition of global shift and then further mark for explanation/example – see below. Maximum 3 marks. Accept the following valid definitions and examples: • manufacturing **(1)**; from MEDCs → … **(1)** within valid definition; • Reserve final mark for valid example (e.g. ships from Western Europe to South Korea; UK household appliances now made in…) (2 + 1 mark)	2 1 (3)

Question Number	Answer	Mark
8(b)(ii)	Maximum of 5 marks for either five distinctive stated reasons or two-three developed reasons – see below. Acceptable reasons: • R & D/product innovation/new technologies in MEDCs; • MEDC GDPs higher; • MEDC universities/skilled professionals reputation **Notes** • Well-developed reason could be worth up to 3 marks.	 1 1 1 (5)

Question Number		
8(c)		
Level	Mark	Descriptor
Level 1	1-2	expect short list of basic factors stated e.g. profit; low labour costs
Level 2	3-4	expect either factor long list or at least two stated factors with one developed into a clear and relevant reason e.g. creation of new local markets so sales raised
Level 3	5-6	expect explanation of at least two relevant reasons e.g. poorer working conditions permissible so costs lower

Question Number		
8(d)		
Level	Mark	Descriptor
Level 1	1-3	expect clarification of interdependence and how trade links up trading partners e.g. jobs
Level 2	3-6	expect gainers and losers from trade idea introduced e.g. little fair trade; import-export prices; limited access to MEDC markets; MEDC benefits greater
Level 3	7-9	expect examples (e.g. African imports to EU) and balanced response addressing how trade both ties countries together and widens the income differences between them

(Total 30 marks)

9. Human Welfare

Question Number	Answer	Mark
9(a)(i)	1 mark for correctly stated general relationship – see below. Maximum 1 mark. • Low HDI and low GDP pp (or vice-versa) or positive correlation	 1 (1)

Question Number	Answer	Mark
9(a)(ii)	1 mark for each correct answer – see below. Maximum 2 marks. • 1 mark - quality of life or to merely stating life expectancy and/or literacy (as per Figure 9(a) • For 2 marks - expect broader picture of QOL i.e. daily life conditions of ordinary people	 1 2 (2)

Question Number	Answer	Mark
9(a)(iii)	1 mark for each correct HDI indicator – see below. Maximum 2 marks. • Credit any two valid social/human welfare indicator (other than life expectancy; literacy) • e.g. doctors per 1000 people. • Birth rate • Number of people with qualifications (2 x 1)	 1 1 1 (2)

Question Number	Answer	Mark
9(a)(iv)	1 mark for each correct response – see below. Points based marking. Maximum 4 marks. • Reserve up to 2 marks to ideas of: • GDP provides resources/affordability • HDI depends on facilities/equipment • Allocate further 2 marks to government spending priority idea • And an example of facility/spending (e.g. hospital building (4 x 1)	 1 1 1 1 (4)

Question Number	Answer	Mark
9(a)(v)	1 mark per valid but distinctive reason (perhaps brief i.e. factors) – see below. Maximum 2 marks. Credit valid reasons: e.g. • small army • spends a lot on schools • spends a lot on GDP health care (2 x 1)	 1 1 1 (2)

Question Number	Answer	Mark
9(b)	1 mark for each correct response – see below. Maximum 4 marks. Comparisons should include: • a comparative statement about area deprivation e.g. Woodhouse deprived/Oakwood affluent • 3 pieces of comparative evidence from Fig 9b – e.g. 90% of households in Oakwood have car; only 68% in Woodhouse (4 x 1) **Notes** Evidence marks must be distinctive and deal with separate indicators	 1 1;1;1 (4)

Question Number		
9(c)		
Level	Mark	Descriptor
Level 1	1-2	expect short list of valid factors, perhaps generic e.g. de-industrialisation; immigration; unskilled; cheap housing.
Level 2	3-4	expect reference to named city and either long list of tied factors or short list of tied and developed factors.
Level 3	5-6	expect case study-style approach with city knowledge. A number of explicit reasons to be evident.

Question Number		
9(d)		
Level	Mark	Descriptor
Level 1	1-3	expect generic, non-place-specific stated only efforts (e.g. spend money; build roads…) or outline description of 1-2 efforts. May be no sense of region evident.
Level 2	3-6	expect case-study level of knowledge of schemes/policies in named region (e.g. Auto del Strada motorway to Mezzogiorno). Expect degree of place-specificity. A large city acceptable but not a shanty town.
Level 3	7-9	expect case-study level of knowledge with focus also on welfare improvements (i.e. effects on lives e.g. jobs; better facilities…) in named region. Must be a standard region not merely a city.

(Total 30 marks)

Total for Section B: 30 marks

TOTAL FOR PAPER: 150 MARKS