Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners’ meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:
- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:
- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.
Population

Question | Answer | Marks
--- | --- | ---
1(a)(i) | **Fig. 1.1 shows the top six causes of death for LICs and HICs in 2012. Using Fig. 1.1:**
state which causes of death are found in both LICs and HICs;
Point mark – any two from heart disease, stroke, respiratory infections | 2

1(a)(ii) | **state the number of deaths per 100 000 population from HIV/AIDS in LICs.**
65 (per 100 000 population) | 1

1(b) | **Using evidence from Fig. 1.1, suggest two reasons why the physical environment can be a factor in the causes of death in LICs.**
1 mark per appropriate reason plus 1 mark for supporting answer(s) with evidence from the table.

Evidence could include:
- High incidence of Malaria – spread by insects and marshy conditions
- Diarrhoea caused by unclean water and hot conditions
- Pollution such as wood stoves causing respiratory problems
- Other causes of death if convincingly linked to the physical environment, e.g. poor soils, so low calorie diet, so less heart disease as less obesity | 3

1(c) | **Explain why death rates of females have decreased in many LICs/MICs.**
This is a fairly recent phenomenon and reflects a number of factors. These could include:
- Higher levels of education of females
- Better medical care, especially at birth
- Female emancipation so females have greater say in their lifestyles (especially over number of children) / have own career so higher incomes
- Better diets so less malnutrition
- Greater agricultural production so fewer die of starvation (often females sacrificed themselves to keep children alive)
- Greater care over social habits, e.g. AIDs

Accept generic reasons that apply to all people.

Point mark: 1 mark per point or 2 if point developed with detail and / or example. | 4
### Population/migration

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Marks</th>
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</thead>
<tbody>
<tr>
<td>2(a)(i)</td>
<td>Table 2.1 shows the percentage of international migrants by selected age groups for HICs and LICs in 1990, 2000 and 2010. Using Table 2.1, state the percentage of international migration in 2010 that was 34 years and under for:</td>
<td>1</td>
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<tr>
<td></td>
<td><strong>HICs:</strong> 35.2</td>
<td></td>
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<tr>
<td>2(a)(ii)</td>
<td><strong>LICs:</strong> 62</td>
<td>1</td>
</tr>
<tr>
<td>2(b)</td>
<td><strong>Suggest two reasons why there were less young international migrants (34 years and under) in HICs than in LICs.</strong></td>
<td>3</td>
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<tr>
<td></td>
<td>Point mark – 1 × 2 with extra mark for development or detail.</td>
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<tr>
<td></td>
<td>If more than two take best two.</td>
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<tr>
<td></td>
<td>Reasons could include:</td>
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<tr>
<td></td>
<td>• Costs of migration mean only older can afford to migrate in HICs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• More are in full time education in HICs</td>
<td></td>
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<tr>
<td></td>
<td>• Migration is stronger in other groups, e.g. older for retirement in HICs but these are weaker in LICs as often ill or infirm</td>
<td></td>
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<tr>
<td></td>
<td>• More young people in LICs have the motivation to migrate to better their situation – HIC young people are more content / inert</td>
<td></td>
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<tr>
<td></td>
<td>• Political controls over movement – e.g. visas</td>
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<tr>
<td>2(c)</td>
<td><strong>Suggest how education influences international migration.</strong></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>There are a number of ways of answering this, so one reason well developed could gain a maximum if well supported with an example or data or a range of points in less detail.</td>
<td></td>
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<tr>
<td></td>
<td>The role of education influences international migration in a number of ways. These include:</td>
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<tr>
<td></td>
<td>• It provides major pushes and pulls for young people, e.g. some migrate to improve their education (to colleges abroad)</td>
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<tr>
<td></td>
<td>• It equips people to seek better paid jobs abroad, e.g. doctors</td>
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<td></td>
<td>• Education improves the perception and understanding of opportunities elsewhere</td>
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<td></td>
<td>• Some countries operate controls that consider the level of education</td>
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<td></td>
<td>• Higher education tends to increase ambition and reduce inertia</td>
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<td></td>
<td>• The higher the education level, the later people have children which would hinder the ability to migrate</td>
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<td></td>
<td>Point mark – 1 mark per point or 2 if point developed with detail and/or example.</td>
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</table>
Population/Migration/Settlement dynamics

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Marks</th>
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<tbody>
<tr>
<td>3(a)</td>
<td>Fig. 3.1 shows population growth in Chicago, USA, an HIC, 1880–2010. State the population of Chicago in 1980. 3 million or 3m – allow ± 1</td>
<td>1</td>
</tr>
<tr>
<td>3(b)</td>
<td>Using data from Fig. 3.1, describe the changes in the population of Chicago from 1880 to 2010. Population increased rapidly up to 1940 (1) Increased 1940–60 at slower rate (1) Reached maximum of 3.5m in 1960, then declined (1) The rate of increase was steeper than the decrease (1) Decrease was rapid 1960–1980, then slowed (1) Reserve 1 mark for use of data (dates/numbers) – max 2 if no data. Point mark to maximum of 3 marks.</td>
<td>3</td>
</tr>
<tr>
<td>3(c)</td>
<td>Explain why population has moved out of the inner areas of cities in HICs. Point mark with 1 per point or 2 if point developed to the max of 6. Reasons could include: Pushes from the inner areas such as • High cost of rents / rates / land in CBD • Traffic congestion making deliveries difficult • High cost of (and competition for) labour so jobs move out • Inner area redevelopment (at lower density) • Fear of crime/violence Pulls from other areas such as • Cheaper housing • Larger houses with gardens • Larger sites at lower costs, so industry/retail can expand • Easier transport/access and parking • Development of private/state housing developments Other factors such as planning controls, environmental issues, movement out of population.</td>
<td>6</td>
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Section B

Answer one question from this section.

Population

<table>
<thead>
<tr>
<th>Question</th>
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<th>Marks</th>
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<tbody>
<tr>
<td>4(a)</td>
<td>Describe how food shortages occur.</td>
<td>7</td>
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</tbody>
</table>

There are numerous reasons why food shortages occur including:
- Natural disasters – floods, droughts, disease, pests, etc. destroy crops and livestock
- Poor farming practices, e.g. overgrazing leading to soil erosion, excessive focus on export, non-food crops
- Excessive population growth, e.g. sudden influx of migrants
- Poor storage or processing of food
- Lack of transport to transfer food to areas of need
- Growing export/non-food crops rather than food crops
- Social disruption, e.g. war
**Question 4(b)**

**Answer**

Explain two ways of reducing food shortages.

If more than two credit best two.

This is about reducing food shortages which is more than just improving farm production – it would include transport, storage and processing of the farm produce. Equally, the demand can be reduced. There are many ways of structuring this answer such as:

- Improving technology = machines speeding cultivation on or extending the farmed area, use of ICT to control processing and storage, use of chemicals, new hybrid breeds of plants and animals, hydroponics, use of more effective refrigerated transport, crop spraying from the air
- Innovation = transferring techniques from other areas/cultures, new crops/animals, use of waste or by-products from crops or animals, more efficient processing and packing
- Increased intensification vs extensification – bringing more marginal areas into cultivation
- Reducing consumer numbers via migration and/or anti-birth policies
- Reducing waste food or rationing so fewer shortages
- Importing food from areas of surplus
- Emergency aid
- Exchanging cash crops/non-food crops for food crops

Award marks based on the quality of explanation and breadth of the response using the marking levels below.

**Level 3**
Response clearly explains in detail the role of two ways of reducing food shortages – equal balance between the two. Response is well founded in detailed knowledge and strong conceptual understanding of the topic. Any examples used are appropriate and integrated effectively into the response.

6–8

**Level 2**
Response offers some explanation of the role of two ways of reducing food shortages – there may not be equal balance between the two ways. Response develops on a largely secure base of knowledge and understanding. Examples may lack detail or development.

3–5

**Level 1**
Response is largely descriptive with limited explanation of the role of two ways of reducing food shortages or one may be clearly missing. Knowledge is basic and understanding may be inaccurate. Examples are in name only or lacking entirely.

1–2

**Level 0**
No creditable response.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Marks</th>
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</table>
| 4(b)     | Explain two ways of reducing food shortages.  
If more than two credit best two.  
This is about reducing food shortages which is more than just improving farm production – it would include transport, storage and processing of the farm produce. Equally, the demand can be reduced. There are many ways of structuring this answer such as:  
- Improving technology = machines speeding cultivation on or extending the farmed area, use of ICT to control processing and storage, use of chemicals, new hybrid breeds of plants and animals, hydroponics, use of more effective refrigerated transport, crop spraying from the air  
- Innovation = transferring techniques from other areas/cultures, new crops/animals, use of waste or by-products from crops or animals, more efficient processing and packing  
- Increased intensification vs extensification – bringing more marginal areas into cultivation  
- Reducing consumer numbers via migration and/or anti-birth policies  
- Reducing waste food or rationing so fewer shortages  
- Importing food from areas of surplus  
- Emergency aid  
- Exchanging cash crops/non-food crops for food crops  
Award marks based on the quality of explanation and breadth of the response using the marking levels below. | 8 |
4(c) ‘The concept of carrying capacity is irrelevant in the modern technological age.’

With the aid of examples, to what extent do you agree?

Candidates are free to develop their own approach to the question and responses will vary depending on the approach chosen. Whichever route is chosen, essays which assess and support their argument with relevant examples will be credited. There may be detailed consideration of one or more examples or a broadly conceived response, drawing on several examples to illustrate the factors involved.

Carrying capacity is stated in the syllabus, so candidates are expected to have a clear appreciation of its meaning: The *carrying capacity* of a biological species in an environment is the maximum population size of the species that the environment can sustain indefinitely, given the food, habitat, water, and other necessities available in the environment.

Some may apply the Malthus and Boserup approaches to the issue. Those supporting the Malthusian view would disagree whilst those supporting Boserup would agree. Technology can alter the carrying capacity but only up to a point when declining marginal returns set in.

Higher level responses may recognise that it may vary with location, levels of technology, nature of the population.

Award marks based on the quality of the response using the marking levels below.

**Level 4**
Response thoroughly assesses the extent to which carrying capacity is still valid in the modern technological age with some recognition it may vary over time and space (scale). Response has good contextual understanding of the nature of carrying capacity. Response is well founded in detailed knowledge and strong conceptual understanding of the topic.

12–15

**Level 3**
Response assesses some of the extent to which carrying capacity is/is not still valid in the modern technological age but may not consider that it may vary with time and over space. Examples may lack detail or development. Response develops on a largely secure base of knowledge and understanding.

8–11

**Level 2**
Response shows general knowledge and understanding of carrying capacity and its validity in the modern technological age. Response is mainly descriptive or explanatory with limited use of examples and understanding of the topic may be partial or inaccurate. Some concluding remarks. General responses without the use of example(s) will not get above the middle of Level 2 (6 marks).
<table>
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<th>Question</th>
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<th>Marks</th>
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<tbody>
<tr>
<td>4(c)</td>
<td><strong>Level 1</strong>&lt;br&gt;Response may broadly discuss the concept of carrying capacity but does not address the question and does not come to a convincing conclusion. Response is descriptive, knowledge is basic and understanding is poor.</td>
<td>1–3</td>
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<tr>
<td></td>
<td><strong>Level 0</strong>&lt;br&gt;No creditable response.</td>
<td>0</td>
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## Migration

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<tr>
<th>Question</th>
<th>Answer</th>
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| 5(a)(i)  | **Describe the process of chain migration.**  
  *Chain migration* refers to the social process (1) by which immigrants from a particular town follow others from that town (1) to a particular city or neighbourhood, whether in an immigrant-receiving country or in a new, usually urban, location in the home country (1). Use of an example (1).  
  Other definitions stress the cultural and ethnic links in the chain. Essentially, it is the process whereby one migrant pulls another (to whom they are linked) to that destination.  
  Point mark | | 3 |
| 5(a)(ii) | **Explain two consequences of the process of chain migration.**  
  Point mark: 2 × 2 marks with second mark in each case for development or detail such as an example. If more than two, take best two.  
  Do not double penalise – if part (i) wrong, e.g. step migration, then look for relevant consequences of it in (ii).  
  Consequences could include impacts on both origins and destinations:  
  - Concentrations of migrants of a similar ethnicity or culture – ethnic enclaves  
  - Lack of integration into the area’s culture – often leading to friction  
  - Sex/age imbalances – impact on birth rates  
  - Remittances sent back to origin  
  - Increases migration (often avoids legal restrictions on migration numbers)  
  - Increased levels of pollution (transport of the chain)  
  - Loss of economic vitality/output in source area but increase in destination  
  - Housing pressures on destination/multi-occupation/shanties/slums  
  - Changes in population | | 4 |
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<th>Question</th>
<th>Answer</th>
<th>Marks</th>
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<tbody>
<tr>
<td>5(b)</td>
<td>Explain how economic factors act as constraints to migration.</td>
<td>8</td>
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</table>

The syllabus identifies cost as a constraint on migration and candidates can legitimately build their explanation on how costs (of leaving, of moving, and resettling) limit migration depending on their size/scale, type and longevity.

Higher level responses may go beyond this to suggest the roles of opportunity costs (as in the intervening opportunity model) and other types of economic factors such as transport, employment.

Constraints are about how migration is limited by the factors.

Award marks based on the quality of explanation and breadth of the response using the marking levels below.

**Level 3**
Response outlines in detail a range of economic factors (or costs in detail) and makes clear links to how they result in constraints for migration.
Response is well founded in detailed knowledge and strong conceptual understanding of the topic. Any examples used are appropriate and integrated effectively into the response.

**Level 2**
Response offers some explanation of economic factors – probably only relative economic push and pull factors acting to constrain migration.
Response develops on a largely secure base of knowledge and understanding. Examples may lack detail or development.

**Level 1**
Response has descriptive points about the constraints on migration. Knowledge is basic and understanding may be inaccurate. Examples are in name only or lacking entirely.

**Level 0**
No creditable response.
### Question 5(c)

**With the aid of examples, assess the extent to which push factors are more important than pull factors in causing migration.**

Candidates are free to develop their own approach to the question and responses will vary depending on the approach chosen. Whichever route is chosen, essays which evaluate and support their argument with relevant examples will be credited. There may be detailed consideration of one or more examples or a broadly conceived response, drawing on several examples to illustrate the factors involved.

Generally, push factors (from an area) outweigh pull factors (to an area or back to the original area as in Lee’s model of migration) when a migrant leaves a place, especially in forced or economic migration. Pull factors tend to work as a secondary factor in determining the destination between alternatives once the migrant is determined to migrate.

Higher level responses may recognise that the balance between push and pull factors may vary with time/development, with location, for different groups and the exact scale and nature of the push and pulls (and the perception of them by the individual migrant).

Award marks based on the quality of the response using the marking levels below.

<table>
<thead>
<tr>
<th>Level 4</th>
<th>12–15</th>
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<tbody>
<tr>
<td>Response thoroughly evaluates whether push factors do outweigh pull factors in causing migration. Response has good contextual understanding of the causes of migration. Response is well founded in detailed knowledge and strong conceptual understanding of the topic.</td>
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<thead>
<tr>
<th>Level 3</th>
<th>8–11</th>
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</thead>
<tbody>
<tr>
<td>Response evaluates some of the push vs pull debate but keeps the evaluation fairly basic with limited appreciation that the balance may vary. Examples may lack detail or development. Response develops on a largely secure base of knowledge and understanding.</td>
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<tr>
<th>Level 2</th>
<th>4–7</th>
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<tbody>
<tr>
<td>Response shows general knowledge and understanding of a limited range of the pushes and pulls of migration. Response is mainly descriptive or explanatory with limited use of examples, and understanding of the topic may be partial or inaccurate. Some concluding remarks. General responses without the use of example(s) will not get above the middle of Level 2 (6 marks.)</td>
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<tr>
<th>Level 1</th>
<th>1–3</th>
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<tbody>
<tr>
<td>Response may broadly discuss the causes of migration but does not address the question and does not come to a convincing conclusion. Response is descriptive, knowledge is basic and understanding is poor.</td>
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</table>

<table>
<thead>
<tr>
<th>Level 0</th>
<th>0</th>
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<tbody>
<tr>
<td>No creditable response.</td>
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</table>
## Settlement dynamics

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<tr>
<th>Question</th>
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<tbody>
<tr>
<td>6(a)</td>
<td>For your case study of a rural settlement or rural area: describe the issues of its development and growth (or decline); This is purely description and will vary with the nature of the case study. Issues may cover: • Demographic – population numbers, birth/death rates, sex/age ratios • Environmental • Economic – employment, housing, income, transport • Social/cultural • Political – conflict Point mark with 1 mark per valid point or 2 if developed point. No credit for explanation.</td>
<td>7</td>
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</table>
Question | Answer | Marks
---|---|---
6(b) | **Explain the issues described in (a):**

Here the issues described in (a) need explaining either in a holistic way or issue by issue. Clearly these will vary with the case study.

Explanation could include:
- Environmental reasons – natural disaster, climate change, exhaustion of natural resources
- Demographic – high population growth, out/in migration
- Economic reasons – new cash crops, increased power supply, changes in accessibility, competition
- Social reasons – change in age/sex balance, change in ethnicity, increased education
- Historical
- Political reasons – government policies, increased insecurity

Award marks based on the quality of explanation and breadth of the response using the marking levels below.

**Level 3**
Response explains in detail why the issues have arisen. Response is well founded in detailed knowledge and strong conceptual understanding of the topic. Any examples used are appropriate and integrated effectively into the response.

**Level 2**
Response offers some explanation of why the issues have arisen. Response develops on a largely secure base of knowledge and understanding. Examples may lack detail or development.

**Level 1**
Response has largely descriptive points about the causes of the issues. Knowledge is basic and understanding may be inaccurate. Examples are in name only or lacking entirely.

**Level 0**
No creditable response.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Marks</th>
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</table>
| 6(c)     | **Assess the effectiveness of the responses to the issues.**  
Candidates are free to develop their own approach to the question and responses will vary depending on the approach chosen. Whichever route is chosen, essays which evaluate and support their argument with relevant examples will be credited. There may be detailed consideration of one or more examples or a broadly conceived response, drawing on several examples to illustrate the factors involved.  
Again, the exact assessment will vary with the nature of the chosen case study. Some recognition of the relative level of success is expected with some explanation of this. Again, candidates may treat it in a holistic way or issue by issue.  
The higher level responses may offer examples where effectiveness varies in its impact or with the differing views of various stakeholders. There may be recognition that effectiveness may vary with the nature of the response, local environment, scale of the response as well as the nature of the local population.  
Award marks based on the quality of the response using the marking levels below.  

**Level 4**  
Response thoroughly evaluates the effectiveness of the responses with some recognition that it varies over time and with the nature of the response/issue. Response has good contextual understanding of specific initiatives/strategies. Response makes clear links between strategy and how it impacts on the issue(s). Response is well founded in detailed knowledge and strong conceptual understanding of the topic.  

12–15|
| **Level 3**  
Response assesses some of the effectiveness of the responses but discussion may be unbalanced in favour of one response and may not consider that effectiveness could vary with time/space. There is some attempt to link responses to issue(s). Examples may lack detail or development. Response develops on a largely secure base of knowledge and understanding.  

8–11|
| **Level 2**  
Response shows general knowledge and understanding of a limited range of responses to the issue(s). Response is mainly descriptive or explanatory with limited use of examples, and understanding of the topic may be partial or inaccurate. Some concluding remarks. General responses without the use of example(s) will not get above the middle of Level 2 (6 marks).  

4–7|
| **Level 1**  
Response may broadly discuss responses but does not address the question and does not come to a convincing conclusion. Response is descriptive, knowledge is basic and understanding is poor.  

1–3|
| **Level 0**  
No creditable response.  
0|