



ASSESSMENT and  
QUALIFICATIONS  
ALLIANCE

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# Mark scheme January 2004

## GCE

### Geography A

### Unit GGA1

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## General Guidance for Examiners

### Quality of Written Communication

As required by QCA, the marking scheme for this unit includes an overall assessment of quality of written communication. There are no discrete marks for the assessment of written communications but where questions are “Levels” marked, written communication will be assessed as one of the criteria within each level.

**Level 1:** Language is basic, descriptions and explanations are over simplified and lack clarity.

**Level 2:** Generally accurate use of language; descriptions and explanations can be easily followed, but are not clearly expressed throughout.

**Level 3:** Accurate and appropriate use of language; descriptions and explanations are expressed with clarity throughout.

### Levels Marking – General Criteria

The following general criteria relate to knowledge, understanding and their critical application and the quality of written communication as outlined in the AQA Geography A subject specification. They are designed to assist examiners in determining into which band the quality of response should be placed, and should be used when assessing the level of response an answer has achieved. It is anticipated that candidates’ performances under the various dimensions will be broadly inter-related and the general guidelines for each level are as follows:

**Level 1:** An answer at this level is likely to:

- display a basic understanding of the topic;
- make one of two points without support of appropriate exemplification or application of principle;
- demonstrate a simplistic style of writing perhaps lacking close relation to the term of the question and unlikely to communicate complexity of subject matter;
- lack organisation, relevance and specialist vocabulary;
- demonstrate deficiencies in legibility, spelling, grammar and punctuation which detract from the clarity of meaning.

**Level 2:** An answer at this level is likely to:

- display a clear understanding of the topic;
- make one or two points with support of appropriate exemplification and/or application of principle;
- demonstrate a style of writing which matches the requirements of the question and acknowledges the potential complexity of the subject matter;
- demonstrate relevance and coherence with appropriate use of specialist vocabulary;
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which do not detract from the clarity of meaning.

**Level 3:** An answer at this level is likely to:

- display a detailed understanding of the topic;
- make several points with support of appropriate exemplification and/or application of principle;
- demonstrate a sophisticated style of writing incorporating measured and qualified explanation and comment as required by the question and reflecting awareness of the complexity of subject matter and incompleteness/tentativeness of explanation;
- demonstrate a clear sense of purpose so that the responses are seen to closely relate to the requirements of the question with confident use of specialist vocabulary;
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which contribute to complete clarity of meaning.

NB A perfect answer is not usually required for full marks. Clearly it will be possible for an individual candidate to demonstrate variable performance between the levels. In such cases the principle of best-fit should be applied. Experience suggests that the use of exemplars within this mark scheme and the discussion which takes place during the Standardisation Meeting normally provides sufficient guidance on the use of levels in marking.

### **Annotation of Scripts**

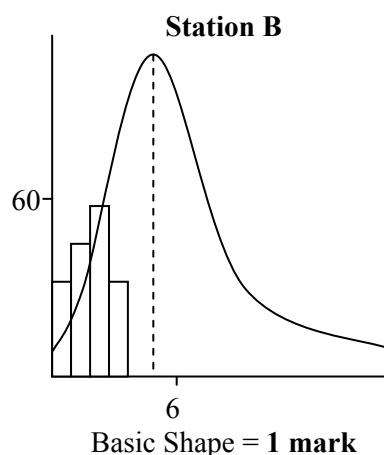
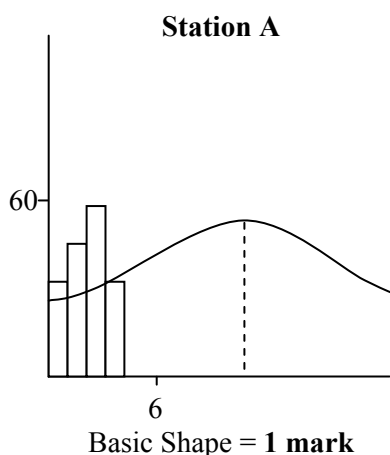
- Where an answer is marked using a levels of response scheme the examiner should annotate the script with ‘L1’, ‘L2’ or ‘L3’ at the point where that level is thought to have been reached. The consequent mark should appear in the right hand column. Where an answer fails to achieve Level 1, zero marks should be given.
- Where answers do not require levels of response marking, each script should be annotated to show that one tick equals one mark. It is helpful if the tick can be positioned in the part of the answer which is thought to be credit-worthy.

### **General Advice**

It is important to recognise that many of the answers shown within this marking scheme are only exemplars. Where possible, the range of accepted responses is indicated, but because many questions are open-ended in their nature, alternative answers may be equally credit-worthy. The degree of acceptability is clarified through the Standardisation Meeting and subsequently by telephone with the Team Leader as necessary.

**Question 1**

(a) (i)



**1 mark**  
**1 mark**

3<sup>rd</sup> mark – shorter lag time on B than A **or** higher base flow on hydrograph A than B

**1 mark**  
**(3 marks)**

(ii)

**Station A** has a longer lag time because it has

- an elongated river basin, it takes longer for rain falling at the edge of the basin to reach station A. (max 2 marks)

Where as **Station B** has

- a circular river basin, all the points on the watershed are a similar distance to station B. (max 2 marks)

**up to 3 marks**

**Station A** has a longer lag time than B because

- the relief in basin B is steeper than in basin A, (from 275m to 20m within B, from 105 to 35m in A), so water will enter river B more quickly.

**up to 3 marks**

**Station A** the land use here is woodland, some of the precipitation will be intercepted, lowering the peak discharge. Plant roots will also reduce throughflow. In station B the grassland vegetation will have less effect.

**up to 3 marks**

**Station A** There is a large reservoir, this will hold back some of the available precipitation and will even out the hydrograph in Figure 2A. This would account for the higher base flow in A and could lower peak discharge.

**up to 3 marks**

To achieve 5 marks, at least two separate points must be identified (2+3) (2+2+1) (1+3+1), up to 3 marks for each reason.

**(5 marks)**

- (b) The variation in global regimes is predominantly linked to climate and vegetation, however, men's influence is also valid. The **Regime** is the Annual Pattern of Discharge.

### Physical

- Equatorial climates/tropical rainforests, high and fairly steady levels of discharge throughout the year due to rainfall, often in excess of 2000mm p.a. (However, evapo-transpiration is high, due to temperatures > 28°C and dense vegetation).
- In hot-deserts, precipitation is < 250mm p.a. – discharge is minimal occasional flash floods after a rain storm.
- In mountainous areas, such as the Alps, where temperatures are very low during winter months, discharge will be seasonal. High discharge will occur during spring and summer due to snow and glacier melt water. Seasonal regimes also occur in Mediterranean areas due to the rainfall pattern.
- In Monsoon climates, discharge will increase rapidly due to heavy precipitation during the rainy season.

[Accept any sensible climatic factor]

### Human

- Some rivers have been altered by man. For example the Aswan Dam on the River Nile and the Hoover Dam on the Colorado have respectively evened out or reduced the discharge.

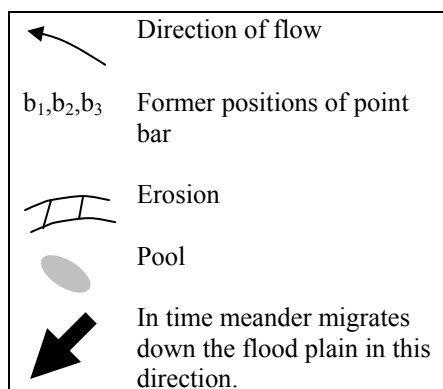
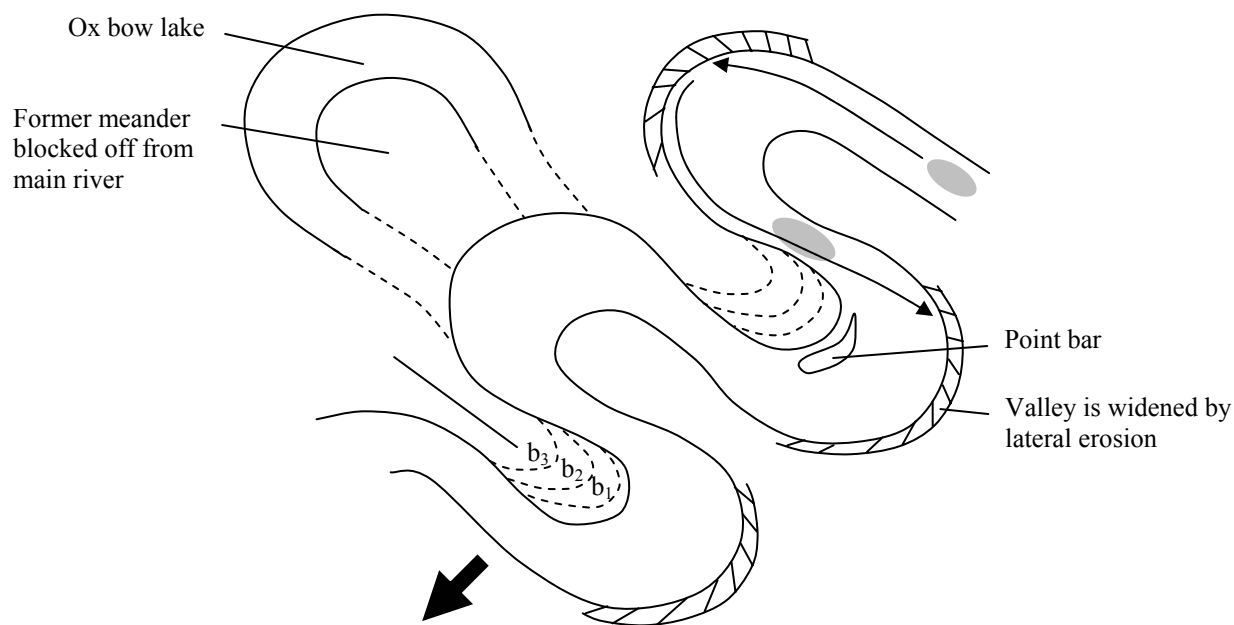
**Level 1 Basic description;** At the bottom of the level the answer will probably describe why some rivers flood in various parts of the world and the understanding of the term Regime will be suspect. A basic comparison of two rivers might be offered. **1-3 marks**

**Level 2 Clear;** The term regime will be clearly understood. A comparison will be made of rivers in regions, which are named, although there will be little to tie the answer specifically to the examples. There will be a hint of explanation. **4-5 marks**

**Level 3 Detailed;** There will be more detail/precision in an answer at this level, for example 'rivers in tropical rainforests, such as the Amazon in Brazil, have a constant discharge because precipitation is high throughout the year, over 2000mm p.a.' Good use of geographical terms. **6-7 marks**  
**(7 marks)**

**Question 2**

- (a) (i) Very fine clay = **Transport** **1 mark**  
 Sand = **Erosion** **1 mark**  
 Small Boulders = **Deposition** **1 mark**  
**(3 marks)**
- (ii) Identification of Relationship: **1 mark**
- This is a positive relationship **1 mark**
  - At faster velocities only the larger particles are deposited, eg boulders at 300cm/sec compared with silt at velocities below 0.5cm/sec **or alternatively** at lower velocities, much smaller particles are deposited and ... **up to 3 marks**
- Reasons: **1 mark**
- As the velocity of a river falls it has less energy **1 mark**
  - It no longer has the competence or capacity to carry all its load **1 mark**
  - Starting with the largest particles, material starts to be deposited **(5 marks)**
- Up to 3 marks for relationship, up to 3 marks for reasons. (3+2) or (2+3).
- (b)
- Firstly, a description of helicoidal flow and erosion on the outside of a meander bend, and deposition on the inside of the bend is expected.
  - Meanders can become exaggerated and will eventually become cut off forming an ox bow lake.
  - As erosion continues on the outer bend, the whole meander can migrate downstream.
  - Meanders can also migrate laterally and erode the flood plain.
  - An answer such as this is difficult without the use of diagrams.
- Level 1** A weak description of erosion on the outside of the bend of a meander and deposition on the inside at the bottom of the level perhaps leading to Ox-Bow lakes for 3 marks **1-3 marks**
- Level 2** As above, but with the use of diagrams to aid description. Some explanation offered, i.e. erosion occurs on the outside bends because velocity is greater as there is less friction. **4-5 marks**
- Level 3** At this level the answer will acknowledge that meanders can migrate **downstream or laterally** and there will be a diagram such as the one overleaf. Good use will be made of geographical terms. **6-7 marks**  
**(7 marks)**



**Question 3**

- (a) (i) • El Nino – has become more frequent since the mid 1960's **1 mark**
- El Nino, between 1914 to 1965, roughly 20+ years apart, then more frequently, every 4-6 years (sensible use of dates) **1 mark**
- La Nina – no obvious pattern, although more common earlier in the century, it has been a less frequent visitor since the mid 1970's than El Nino **1 mark**
- La Nina sensible use of dates **1 mark**  
**(3 marks)**
- (ii) La Nina years, (more than 50% of the country affected) with **above** average rainfall. Accept named territories. **1 mark**
- During La Nina years, Western Australia and Southern and SE coast are least affected, i.e. don't have above average rainfall. **1 mark**
- El Nino years – lower than average rainfall/drought. **1 mark**
- Affects the E and SE parts of the country **1 mark**
- Approximately 1/3 or 30% of the total area is affected, named territories acceptable, Queensland, Victoria and N.S.Wales. **1 mark**
- Least affected areas are Western Australia and the Northern Territories. **1 mark**  
**(5 marks)**
- (b) The answer must concentrate on economic impacts e.g. the effects of drought on agricultural yields in Australia and the effect of increased rainfall on the economy of Peru. Also relevant would be the effect on the Peruvian fishing industry. Positive effects might include, filling reservoirs in Chile for H.E.P. and water supply.
- Level 1** A description of events, physical, social and economic, caused by El Nino. The answer will be general and may refer to impacts of El Nino outside the Pacific basin. **1-3 marks**
- Level 2** A more focused answer, which covers well the economic impacts of El Nino on one Pacific basin country, e.g. drought in Australia. **4-5 marks**
- Level 3** The answer will relate to more than one country, and detail given will be more specific to the named countries. If both positive and negative economic effects are referred to, an answer will be in this band. **6-7 marks**  
**(7 Marks)**



**Question 4**

- (a) (i)
- Rise in temperature **1 mark**
  - Increase in precipitation (summer thunderstorms) **1 mark**
  - Increase in cloud cover/less sunlight **1 mark**
  - Reduction in wind speeds/localised increase, wind tunnels. **1 mark**
  - Increase in fog in winter **1 mark**
  - Lower humidity **1 mark**
- (3x1 marks) **(3 marks)**
- (ii) Depending on changes identified, the explanations will be linked to the way in which urban areas affect local climate conditions e.g.
- An increase in housing density will lead to more car owners living in the area. Increased cloud cover occurs in cities because urban areas create more dust and other particles (e.g. from vehicles). Such particles reflect and absorb up to 50% of incoming radiation in winter, when the sun is low in the sky and has to pass through more of the atmosphere. Higher rise housing also blocks out more sunlight.
- Expect to see explanations for rise in temperature firstly.  
Any valid explanation can be credited. **Up to 3 marks**  
For all marks, at least two weather changes in (i) will be explained. **(5 marks)**

(b) Human causes

Traffic gives out unburned hydrocarbons/gases nitrous oxides act as catalysts. This is particularly true where vehicles are old and are not fitted with modern catalytic converters.

- In some places, public transport is limited so most households own at least one car, which they use to commute daily.
- In some locations, street designs in central areas of cities are narrow and there is much congestion, which adds to particulate pollution.
- Wind speeds are lower in cities due to high-rise buildings so the particles are less likely to be dispersed.

Physical causes

Anticyclonic/high pressure weather with still, sinking air, therefore, little dispersal. No rainfall to help disperse dust particles. Very importantly high levels of sunshine, where a photo-chemical process occurs which produces high levels of ozone.

Some cities, such as Mexico city, Oxford, lie in a basin. Surrounding mountains act as a barrier to dispersal, so relief exaggerates the effect.

<b>Level 1</b>	A basic description of the human cause of photochemical smog, which maybe linked to human health. .	<b>1-3 marks</b>
<b>Level 2</b>	Either human or physical causes will be well covered. A city will be named although the causes described will non-specific.	<b>4-5 marks</b>
<b>Level 3</b>	At this level the causes will relate clearly to the named city, both physical and human causes of photochemical smog will be examined competently.	<b>6-7 marks</b>

**(7 marks)**

**Question 5**

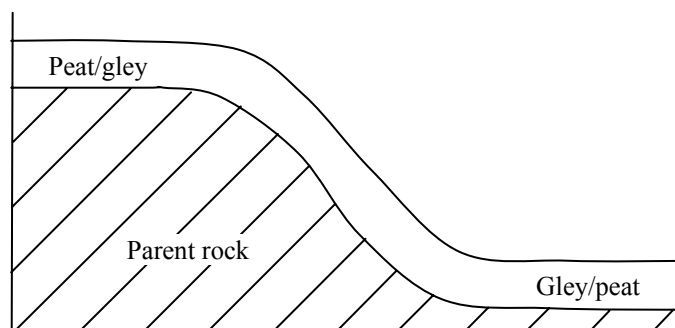
- (a) (i) x = evaporation/evapo-transpiration **1 mark**  
 y = leaching/eluviation **1 mark**  
 z = hardpan/ironpan **1 mark**
- (ii) An understanding of what salinisation is i.e. a salt crust building up in the A horizon of the soil. **1 mark**
- Evapo-transpiration is greater than precipitation/ because temperatures of 30°C are high and the rainfall arrow suggests low rainfall. **up to 2 marks**
  - Capillary action occurs/ as the water table is fairly near the surface, water is drawn upwards to the surface, salts are carried in this water in solution and are deposited in the A horizon. **up to 3 marks**
  - The input of irrigation water can accelerate the process again due to the evapo-transpiration in hot climates. **up to 2 marks**
  - (1,3,1) (2,3) (2,2,1) **(5 marks)**

- (b) Azonal soils are immature or young soils. They occur where soil processes have had insufficient time to operate fully. They show very clearly the characteristics of their **origin** e.g. parent rock, they have poorly defined horizons and are not linked to climate or vegetation.

Examples are: **Scree** (related to weathering)  
**Alluvium** (rivers)  
**Till** (Ice – Glacial)  
**Sands and gravel** (fluvio – glacial)  
**Sand dunes** (marine)  
**Salt marsh** (marine)  
**Volcanic** (tectonic)

Intrazonal soils reflect the dominance of local factors such as **parent rock** or **extremes of drainage** (not climate)

- Calcimorphic or Calcareous soils – develop on limestone - soils here are Terra Rossa or Rendzina, and tend to be red coloured and relatively thin.
- Hydromorphic soils are those with poor drainage and are very high in water content, such as peat or gley. Peats and gleys can develop at different places on a slope, as part of a soil catena, so are related to drainage, rather than climate or parent rock.



- Halomorphic soils contain high levels of salt and may develop due to salinisation occurring in hot dry climates where mineral salts rise to the surface due to capillary action and where the parent rock or groundwater contains salts.
- Do not credit zonal soils.

- Level 1** Describes either Azonal or Intrazonal soils basically. Use of figure 6b is acceptable here to describe an Intrazonal soil. **1-3 marks**
- Level 2** Understands the difference between the two classifications of soils but is unable to name an example other than a saline soil. Describes one group of soils well. **4-5 marks**
- Level 3** Understands the differences between Azonal and Intra-Zonal soils and is able to name at least one example in each group. **6-7 marks (7 marks)**

**Question 6**

Jan 2004

- (a) (i) East/West divide, highest rates of acid rain are on the East side of the UK or lowest rates are on the West side.  
Extra marks available for more precise use of the map, eg highest rates around the Humber estuary/Yorks and Lincs coast  
Allow one mark for sensible use of values in support
- (ii)
- Acid rain can affect **soil** quality, brown earths deteriorate as their pH levels fall, a result of this is increased leaching.
  - Acid rain has attacked **woodland**, damage has been done to the Black Forest in Germany and the forests of Sweden, Poland and the Alpine nations. Damage to the upper foliage is often the first visible sign of attack. Needles or leaves discolour and turn yellow and dieback or defoliation occurs. Acid pooling around the roots can slowly kill the trees. This has important knock-on effects for the forest micro-climate and faunal habitats.
  - Winds blowing from the SW over Europe, have carried large amounts of pollutant, particularly sulphur dioxide and oxides of nitrogen, from the UK. These enter the atmosphere from power stations, vehicles, etc
  - In East Germany and Poland much of the coal used to generate electricity has a high sulphur content, so the problem of acid rain in these areas may be exaggerated. In Poland the costs of acid rain are equivalent to 10% of the country's GNP.
  - Forest dieback in the Swiss Alps is causing concern because it will increase potential damage by avalanches.
  - Afforestation of conifers has also been found to contribute to the problem of acidity.
  - Freshwater lakes and rivers in woodland areas have become more acid, this causes fish stocks, such as salmon to be damaged and affects food chains.
  - Acid rain also attacks rocks, such as limestone; pavements can be damaged.
  - The application of inorganic fertilisers has contributed to acid rain, increased levels of nitrous oxide can be blamed partly on arable farming. Arable farming is found mainly in South East England.

**1 mark****2 marks****(3 marks)****Each bullet point could be worth up to 3 marks (5 marks)**

- (b) The main theme of this question is the **negative environmental consequences** caused by deforestation for whatever reason, or the TRF.

**Water**

- Impact on the water cycle; increase in overland flow, leading to more frequent and more severe flooding.
- Flood risk is also raised due to the decrease in interception.
- Overland flow can lead to a greater sediment load in rivers.

**Soils**

- Increased soil erosion due to increased overland flow and gulleying.
- Associated risk of mud and landslides.
- Increased leaching, therefore greater nutrient loss from the A/O soil horizon.
- Reduced soil fertility.
- Formation of impermeable crusts on soil surface.

**Vegetation and Wildlife**

- Primary forest destroyed, secondary growth has reduced biodiversity, npp is reduced.
- Some species are threatened with extinction (both plants and wildlife) as their habitats and food sources are destroyed.

**Climate**

- Tree burning increases CO<sub>2</sub> levels, this contributes to global warming.
- Less evapotranspiration, less precipitation, higher temperatures.
- Reduced production of oxygen → also linked to global warming.

**Additionally**

Allow reference to Gold prospecting and the increase of poisonous mercury in rivers. Also relevant would be the damming of rivers for hydro-electric power and the unsequest loss of habitats for wildlife. Cattle ranching and its effect on soil quality could also be relevant. Reference to tourism/trampling/disturbance would have to be very well done to be convincing. For a response, which does not focus on the TRF, the maximum mark awarded should be at the top of level one. Do not credit acid rain here.

<b>Level One</b>	One negative effect, probably animal habitats or global warming will be mentioned, however the answer will not focus entirely on the question set. It might include the negative human consequences or might digress into the ways in which man makes use of the rainforest.	<b>1-3 marks</b>
<b>Level Two</b>	The answer focuses on a limited range of environmental consequences, however the effects of human activity on one aspect, eg <b>water/vegetation/soils</b> are well covered.	<b>4-5 marks</b>
<b>Level Three</b>	A broader answer, which considers the effects of human activity on at least two different physical components of the natural environment. Support is not necessary for a broad response, but where two aspects are covered in more detail, examples will probably be offered.	<b>6-7 marks</b>

**Question 7**

Ways in which human intervention can increase the risk of flooding.

- Building on floodplains
- Poor rivers management e.g. straightening and deepening of rivers like the Mississippi
- Prevention of flooding in one area can create more problems downstream e.g. Farakka Dam on the Ganges, India
- Deforestation e.g. in Nepal and effects on the Brahmatputra.

There will be other perfectly acceptable ways, however do not credit global warming because it is not really applicable **within** a drainage basin. Explanation should show an understanding of why the factor stated causes an increase in the risk of flooding.

**For example:** Building on floodplain creates impermeable surfaces. Water is unable to infiltrate into the ground, there is also less interception as vegetation has been removed. Water is channelled directly into rivers through drain and sewer systems, so river levels rise more rapidly.

**Level 1 (1-8 marks)**

At the bottom of the level (1-4 marks) there may be a description of a flood event, but little reference to man's interference.

For 5-8 marks one bullet point may be identified, but there will be only very limited explanation of why the risk of flooding is increased. Otherwise a couple of factors will be mentioned but there will be no explanation.

**Level 2 (9-15 marks)**

One type of human intervention will be identified and explained, and a valid river may be suggested for 9-11 marks.

At the top of level 2, for 12-15 marks, one factor will be well covered and the use of the named basin will be accurate. Substitute breadth for depth.

**Level 3 (16-20 marks)**

Two or more human factors will be identified and explained and the answer will be supported with reference to valid rivers.

At the top of the level, the quality of the language used sets the answer apart. Very good use is made of relevant terminology.



8. **Question 8** Identify and explain the atmospheric processes responsible for the formation of tropical revolving storms.

The vast majority of candidates will inevitably produce an answer, which regurgitate the conditions necessary for the formation of a storm of this nature and will probably be able to describe a cross section through a tropical revolving storm. Expect to see many answers giving a basic description of the nature and life cycle of a hurricane.

Only the better responses will be able to emphasise the atmospheric processes, such as convection, evaporation and condensation within the answer. Remember that this question is concentrates on the factors responsible for the **formation** of the storm

Candidates who mistakenly describe and explain a mid-latitude low-pressure system will probably be confined to level one, as some of the comments made may be applicable to both types of weather system, e.g. rising air in the centre of the low.

### **Descriptive points**

TRS are intense and violent storms, which are confined to the lower latitudes. They occur mainly between July and November in the N. hemisphere and between Jan. and March in the S. Hemisphere, when the earth's surface is at it's hottest because of the strength of the suns rays. They can measure up to 800km in diameter. Winds increase in speed from the edge towards the centre of the storm,etc.

### **Atmospheric Processes**

- Hurricanes move excess heat from the lower to the higher latitudes. They begin as small-scale low-pressure weather systems over a warm ocean, (>27degreesC). The sea water, heated by the tropical sun causes evaporation and warm moist air to rise around the centre of the low, drawing winds in along the surface to replace the air that has risen. Once a rising column of air over the ocean has become established, more air continues to converge and then to rise.
- The force caused by the rotation of the earth, (coriolis force), creates rotation in the rising air mass. The rising air starts to spin around the centre of the low pressure. The coriolis force does not exert much influence within 5 degrees of the equator.
- Intense instability occurs as the moist, warm air rises, cools and subsequently condenses, generating massive amounts of energy. Towering cumulo-nimbus clouds form, 10-12 km deep, producing torrential rainfall, (between 10-25cm per day), and thunderstorms. As much as 200 million tonnes of seawater per day can be recycled within a hurricane.
- The most powerful surface winds are close to the 'eye' of the storm, caused by the steep pressure gradient between the centre and the edge of the storm. Here the wind speed can measure up to 300km/hr.

At the very centre of the storm is an area of calm known as the eye. This is a zone of subsiding air where skies are clear and there is no rain.

**Level One (1-8 marks)**

At the bottom of the level (1-4 marks), there will be a weak description of a hurricane

For 5-8 marks expect to see some of the conditions necessary for the formation of a TRS, such as a warm sea, high temperatures and a sound description. Basically, an identification of the factors necessary for a hurricane to form, rather than the processes responsible.

**Level Two (9-15 marks)**

At the bottom of level two, (9-11 marks), one process involved in the initial formation of the storm will be introduced, perhaps by accident, and this will probably be the uplift of the air over the warm ocean. The answer will still be predominantly identification with only a hint of explanation but will be more focused on the formation of the storm.

For a higher-level two mark, between 12 and 15, expect the answer to identify more than one of the bullet points and to show more understanding. Whilst it will probably still be rather narrow it will explain accurately why one of the atmospheric processes detailed occurs.

**Level Three (16-20 marks)**

For 16-18 marks the answer will concentrate on the formation of the storm and will identify and explain at least three of the bullet points competently.

To achieve 19-20 marks the response will be well-organised and the quality of the language will be more sophisticated.

**Question 9**

Identification of the sequence of events leading through a plant succession to climatic climax may relate to any environment, although the question need will be better suited to a small scale system, such as a hydrosere, lithosere, psammosere etc.

- Primary succession, where a pioneer community develops with a limited number of simple species of plant
- Intermittent stages or seres, as more and larger species inhabit the environment.
- Climatic climax, when the dominant species or largest plant or tree (or most numerous species) lives in harmony or equilibrium with its local environment.
- A succession may take several thousands of years e.g. TRF

**Explanation**

- Climate exerts a major influence on the type of vegetation, which can grow in the first place.
- Local factors, drainage, parent rock and relief or microclimate may be of equal importance depending on the environment chosen.
- In early stages, as vegetation dies it decomposes and forms organic material which can be used by more complex plants. Lichens and mosses are often early colonists because they are able to survive without soil, in extremes of temperature and with little moisture. Lichens help to break up/weather parent rock.
- Accept annotated diagrams which show a plant succession
- In the final stage the vegetation is best suited to the environment. Decaying litter adds to the soil and provides nutrients for the continued growth of plants.

**Level 1** No understanding of plant succession, the candidate might describe a climax vegetation, such as a tropical rainforest. **1-4marks**

At the top of the level, although succession is largely absent from the answer, the candidate may explain why the climatic climax named e.g. Tropical rainforest, has developed here in relation to the climate. There may be a mention that it took many thousands of years for the forest to reach its equilibrium, but no identification of stages. **5-8 marks**

**Level 2** More often a small scale, and thus more useful, plant succession will be identified and at least two stages will be described including the initial pioneer community or the climatic climax. Alternatively accept a global example, if more than one stage is identified. Weak explanation. **9-11 marks**

Two stages of one succession will be identified and there will be an attempt to explain why the community developed initially and how changes occurred. Annotated diagrams on their own can be awarded up to 15 marks. Only rarely will a global example be able to reach the top of level 2. **12-15 marks**

- Level 3** A well described and explained plant succession, this will be a small scale example and more than two stages will be described and explained including the pioneer and climatic climax, additionally, species of plant will probably be named. **16-18 marks**
- At the top of level 3, the quality of language used sets the answer apart. Very good use is made of relevant geographical terminology. **19-20 marks (20 marks)**