Mark Scheme (Results)

January 2008

GCE

GCE Geography A (6462/01)

6462 Human Environments

Question Number	Question	
1	(a) (i)	
	Answer	**Mark**
	India	(1)

Question Number	Question	
1	(a) (ii)	
	Answer	**Mark**
	- Rising calories for all. - Uses of supporting data. - Rank ordering stays same – US always highest, etc. - US makes least progress in relative numbers. - India makes the least progress in absolute numbers. - China's improvements are far greater than the others (both proportionately and in absolute numbers). 1975-85 greatest rises. Point mark (any three). *Max. two marks for simple listed increases for the three countries if no overview given (e.g. "all have risen) or qualifies the trends (e.g. greatest increases in 70s). Do not credit imprecise remarks (e.g. "India has the least change").*	(3)

Question Number	Question	
1	(a) (iii)	
	Answer	**Mark**
	Expect intensification and extensification ideas (but do not expect the actual words to be used). Possibilities include: - Development has taken place (point mark this statement - and any extended details e.g. India is now an NIC) - Aid has been given - Imports have risen / more money to pay for them - Rising wealth of individuals (diet improves / changes) - Technology / new inventions (High Yield Variety e.g. IR8, or GM crops, or fertilisers / pesticides) - Money has been invested (irrigation / dams) - New machinery (e.g. tractors) - Government subsidies / Green Revolution - TNCs have got involved (agribusiness ideas) - Boserup's theory helps explain all of this - Any sensible suggestion Do not credit suggestion of falling population / less mouths to feed (*this is India, not China*) or suggestion that there	

Question Number	Question	
	are more people alive to work the land (does not explain average intake). Mark on range or depth. Point mark for each basic point ('new inventions' or 'India has got more developed') and award additional marks for each extension or example ('e.g. tractors'). Give three marks for just one idea if the details are good (i.e. extended and exemplified).	(4)

Question Number	Question	
1.	(b)	
	Indicative content	Mark
	Superior details could include: Thermal Growing Season, Environmental Lapse Rate, carrying capacity or explicit opportunities for economic activity (different types of farming).	(4)

Level	Mark	Descriptor
2	4-3	Superior details; or refers to named regions; or good focus on density (not just lack / presence of people). *For 3 marks will do one of these, for 4 marks should do two.*
1	2-1	Simple ideas ("mountains difficult to live on due to cold temperatures").

Question Number	Question	
1	(c) (i)	
	Answer	Mark
	Maximum number of people that can be supported by natural resources available (at current levels of technology) 1 mark for synonym (right / maximum / most / ideal / highest / balanced *etc*.) or demonstrates idea of "ideal". 1 mark for a link to the word "resources".	(2)

Question Number		Question	
1.		(c) (ii)	
		Indicative content	Mark
		Under population = too few to utilise resources or to meet the threshold population of services, thus limiting possible employment opportunities. *Economic* • Resources not utilised (lowering potential GDP etc.) • Costs of goods higher (lacking economies of scale). • Any sensible suggestion *Social* • Challenge of providing social services (education and health), especially in the most remote areas (Highlands and Canada commonly used to exemplify). • Difficulties in meeting marriage partner. • Need for birth policies or immigration encouraged • High dependency (treat similar demographic suggestions as 'social' in this question). • Any sensible suggestion. *Expect top band answers to use good detail or to make explicit reference to natural resources or should show understanding of idea of un-met thresholds / economies of scale (accept this interpretation).*	(6)
Level	Mark	Descriptor	
3	6-5	More or less equal weight given to both economic and social consequences. Provides sound details (may offer location) or displays conceptual understanding (recognises link with resources, for instance).	
2	4-3	Simple ideas about "too few" people. Imbalance or lack of distinction between economic and social consequences. Weak supporting detail / lacks conceptual understanding.	
1	2-1	Cannot develop one of the categories at all. May assert there are "not enough jobs". No supporting details.	

(Total marks 20)

Question Number	Question	
2.	(a) (i)	
	Answer	Mark
	Point mark – look carefully for the plot at T4 (due to the double plot). Line need not be drawn (do not penalise if it is).	(2)

Question Number	Question	
2.	(a) (ii)	
	Answer	Mark
	• Food growth is linear / steady / "rises in straight line" / "goes 2,4,6,8" • Population growth is geometric / exponential / increasing at increasing rate / "starts off slow but then gets faster" / goes "1,2,4,8" • Both rise over time • Pop starts lower but ends higher • Population overtakes food after T4 ("overshoots") • Any good comparative / descriptive comment *Any three (point mark).*	(3)

Question Number	Question	
2.	(a) (iii)	
	Indicative content	
	• Famine, disease, war (positive checks) • Population policy (preventive check) • Rapid social changes e.g. contraception (preventive check) • Award a mark for hazard ideas (and perhaps another for out-lining if the scale / detail is appropriate) • Accept out-migration as a cause	(3)

Level	Mark	Descriptor
2	3	Outlines (perhaps using examples) at least one positive and one preventive check (use of these terms is not required) <u>or</u> has a mixture of migration and checks (any).
1	2-1	Only one scenario explored (1-child policy) or has longer list but lacks variety (all positive checks).

Question Number	Question	
2.	(b)	
	Answer	Mark
	1. economic factors explain above-average population density

Wide range of employment opportunities available in large cities and metropolitan regions (Multiplier effect).

- Names an appropriate area / city. (1)
- States that "more jobs are attracting people". (1)
- Adds details of range of opportunities available. (1)
- Recognises advantageous /accessible situation (M4 Corridor). (1)
- Links strength of local economy with the provision of superior services. (1)

2. physical factors explain below-average population density.

- Names an appropriate area. (1)
- Basic statements about relief and /or climate limiting numbers ("too difficult to farm"). (1)
- Extends idea(s), e.g. thermal growing season or carrying capacity mentioned). (1)
- Adds details of actual activities ("sheep farming only supports low numbers"). (1)

For 6 marks, the answer <u>as a whole</u> should contain <u>at least one</u> explicit reference to density (and not distribution). | (6) |

Question Number	Question
2.	(c)

	Indicative content	Mark
	- MEDCs: low and falling further. - MEDC falls are linked with lifestyle choices of women & rising consumerism. - But MEDCs are a diverse group (U.S. still quite high; eastern Europe very low; issues with Catholic nations). - LEDC are sometimes still high due to importance of subsistence farming and lack of education / contraception. - But fall in most LEDCs (especially Asia) is now linked with falling infant mortality, urbanisation & growing access to medicine and contraception for the first time. - Thus LEDCs are a diverse grouping (Saharan Africa very high, India falling, China has policy, NICs may feature). - May take DTM approach.	(6)

Level	Mark	Descriptor
3	5-6	Allow to 5 marks if MEDC/LEDC 'caricature' has superior details. (and a range of explanation supports the answer). At 6 marks, MEDC/LEDC divide must show variety (e.g. not all LEDCs have high fertility). Or DTM well-explained and nicely focused on fertility changes.
2	4-3	Describes a basic pattern (LEDC / MEDC) and can provide superficial support for categories. LEDCs are caricatured (all still have high fertility). Or provides descriptive / unfocused account of DTM.
1	2-1	No variation, only one or two general assertions.

(Total marks 20)

Question Number	Question	
3.	(a) (i)	
	Answer	Mark
	1. Residential accommodation • Flats / small / compact • Above shops / higher floors • Terraced • Mostly old, probably 19th Century • Some newer-looking properties (above Atkinson McLeod) • Several are empty ('To Let' signs) / run-down • Thus a diverse mix • Sensible suggestion (using evidence) **2. Services, shops and offices** • Mixture of types: shops (some chain), restaurants and estate agents. • Thus higher order (Pizza Express restaurant) and lower order (Thresher off-license) are arguably both represented. • Apparently catering for a variety of consumers (Starbucks, William Hill). • Currently changing: photograph shows renovations. • Sensible suggestion (using evidence) Answer asks for a description of photographic evidence. Do not credit inferences. *Point mark, but reserve 4th mark for responses that convey a sense of inner city diversity / mix / change in either of the two answers.*	2 2 (4)

Question Number		Question	
3.		(a) (ii)	
		Indicative content	Mark
		Characteristics = age-sex, ethnicity, income. Groups = middle-class gentrifiers, students, council estates, elderly (or other) dependents, established ethnic minority communities, recent migrant arrivals (including refugees), other sensible suggestions *The stem describes this as an "inner part" of the city. Expect better answers to refer to the dynamic / changing / diverse nature of population assoc. with inner city / zone of transition.*	(3)
Level	Mark	Descriptor	
2	3	A range of <u>diverse</u> characteristics presented that are highly <u>appropriate</u> to an inner city area. May recognise their potentially dynamic / transient nature (migrants, students, gentrifiers).	
1	12-1	Sensible range of suggestions made, drawing on age, gender, ethnicity and occupation.	

Question Number	Question
3.	(b)

	Answer	Mark
	Residential Industry (coal-mining) Fishing Farming /agriculture (accept this, as true for smaller hamlets) Tourism Retailing / shops / market / trade Services/tertiary services Religious Education Recreation / leisure Any other sensible / significant suggestion *Credit functions ("religious") not buildings ("church") or site factors ("defence").*	(2)

Question Number	Question
3.	(c)

	Indicative content	Mark
	1. dispersed in some areas because of physical factors • Relief, altitude, soils, waterlogged flood plains = extensive agriculture / dispersal of farm buildings. • Lack of natural resources (coal) precludes nucleation. 2. nucleated in some areas because of human factors. • Role of roads and other transport factors. • Farming systems may have played a role in past. • Planning decisions (green belt could result in high levels on in-fill and further nucleation). • Tourism honey-pots attract new businesses / further infill.	(5)

Level	Mark	Descriptor
2	5-4	Answer(s) make explicit references to the pattern of housing or settlement (and not just where people can / can't live). May offer supporting details (e.g. of soils) or examples.
1	3-1	Simple ideas linked to the presence / absence of people. For three marks, both sections are given some coverage.

Question Number		Question	
3.		(d)	
		Indicative content	Mark
		Causes: growing population density pressures ("push" of inner city), provision of transport infrastructure, allure of low-rise living (rurban attractions), rising incomes that absorb commuting costs, central planning	
		Consequences: Improved QOL for suburbanites, easing of pressure / density in inner city, negative externalities of urban sprawl (habitat loss, run-off), green belt needed as consequence / or under threat as a result, impetus for town centre redevelopment (get people back).	
		Accept LEDC interpretation of 'suburbs' (i.e. shanties / peri-urban growth).	
		Allow some confusion / conflating of suburbs / new town / rurban / commuter village *if K and U of decentralisation causes and consequences is secure* – up to 4 marks.	(6)
Level	Mark	Descriptor	
3	6-5	More or less equal weight given to both causes and consequences. At this level, there should be some variety of casual factors, such as the role of rising incomes or planning laws, transport growth. <u>Or</u> good case study details of named suburbs.	
2	4-3	Causes and consequences described but without real explanation ("they" wanted to live in the suburbs as "it's quieter /cleaner"). Or imbalance but one aspect (probably causes) is secure. Consequences limited to loss of countryside as city grows. May conflate suburbs / new towns but secure explanation of decentralising causes / consq. Recognisable location.	
1	2-1	Simple statements and may not develop one of the categories at all, probably causes. No recognisable refs to place.	

(Total marks 20)

Question Number	Question	
4.	(a) (i)	
	Answer	Mark
	- On a (medium-gradient) slope - Altitude = 40-70m - East-facing slope - In gap / valley / sheltered location (or similar) - May argue it is a meander slip-off slope (accept this) - Part of settlement may be on the flood plain - Other sensible *Immediate proximity to river makes site / situation distinction problematic for students. Therefore accept either of the following reasoning:* - Water is available / it's by a river / wet point - Most of village is a little away from river / dry point	(3)

Question Number	Question	
4.	(a) (ii)	
	Answer	Mark
	- Streets are spaced further apart in Givons - Streets are straight in Westhumble but wind in Givons - Streets look to be wider in Givons - Houses are spaced further apart in Givons - Detached in both, but more semis / terraces in Westhumble - Larger gardens in Givons - Larger area covered by Givons - Westhumble has station (or similar amenity) - Accept comparison of gradients (or similar physical areal comparison) - Givons is bordered (or similar) by major roads - Any sensible suggestion *Accept any sensible interpretation of "residential areas" (their intrinsic qualities) but not situation ideas ("nearer to Leatherhead").*	(2)

Question Number	Question	
4.	(a) (iii)	
	Answer	Mark
	• Westhumble is likely to be older in origin and older settlements tend to be less well-planned / higher density. • Givons is on the fringe of Leatherhead, suggesting it is a more recent suburban development (overspill). • Westhumble is as isolated settlement, so probably older / pre-dates cars. • Whereas wider street layout of Givons suggests it was designed with cars in mind. • Westhumble may pre-date era of "large detached house with garden" hence smaller / less widely spaced properties. • If Givons is wealthier, this could explain the bigger homes (1 mark only – must suggest why this is the case for extended marks). • Accept sensible physical-based arguments (slope, relief, building constraints). • Any sensible suggestion. *Award point marks for each justification and any subsequent development.*	(3)

Question Number		Question	
4.		(b)	
		Indicative content	Mark
		Distinction can be: housing type, broader areal characteristics (e.g. services), location within city • Shanties / spontaneous settlement on edges / near industry / along roads / city centre (City of the Dead) • Higher class close to CBD – old 'Colonial' areas • Physical factors may come into play – poorer areas on steep slopes, higher class on terraces, etc. • NIC cities (Seoul, Sao Paulo) may exhibit greater contrast (linked to much wider income gap) than non-industrialised African cities (Freetown, Addis Ababa) • Credit South Africa – Apartheid city • Ownership can be a characteristic	(4)
Level	Mark	Descriptor	
2	4-3	Distinction is broader e.g. has type of housing <u>and</u> considers location <u>or</u> extends to include levels of service provision / amenities. May provide examples.	
1	2-1	Answer <u>only</u> describes the type of housing found there <u>or</u> differing locations <u>or</u> answer is presented as a brief list.	

Question Number	Question	
4.	(c) (i)	
	Answer	Mark
	- At a central location / within the CBD. - Probably at intersection of main roads / adjacent to railway station /accessible / (or similar). - Found where pedestrian flows are highest / costs (bid-rent) are highest (or similar logic). - Offers own fieldwork details to support. *Point mark (any two).*	(2)

Question Number	Question	
4.	(c) (ii)	
	Indicative content	Mark
	Causes: rising incomes that allow greater consumption and travelling costs, provision of transport infrastructure, allure of greater range of goods /cheaper prices (economies of scale), role of local planners or businesses (power of Tesco). Consequences: Improved shopping opportunities, loss of trade in CBD, possible subsequent CBD renewal schemes, negative externalities of suburban retail expansion (habitat loss, run-off), jobs for suburbanites.	(6)

Level	Mark	Descriptor
3	6-5	More or less equal weight given to both causes and consq. Causes may include the role of rising incomes or the power of supermarket chains / role of planners. Consequences may be for CBD <u>and</u> suburbs. Good details of place.
2	4-3	Simple causes and consequences described but without any depth of explanation (shift to suburbs as "it's cheaper / more room"). Consequences limited to loss of CBD trade <u>or</u> urban sprawl. Or tackles either causes or consequences well but omits the other. Fleeting references to a real place.
1	2-1	Cannot develop one of the categories at all, probably causes. No recognisable references to place.

(Total marks 20)

Question Number	Question	
5.	(a) (i)	
	Answer	Mark
	60%	(1)

Question Number	Question	
5.	(a) (ii)	
	Answer	Mark
	• Generally increases (or has other overview). • Uneven, with large fall in 2000 (also slight fall in numbers in 1997). • All-time high reached after sudden rise in 2002-03, from 43% to 60%. For full marks, expect to be provided with an overview and a couple of significant qualifications.	(3)

Question Number	Question	
5.	(a) (iii)	
	Answer	Mark
	1. are needed to work in the UK • UK has falling birth rates so less young people become doctors. • UK ageing population so growing need for doctors for medical care for elderly. • Less people choosing to train • UK doctors have emigrated overseas • Population now growing again (due to migration) so more doctors needed • UK doctors want to work less hours • Any sensible suggestion *Point mark any idea and extension /example* **2. have chosen not to work in their home country.** • Wages are much lower in the home country and so offer of work overseas has been accepted. • Staying in home country may have risks attached (political instability, etc.). • May have high opinion of UK / speak English, so happy to leave and work overseas • Any sensible suggestion *Point mark any idea and extension /example*	2 2 (4)

Question Number	Question	
5.	(b)	
	Answer	Mark
	1. expanding urban areas. • loss of habitats / urban sprawl • impermeable surfaces = flashier hydrographs • urban heat island expansion • pollution and air quality **2. abandoned rural areas** • land recovers • invasion of plant and animal species • ecosystems restored • natural succession resumes (secondary succession) *Credit each basic idea for one mark, and point mark additional process details or examples (thus "the abandonment of St Kilda allowed secondary succession to occur as wild plants re-invaded cleared land" is worth three marks).*	3 3 (6)

Question Number		Question	
5.		(c)	
		Indicative content	Mark
		Examples could be city regions (contrasting urbanising vs. counter urbanising flows) or countries as a whole (core-periphery flows, coastal retirement or hazard-related movement, amongst others). Answer may explain changes in one place over time. Or it may offer multiple examples of different migration flows starting to take place (that previously were not happening – migration simply viewed as an "on/off" or "happening /not happening" business). Accept either view. *Must be internal. No credit for international.*	(6)
Level	Mark	Descriptor	
3	6-5	Differing directions accounted, ideally the reversal of a single flow (e.g. rural-urban becomes urban-rural). Or may have a wider range of examples / explanation. May refer to numbers involved (volume) or other useful detail. Good use of case studies.	
2	4-3	A change described, but explanation simplistic / lacking ("on/off" or basic "reversal" ideas). May still not explicitly reference volume / numbers but can explain the change(s). Case study(s) lack convincing detail.	
1	2-1	Describes a single movement. No references to direction / volume / change (the key words). No real detail provided.	

(Total marks 20)

6.	(a) (i)	
	Answer	Mark
	Accept range 2400-2600	(1)

Question Number	Question	
6.	(a) (ii)	
	Answer	Mark
	• Both fall then rise again • Use of data to support • Low point is 1970-1980 • Wothrick recovers more markedly than Tomton (or similar descriptive contrast made) *Point mark. Thus for full marks expect an additional qualification (such as the 70-80s low) to be made in addition to the statement (with data) that they fall then rise again.*	(3)

Question Number	Question	
6.	(a) (iii)	
	Answer	Mark
	• Rural-urban movement at the start, moving to towns for employment and services. • More recently, urban-rural movement occurring: people can work from home, or afford to commute; or may view as an ageing population movement. 1 mark for the process, second mark for explanation. Must have both processes for full marks.	(3)

Question Number	Question	
6.	(a) (iv)	
	Answer	Mark
	Population recovers whereas services do not. This reflects the fact that the incomers are likely to use higher-order services and supermarkets in neighbouring key settlements. Hence, demand has not been replaced for local services. • Basic idea of shopping elsewhere • Extended idea of hypermarkets / key settlements • Extended idea of being able to afford to travel elsewhere / shop by internet / lifestyle • Extended idea that incomers have different aspirations from original residents, so not a simple "replacement" of people *Point mark basic idea plus extension (details of where they go for services / why they go there).*	(2)

Question Number	Question	
6.	(b) (i)	
	Answer	Mark
	Only migrants with certain population characteristics move, e.g. young men in LEDCs; pensioners in UK, Jews during WWII. Accept the idea of "selective" characteristics desired by receiving nations (e.g. when UK wanted doctors from India / Aussie points system). *One mark for idea of sub-set, one for illustration / detail.*	(2)

Question Number	Question	
6.	(b) (ii)	
	Indicative content	Mark
	The question asks for explanation (see italics), not just description. • Richer, highly-skilled types *find it easiest to gain a visa (UK-US) as they are valued workers / can afford to move / go with firm* • Poorer MEDC people (e.g. E. European labourers) move *to improve QOL / be with family / where migration is permitted (EU).* • Accept retired movements *if their affluence/ financial status is offered as explanation* *This is MEDC only. Do not credit impacts. Allow 1 mark max for explanations of people's movement that do not explicitly provide any characteristic(s).*	(3)

Level	Mark	Descriptor
2	3	Provides a well-exemplified and explained account of a single type. Or describes movement of both poor and rich (so a diverse answer) and can explain at least one category simply.
1	2-1	Describes the movement of rich and /or poor but does not explain. Or may give basic explanation of a single type (e.g. skills needed)

Question Number	Question	
6.	(c)	
	Indicative content	Mark
	Social factors (health / nutrition / famine, education, family, marriage, religion, QOL, crime, racial prejudices) are important influences on the decision to migrate. Allow broader interpretation of social factors to include cultural ideas e.g. arts, music, entertainment, "social / night life" and political factors (war) However, while these factors influence the decision to migrate, migration is also dependent on regulatory frameworks, travel costs & routes as well as other intervening obstacles and opportunities (recognition of this is especially indicative of top band content). *Watch out for non-social factors e.g. wages – these must be linked to QOL / social ideas (e.g. more money to educate children)*	(6)

Level	Mark	Descriptor
3	6-5	Provides <u>good details</u> of a variety of social push and pull factors. At full marks, may acknowledge that the desired movement is not always possible due to other factors (so 'social' is a weak force if money /politics interfere). Examples are convincing.
2	4-3	Asserts the importance of push and pull factors for recognisable migrations (may provide list). Emphasis on social factors may not always be secure (drifts into economic). For 4 marks expect balance (push/pull) or superior treatment of one at the expense of the other. Recognisable examples.
1	2-1	<u>May</u> omit either push or pull. May not understand "social". No examples.

(Total marks 20)