MINISTRY OF EDUCATION

NAMIBIA SENIOR SECONDARY CERTIFICATE

GEOGRAPHY
SPECIMEN PAPERS 1 - 3 AND MARK SCHEMES
ORDINARY LEVEL
GRADES 11 – 12

THESE PAPERS AND MARK SCHEMES SERVE TO EXEMPLIFY THE SPECIFICATIONS IN THE LOCALISED NSSC GEOGRAPHY ORDINARY LEVEL SYLLABUS

2006
<table>
<thead>
<tr>
<th>Paper 1: Specimen Paper</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper 1: Mark Scheme</td>
<td>17</td>
</tr>
<tr>
<td>Paper 2: Specimen Paper</td>
<td>27</td>
</tr>
<tr>
<td>Paper 2: Mark Scheme</td>
<td>41</td>
</tr>
<tr>
<td>Paper 3: Specimen Paper</td>
<td>47</td>
</tr>
<tr>
<td>Paper 3: Mark Scheme</td>
<td>57</td>
</tr>
</tbody>
</table>
MINISTRY OF EDUCATION

Namibia Senior Secondary Certificate (NSSC)

GEOGRAPHY: ORDINARY LEVEL

PAPER 1
SPECIMEN PAPER

Additional materials:
Answer paper
Ruler

TIME 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces provided on the answer paper/answer booklet.

Answer all questions.

Write your answers on the separate answer paper provided.
If you use more than one sheet paper, fasten the sheets together.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part question. Sketch-maps and diagrams should be drawn whenever they serve to illustrate an answer.
1. (a) The four weather graphs W, X, Y and Z (Fig. 1) were drawn from information obtained at a school weather station over 7 days.

(i) Write down W, X and Y as a list and name the weather instruments used to collect the data shown on these graphs. [3]

(ii) State
   A the daily range of temperature on Day 2,
   B the pressure on Day 7,
   C the rainfall on Day 5. [3]

(iii) How is the information in graph X obtained? [2]

(b) The information for graph Z (Fig. 1) was obtained from a rain gauge.

(i) Describe the main features of a rain gauge. [3]

(ii) Explain how a rain gauge is used to measure the rain that has fallen. [2]

(iii) Look at Fig. 2 which shows four possible locations for a rain gauge at a school weather station (P, Q, R and S). Which of the sites would you choose, giving a reason for your answer? Give reasons why you rejected each of the other locations. [4]
(c) (i) Describe the main features of the climate shown above (Table 1) [3]

(ii) Give a reason for each of two of the features you have described in (c) (i). [2]

(d) Describe the main features of the natural vegetation found in a region with the climate you have described in (c) (i). [3]
Question 2

2. (a) Fig. 3 shows the plates at the earth's surface and the main earthquake zones.

(i) What are plates? [1]
(ii) Why do they move? [1]
(iii) From the map:

A name two plates shown on Fig. 3 which are converging (moving towards each other),
B state the location of a boundary between plates where two plates are moving away from each other. [2]

(iv) Suggest why earthquakes are not common in area X on Fig. 3. [1]

(b) A major earthquake occurred in Turkey in August 1999. Information about this earthquake is given in Fig. 4.

(i) What do figs 3 and 4 tell us about why earthquakes occur in Turkey? [2]

(ii) With the help of fig. 4, suggest reasons why this earthquake in Turkey had devastating effects on the people. [5]

(c) (i) Natural hazards include earthquakes, volcanic eruption, flooding, tropical storms. Select two of these natural hazards and for each, name the natural hazard and explain how people may reduce its effects. [3,3]

(ii) Why do many people continue to live in parts of the world where these natural hazards occur? [3]

(iii) Why might the effects of natural hazards continue to affect the areas concerned for a long time after they have take place? [4]
Fig. 3
Question 3

A Turkish earthquake kills thousands

An earthquake that struck north-western Turkey early on Tuesday morning left 15 000 dead and many injured.

Specialist teams dig through the night for survivors

Rescue workers were still tearing at the rubble early today, some with their hands, in a desperate effort to save thousands of people believed to be trapped in collapsed buildings across the western Turkey, after one of the most devastating earthquakes to strike the region in 20 years. The death toll late last night stood at 15 000 but was not rising steadily as aid workers in some of Turkey’s most populated and industrialised districts continued to pull bodies from wrecked buildings. Many people were crushed while asleep. Some of the bodies were shrouded in blankets and sheet from their own beds. Many lived in poor district were the buildings regulations are often ignored. The epi-centre was near the industrial city of Izmit, about 90 km east of Istanbul. Turkish authorities placed the earthquake at 6.7 on the Richter scale.

In the space of 45 seconds, water and power supplies were cut across the region, roads and communication links destroyed and up to 100 000 people left homeless. The earthquake lasted just 45 second. It happened at 03.02 hours. The result is a huge nightmare for relief services. Finding and treating survivors remains the priority, with damage to power, telephone and road networks hampering efforts to reach victims.

Tens of thousands of people are now living in the open, either because their homes are destroyed or because they fear their buildings are unsafe to live in.

3. (a) Study fig. 5 and describe how each of the main uses of water has changed from 1900 to 2000.

[3]
Fig. 6 compares the amount of water used daily per person in the home in rural areas of the United Kingdom and a LEDC (a developing country).

Amount of water used daily per person in the home in rural areas of the United Kingdom and in LEDC.

![Diagram of water usage](image)

**Figure 6**

(i) On your answer paper, copy down the following list. Use the letters given in Fig. 6 to complete the list to show the 5 main uses of water in homes in rural areas of the United Kingdom.

1 =
1 =
3 H
4
5

(ii) State the difference in litres in the amount of water used for 'washing' (A) in rural areas in the two countries.

(iii) State and explain two uses of water in the rural areas of the United Kingdom not shown for the rural areas of the LEDC.

(iv) Why is more water used per person in rural areas of the United Kingdom than in the LEDC country.
(c) The cartoon and information (Fig. 7 shows a situation which is found in many parts of the developing world.

![Cartoon of people walking to fetch water]

Walking Five Hours to Fetch Water

At least two-thirds of the world's population draws its water from sources outside the household and carries it in containers to their homes. In rural areas, women and children can spend several hours each day collecting water from a far-off-water hole. Imagine the effect on village life - water collection dominates the day - every day. The length of a typical day of a woman in rural India is 20 hours or more. On average she spends up to five hours fetching and carrying water with her other work - processing and cooking food, doing farm work, and collecting fuel and fodder - adds up to life of drudgery. In parts of East Africa, children start their school day at three o'clock in the morning with a 12 kilometres trek to fetch water. Access to water can be improved by installing more water points.

acknowledgement: Centre for World Development Education

(i) What influence does the collection and carrying of water have upon the lives of many people throughout the world? [2]

(ii) How could the situation shown be improved? [1]

(d) Locate a development you have studied where water plays an important part such as either a water supply scheme, or an irrigation project or a hydro-electric power scheme. Describe the development and explain its influence on the lives of people in the area located. [5]
(e)  The pollution of river water is a problem in many world areas.

(i)  Describe the main causes of river pollution.  [3]

(ii) Give your views on one of the following ways of reducing river pollution:

A.  fining those polluting river water,

B.  investing large amounts of money in water treatment schemes,

C.  educating people about the importance of clean river water.

Support your views with reasons.  [4]
Question 4

4. (a) Read the article below (Fig. 8a) on the fishing industry in Namibia and answer the following:

(i) What is meant by 'pelagic' and 'demersal' types of fish? [2]

(ii) Name an example of each. [2]

(iii) State two factors which cause problems for the Namibian fishing industry [2]

Fishing in Namibia has advantages and problems. Problems include a short fishing season and fluctuations in the distribution and abundance of fish. In recent years there has been a decline in the abundance and availability of fish - both pelagic and demersal.

There has been an increase in poisonous algae blooms and pollution from sea bed mining and exploration of oil and natural gas offshore. These factors have weakened the fishing industry.

The fishing industry has not learned from the crisis of the early 1980s when pilchards disappeared and anchovy stocks decreased because of overfishing. By 1981 most of the fish processing factories closed down.

Fig. 8a

(b) Study fig 8b

(i) What trend is shown by the diagram? [1]

(ii) Complete the bar for 1998 using the draft provided. [1]

(c) (i) Define ‘overfishing’ [2]

(ii) What measures may be taken to reduce overfishing? [3]

(iii) Why is overfishing difficult to control? [3]
(d) (i) Fig. 8c shows the main products processed from fish in Namibia. Why is a large amount of fishmeal produced? [2]


(iii) What problems may face the future expansion of the fish industry in Walvis Bay? [3]
Question 5

5. (a) Study Fig. 9 which shows the population structure of Kenya an LEDC (developing country) in Africa.

(i) A. What was the age range of the largest population group in 1985?
B. How many 15-19 year olds were there in 2000?
C. By how many did the 5-9 age group increase from 1985-2000 [3]

(ii) Why are the age groups over of 60 and under the age of 15 referred to as dependent population groups? [2]

(iii) Give four reasons why may developing countries, such as Kenya, have a large percentage of people below 15 years of age. [4]

(iv) How are developing countries, such as Kenya, attempting to reduce their population growth? [4]
(b) Annual population for Kenya and Germany (a developed country) are given below in Fig. 10

<table>
<thead>
<tr>
<th></th>
<th>Kenya</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth rate</td>
<td>47</td>
<td>11</td>
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<tr>
<td>(per 1000 population per year)</td>
<td></td>
<td></td>
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<tr>
<td>Death rate</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>(per 1000 population per year)</td>
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**Fig. 10**

(i) Calculate the annual population change for each country. [2]

(ii) Suggest two problems which may result for each of Kenya and Germany as a result of the rates of population change you have given in (b) (i). [2,2]

(c) Fig. 11 Shows HIV in pregnant women in Namibia in 2000.

(i) Describe what the diagram shows? [3]

(ii) Suggest how the growth of HIV/AIDS in Namibia might affect the structure of the country’s population. [3]
Question 6

6. Study the extract from a newspaper report on urban drift in Windhoek, Namibia (Fig. 12) and answer the questions:

(a) (i) What is meant by “urban drift”? [1]

(ii) What is an informal settlement? [1]

(b) (i) What percentage of Windhoek’s population was housed in the informal settlement? [1]

(ii) Describe some of the difficulties experienced by the people living in the informal settlements. [3]

(iii) How did the City Council try to deal with the shortage of housing? [1]

(c) (i) Give reasons why people in rural areas in LEDCs migrate into large cities like Windhoek. [6]

(d) City authorities in many LEDCs have tried a number of different measures to deal with informal settlements.

I they destroy the settlement and remove the residents

II they build high-rise apartment blocks to house the residents.

III they provide services (water, sewage disposal and electricity) in the existing informal settlements in the city.

IV they develop new areas where the residents may build houses on plots provided with services, small-scale industries and where loans are given for building materials.

What are your views on TWO of the measures I-IV?
Give reasons to support your views (4:4) [8]

(e) Why do City authorities in LEDCs find it difficult to deal with the problems of fast growing informal settlements? [4]
**Urban drift creates major headache**

| THE Windhoek Municipality cannot stop the increasing migration of people from rural areas to the city. People perceived freedom of movement as an opportunity to improve their living standards. As a result, many of those living in overcrowded conditions in Khomasdal and Katutura moved onto vacant land nearby, and many others migrated from rural areas throughout the country. New residents in informal settlements were vulnerable, had no land and were living in very unhygienic conditions with no easily accessible water or sewerage facilities. The annual population growth rate in Windhoek was 5.4 per cent of which 3.9 per cent can be resulted from migration.
Some 600 people were moving into Windhoek each month. Roughly one-third of the migrants settle in the informal areas, namely the north-western suburbs that developed from Katutura township, 70 per cent of Windhoek’s population was housed in this part of the city. The City was struggling to keep up with the demand for land, services and proper infrastructure. Between 1991 and 2001, the City Council tried to provide 6 000 serviced plots, but this was still far below the existing need. |

(Adapted from an article by Absalom Shigwedha in The Namibian newspaper 27/3/2002)

**Fig. 12**
Question 1

1 (a) (i) W maximum-minimum thermometer
   X wet-dry bulb thermometer / hydrometer,
   Y barometer. 3 at 1 mark

(ii) A 6° C,
     B 1010 mb,
     C 15mm. 3 at 1 mark

(iii) Dry bulb temperature,
     Wet bulb temperature,
     Difference,
     Use humidity tables,
     Read the °/age. 2 at 1 mark

(b) (i) funnel,
      container,
      jar / flask,
      measuring cylinder,
      funnel rim 30cm above ground. 3 at 1 mark

(ii) Water collects in glass jar,
     Emptied
     Into tapered glass measure / measuring cylinder,
     Scale on cylinder in mm,
     Tapered end allows small amounts of rain to be measured,
     Read once every 24hrs. 2 at 1 mark

(iii) S
     open location / on grass / away from sheltered position.
     P, Q too close to building.
     R sheltered by trees / not open position. 4 at 1 mark

(c) (i) high temperatures,
      little annual temperature range,
      heavy annual rainfall,
      rainfall every month / no dry season. 3 at 1 mark

(ii) 2 reasons 2 at 1 mark
(d) tall trees compete for sunlight,
little undergrowth – lack of sunlight,
heavy rainfall / high temperatures – wide variety of species,
evergreen – no seasonal rhythm,
waxy leaves / leathery texture / drip tips-
allow water to flow quickly off the leaves,
high rainfall – shallow roots – water found in top layer of soil,
n.b. look for a link with climate. 3 at 1 mark [3]
Question 2

2 (a) (i) Parts of earth’s crust / crust & upper part of the mantle. [1]
(ii) Convection currents in mantle. [1]
(iii) A Nazca & S American / Eurasian & Pacific
B between Antartica & Indo-Australian Plates / mid Atlantic. [1]
(iv) Away from plate boundaries / shield area / stable area. [1]

(b) (i) Near plate boundary, Arabian & African Plates moving north towards Eurasian Plate. 2 at 1 mark [2]
(ii) Many killed / injured,
Densely populated / industrialised,
Happened early morning / 03.02 many asleep
Collapsed buildings,
Building regulations ignored / poor quality buildings,
Strong / 6.7 on Richter Scale,
Relief services overwhelmed
Water / power supplies cut,
Roads destroyed,
100 000 homeless. 5 at 1 mark [5]

(c) (i) **earthquakes:**
Live away from areas of instability,
Forecasting,
Warning to public,
Build strong buildings,
Awareness / what action to take,
Practice drills,
Emergency services organised.

**volcanic eruption:**
some of the above,
evacuation,
take notice of warning signals – increased activity.

**flooding:**
build check dams,
plant trees,
dredging,
embank channel,
flood relief channels,
river straightening,
avoid building on low lying areas / flood plains / live in higher areas.
tropical storms:
forecasting,
leave on radio / TV,
store loose objects,
have supplies of drinking water, food etc.
board up windows etc.
stay indoors,
evacuation.
For each of the two natural hazards 3 + 3 marks [3,3]

(ii) Resources – soil / minerals,
Attractions for agriculture,
Forestry,
Industry,
Tourism etc.
Trade in cities – Tokyo, San Francisco, Los Angeles etc.
Infrequent occurrence – risk worth taking. 3 at 1 mark [3]

(iii) Devastation may cover a wide area,
Affect many people,
Magnitude of disaster,
Depends upon amount of aid received,
Infrastructure destroyed,
Takes a log time to repair / replace. 4 at 1 mark [4]
Question 3

3 (a) **agriculture:**
greatly increased use,
500 cu km in 1900, over 3000 cu km in 2000.

**industrial:**
gentle increase up to 1940,
rapid increase from 1950 to over 1000 cu km in 2000.

**domestic:**
Slow increase from then to 500 cu km in 2000.  
1 mark each [3]

(b) (i) 1=A  
1=B  
3 H  
4 E  
5 D  
=1 mark [2]

(ii) 37 litre (allow 36-38 litre) [1]

(iii) flushing toilet – limited sanitation in may parts of rural Bangladesh, watering car – limited car ownership.

2 statements & reasons or 2 statements.  
2 at 1 mark [2]

(iv) **differences in**
the standard of living, sanitation, car ownership, possession of washing machines, importance /uses made of gardens, greater availability of water in UK, UK more developed economy, more capital available in UK, more technology – reservoirs / pipelines.  
2 at 1 mark [2]

(c) (i) Time consuming, especially for women,
A large part of the day collecting water,
Early start to the day for children,
Tiring,
Prevents the following of other activities.  
2 at 1 mark [2]

(ii) Wells / piped water.

(d) (i) **location**
development  
Influence on people  
1 mark  
4 at 1 mark [5]
(e) (i) domestic sewage, industrial effluent, fertilisers and pesticides washed into river, power stations – hot water returned to rivers, discharge from river transport. [3 at 1 mark] [3]

(ii) Reasoned views on one of A - C [4 at 1 mark] [4]
Question 4

4 (a) (i) 2 definitions at 1 mark each. [2]

(ii) 2 examples at 1 mark each. [2]

(iii) 2 of:
  short fishing season,
  decline in fish,
  fluctuations,
  poisonous algae bloom,
  pollution. 1 mark each [2]

(b) (i) increase to 1993, since a decline. [1]

(ii) completion of bar. [1]

(c) (i) definition: too many fisherman
too few fish. 2 at 1 mark [2]

(ii) quotas,
  restricted areas,
  controlling net sizes,
  reducing the numbers of boats. 3 at 1 mark [3]

(iii) needs international co-operation,
  problem not along recognised,
  difficult to enforce. 3 at 1 mark [3]

(d) (i) agricultural uses – details. 2 at 1 mark [2]

(ii) source of raw material,
  transport – up to 2 marks for development,
  harbour,
  power,
  markets. 4 at 1 mark [4]

(iii) Decline in fish numbers,
  Getting rid of waste – pollution,
  Water shortage. 3 at 1 mark [3]
Question 5

(a) (i) A 0-4 years
B 4 millions + 4.5 million
C 3-4 millions 1 mark each [3]

(ii) do not work / depend upon working age groups 15-59 [2]

(iii) high birth rate,
difficult to reduce birth,
tradition,
religious pressures,
zeal for son – inheritance,
ignorance of large sectors of the population on need to reduce B.R/ low literacy rate /awareness,
difficulties of instituting family planning policies,
size of country / dispersed nature of population,
expense of introducing family planning policies,
lack of /unpopularity of abortion /sterilization,
pressure in rural areas – need children to work on farms,
large number of children to look after parents in old age,
high infant mortality – hence large families,
reduction in infant mortality – more surviving. 4 at 1 mark [4]

(iv) birth control / family planning fines
sterilization / abortion encouraged,
education / awareness,
incentives / government encouragement of smaller families. 4 at 1 mark [4]

(v) develop country -
more even distribution amongst the age groups,
less in the 0-15 years groups,
more in the 60 + year groups. 2 at 1 mark [2]

(b) (i) Kenya + 37 per 1000 population,
Germany – 1 per 1000. 2 at 1 mark [2]

(ii) Kenya: increase in dependency ratio, overpopulation
eater demand on resources,
food shortage,
great demand on capital,
more schools required,
unemployment in the future,
increased number of adults in the future – greater number of children born in future years,
under population.
Germany:
aging population,
increase in dependency ratio,
increase spending on older dependents,
stagnant / declining population,
labour shortage.
In each case [2 at 1 mark] [2]

(c) (i) greatest incidence 25-29 age group,
$66^0/0$ in 2/3 in 3 age groups 20-34,
main child bearing groups
fewest cases of HIV/AIDS – 40 years +[3 at 1 mark] [3]

(ii) Reduce life expectancy
Reduce people in young age groups,
Increase in infant mortality,
Decline in population growth rate. [3 at 1 mark] [3]
Question 6

6 (a) (i) rural to urban movement [1]
(ii) squatter camp [1]

(b) (i) 70% [1]
(ii) overcrowding
did not own the land / could be evicted
living in unhygienic conditions
no clean water supplied
no electricity [3]

(c) (i) pull factors:
employment opportunities,
higher wages,
variety of employment,
better medical facilities,
education,
entertainment + leisure,
housing.

push factors:
farms cannot support large numbers,
lack of other employment,
decreasing fertility / productivity,
drought,
lack of education,
diseases,
increasing debt. [6]

(d) (i) views (reserve 1)
reasons to support views (reserve 1) 4:4 [8]

(e) lack of money /funds,
corruption /misspending of funds,
high rate of in – migration,
cannot cope with the scale of the problem,
residents do not cooperate,
lack of good governance /leadership /resourcefulness. [4]
MINISTRY OF EDUCATION

Namibia Senior Secondary Certificate (NSSC)

GEOGRAPHY: ORDINARY LEVEL

PAPER 2
SPECIMEN PAPER

TIME: 1 hour 30 minutes

Additional materials:
   Answer paper
   Ruler

INSTRUCTIONS TO CANDIDATES
Write your name, Centre number and candidate number in the spaces provided on the answer paper/answer booklet.

Answer any all questions.

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INFORMATION FOR CANDIDATES
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Question 1

1. Study the map extract of Rusape (Zimbabwe) and answer the following questions. The scale of the map is 1: 50 000.

(a) (i) What is the height of the spot height a grid reference 978503? [1]

(ii) Measure the length of the wide, tarred road from the bench mark 1392.65 at grid reference 087454 to the southern edge of the map. Give your answer in metre. [1]

(iii) If the map was drawn to half the scale of the map extract, state the scale of the new map expressing it in two different ways. [2]

(b) Describe the physical features of the Rusape River. [5]

(c) (i) State four services provided by the settlement of Rusape [2]

(ii) Describe the road pattern in the centre of Rusape. [1]

(iii) Describe three advantages of the site and position of the Aerodrome to the south-east of Rusape. [3]

(d) Describe the land use in the south-east of the map in the area shown below (Fig. 1.). Do not comment on roads, tracks, buildings and huts. [5]

![Fig. 1](image-url)
Question 2

Two instruments kept at a school weather station are shown in Fig. 2 (Insert).

(a) In the space provided on Fig. 2, name the weather instruments X and Y. [2]

(b) Using the thermometers shown in Fig. 2 and, where necessary, Table 1, calculate

(i) the daily range temperature,

(ii) the relatively humidity. [2]
**RELATIVELY HUMIDITY**

Table 1 used with instrument Y

<table>
<thead>
<tr>
<th>Dry Bulb</th>
<th>Wet Bulb</th>
</tr>
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<tbody>
<tr>
<td>20 °C</td>
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<td>82 %</td>
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<tr>
<td>60 °C</td>
<td>95 %</td>
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</tbody>
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Question 3

3 Fig. 3 shows the birth and death rates for a country from 1900 to 2000. Using the information in Fig. 3, answer the following.

Fig. 3

(a) State the year with highest birth rate. [1]

(b) Describe two ways in which the death rate between 1900 and 1935 differed from that between 1960 and 2000. [2]

(c) In which one of the following years was the natural rate of population growth at its highest?


(d) State how life expectancy in 1900 most likely differed from that in 1990. [1]
Question 4

Study Fig. 4 which shows the world's largest cities in 1950 and 1990.

(a) Which continent had the greatest number of the world's largest cities in 1990? [1]

(b) Which of the world's cities shows the greatest increase in population between 1950 and 1990? [1]

(c) Which city had a population of 1 million in 1950 but approximately 7 million in 1990? [1]

(d) Which city in South America had the greatest population in 1950? [1]

(e) Which is the only city to show a decrease in population between 1950 and 1990. [1]
Question 5

5 Study Fig. 5 which shows the employment structure in a number of countries.

(a) Use the information given below to complete the graph and show the employment structure for Peru.

Primary industry 40%
Secondary industry 18%
Tertiary industry 42% [2]

(b) What is the percentage of people employed in the secondary industry in Kenya? [1]

(c) Which of the countries, shown in Fig. 5, has the highest percentage of its workers in secondary industry? [1]
Employment Structure

Fig. 5 for Question 5
Question 6

6. Fig. 6 gives details of Japan's trade between 1960 and 1995.

(a) Complete the pie graph to show the following exports:

- electrical goods 40%
- cars 35%
- telecommunications 20%
- others 5%

Use the key shown on Fig. 6

(b) What was the value of Japan's imports in 1995?

(c) In which year was the value of Japan's exports 190 billion US dollars?

(d) State any one year in which Japan had trade deficit.

Fig 6 for Question 6
Question 7

7. Study Fig. 7 which shows the distribution of industrial areas in Brussels, a capital city in Europe.

(a) Using evidence from Fig. 7 only, give one reason for the location of the older, traditional industries. [1]

(b) State which of the Science Parks, shown on Fig. 7 is nearest to the city centre. [1]

(c) Which of the Science Parks is largest in area? [1]

(d) Using information from Fig. 7 only, give four reasons for the location and development of the Science Parks in this capital city. [4]
8 Fig. 8 gives details of recordings taken at a weather station from 1 August to 14 August.

Using the information in Fig. 8

(a) State the diurnal (daily) range of temperature on 11 August, [1]

(b) describe how, during the period 1 August to 14 August, precipitation may be related to each of the following,

I wind direction [2]
II pressure, [2]
III daily range of temperature. [2]
Question 9

Study Fig. 9 to describe the major environmental changes which happened in the Ombusana District between 1975 and 1995.

Fig. 9
MINISTRY OF EDUCATION

Namibia Senior Secondary Certificate (NSSC)

GEOGRAPHY: ORDINARY LEVEL

PAPER 2
MARK SCHEME

Question 1

1. (a) (i) 1367 [1]

(ii) 6900 – 7000m [1]

(iii) 1:100 000
1 centimetre to 1 kilometre 2 at 1 mark [2]

(b) meander, rapids, waterfall, islands / braided flows to SW, variable width, right angle bends, gentle gradient to NE, steep (er) gradient to SW / through hills. 5 at 1 mark [5]

(c) (i) hospital post office, hotel, aerodrome nearby, railway station, service station (fuel) police station 4 at 1/2 mark [2]

(ii) grid iron / rectangular [1]

(iii) flat / level rear rusape away from built up area of Rusape, no hills nearby 3 at 1 mark [3]

(d) cultivation, orchard and plantation, railway, reservoir / dam, electricity / power line. 5 at 1 mark [5]
Question 2

2 (a) X - maximum and minimum thermometer/Six's thermometer
Y - wet and dry bulb thermometer/hydrometer

(b) (i) 5ºC (must state C)
(ii) 65% (must state %)

Question 3

3 (a) 1940

(b) 1900 to 1935 higher / 1960 to 2000 lower
1900 to 1935 variable / 1960 to 2000 constant

Comparison must be made 2 at 1

(c) 1950

(d) Lower in 1900 / higher in 1990

Question 4

4 (a) Asia
(b) Mexico City
(c) Bangkok
(d) Buenos Aires,
(e) London.
5. (a) Graph - two lines correct at 1 each. Must use correct shading for at least two sections.

(b) 11%

(c) USA
**Question 6**

6  (a) Must use correct key otherwise = 0

Electrical goods  144°
Cars             126°
Telecommunications 72°

2 correct sectors at 1 each  = 2

(b) 250 billion (US$)  [1]
(c) 1987  [1]
(d) 1970-1976 (Any year)  [1]

**Question 7**

7  (a) along canal,  = 1
(b) St lambrechts Woluwe,  = 1
(c) Evere Brussels  = 1
(d) near motorway/autoroute/major railway/entering road/named A - E roads
    near airport,
    labour from Brussels,
    near Universities for research,
    skilled labour from Universities,
    cheap(er) land on outskirts,
    market in Brussels,
    edge of city therefore space,  4 at 1  = 4

[7]
Question 8

8 (a) 12° C

(b) I occurs when wind from westerly direction ? NW, heaviest when winds from NW, little when winds are from south ? SE / E, one occasion when winds from E, 2 at 1 = 2

II precipitation begins when pressure falls, heaviest when press is lowest / low, precipitation decreases as pressure rises, precipitation on one day when pressure high, 2 at 1 = 2

III precipitation occurs when daily range is low, precipitation occurs when daily range is 6°C and below, no precipitation when daily range is high, no precipitation when daily range is 9°C and over, 2 at 1 = 2

[7]

Question 9

9 3 OF THE FOLLOWING:

the forested area decreased,
tree plantations increased,
more roads were built,
number of settlements increased,
population living in the area increased,
sizes of two settlements increased 3 at 1 mark [3]
MINISTRY OF EDUCATION

Namibia Senior Secondary Certificate (NSSC)

GEOGRAPHY: ORDINARY LEVEL

PAPER 3
SPECIMEN PAPER

TIME: 1 hour 45 minutes

INSTRUCTION TO CANDIDATES
Write your name, Centre number and candidate number in the space provided on the answer paper/answer booklet.
Answer all questions.
Write your answers on the separate answer paper provided.
If you use more than one sheet of paper, fasten the sheets together.

INFORMATION FOR CANDIDATES.
The number of marks is given in brackets [ ] at the end of each question or part question.
Question 1

1. A group of students plan to investigate the influence of tourism on their town. They decide to study noise, litter and traffic congestion in January (the high season) and July (the low season). Fig. 1 shows a map of the tourist town. The location of the 4 data collection sites is shown.

(a) (i) Why were 4 sites chosen? [1]

(ii) Why will the data be collected in January and July? [1]

(iii) A hypothesis is a statement which can be tested to see whether is true or not. Suggest a hypothesis based on noise, litter and traffic congestion to test the impact of tourism on this town. [3]

(b) Study Tables 1, 2 and 3 showing the scoring system and the results of the data collection.

(i) Complete the traffic scores of Table 3 for Site 1 and 2 in both high and low season. [4]

(ii) Using all the data, complete the rose diagrams for Site 3 for both January (Fig. 1) and July (Fig.2). [6]

(c) Describe in detail the differences between the January and July results for each site. [8]

(d) (i) With reference to the results, explain whether this data supports your hypothesis or not. [3]

(ii) Why might the methods used produce inaccurate results? [2]

(iii) Suggest two other types of surveys which would improve the investigation to test your hypothesis. [2]
Table 1  Scoring system for noise, litter and traffic congestion

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>very noisy</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>plenty of litter</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>very congested (number of vehicles in a 15 min. period)</td>
<td>5 (48+)</td>
<td>4 (36-47)</td>
<td>3 (24-35)</td>
<td>2 (12-23)</td>
<td>1 (0-11)</td>
</tr>
</tbody>
</table>

Table 2  Results of the Environmental Surveys for noise and litter

<table>
<thead>
<tr>
<th>Site</th>
<th>January noise</th>
<th>January litter</th>
<th>July noise</th>
<th>July litter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Site 2</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Site 3</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Site 4</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 3  Results of the Traffic Survey

<table>
<thead>
<tr>
<th>Site</th>
<th>Number of vehicles</th>
<th>January Score</th>
<th>January (high season)</th>
<th>July (low season)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1</td>
<td>36</td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Site 2</td>
<td>45</td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Site 3</td>
<td>52</td>
<td>5</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td>Site 4</td>
<td>23</td>
<td>2</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>
Map of tourist town (January)

Fig. 1 for Question 1
Map of tourist town (July)

Fig. 2 for Question 1
Question 2

2. Students investigated the changes in valley shape of a local river as distance from the source increased. Two sites were chosen 15 km apart. Site 1 was near the source and Site 2 was nearer the mouth of the river.

(a) (i) Describe the relief and the drainage features shown by the sketches at each of the two sites.  
(ii) State two disadvantages of using field sketches to record geographical information.
Question 2 (continued)…

Site 1 looking upstream

Site 2 looking upstream

Fig 3
(b) A clinometer is used to measure the valley slopes at the two sites. Study Fig. 4 which shows how to make a simple clinometer.

(i) Why is a weight needed on the end of the piece of string? [1]

(ii) Why is it important to the string ‘swings freely’? [1]

(iii) Explain how the string on the clinometer measures the angle of a slope. [2]

(c) Explain in detail how you would measure the angle of a slope in the field using a clinometer, tape measure and tow ranging poles. A diagram may help your explanation. [5]

(d) Study Table 4 which shows the slope data, and Fig. 4 showing the cross sections of the river valley.

(i) Complete Table 4 by measuring and recording the angle of slope at A. [1]

(ii) Complete Fig. 4 using the angle of slope information. [4]

(e) Study the tow cross sections (Fig. 5).

(i) Describe how the slopes are different. [4]

(ii) Explain why the shape of the upper river valley at Site 1 is different from the shape of the lower river valley at Site 2. [4]
# Table 4 for Question 2

Angle of Slope

<table>
<thead>
<tr>
<th>distance from</th>
<th>Site 1</th>
<th>Site 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>river bank</td>
<td>left bank</td>
<td>right bank</td>
</tr>
<tr>
<td>0-4 m</td>
<td>32°</td>
<td>10°</td>
</tr>
<tr>
<td>4 m-8 m</td>
<td>13°</td>
<td>10°</td>
</tr>
</tbody>
</table>

![Fig. 5 for question 2](image)
MINISTRY OF EDUCATION

Namibia Senior Secondary Certificate (NSSC)

GEOGRAPHY: ORDINARY LEVEL

PAPER 3
MARK SCHEME

Question 1

1. (a) (i) to check if only in one area; to cover all the town; 1@1 (1)

(ii) to compare different time/seasons of the year; when tourists are there and when they are not; 1@1

(iii) Similar wording to: ‘there will be (more/less) (traffic, noise and litter) (in January/high season than July/low season/amount of tourist) 3@1 (3)

(b) (i) Correct scores
Site 1 Jan = 4 July = 3
Site 2 Jan = 4 July =1 4@1 (4)

(ii) Correct plotting onto the rose diagrams for Site e
Jan. L = 5 N = 5 T = 5
July L = 3 N = T = 3 6@1 (6)

(c) Each site commented on differences between Jan and July
If no data then Max. 2 marks 2 x (4@1) reserve one mark for each site (8)

(d) (i) three reasons using data with reference to traffic, noise and litter – refer to their own hypothesis 3@1 (3)

(ii) Scales inaccurate; student inaccuracy; options differ; 2@1 or credit dev (3)

(iii) Pedestrian count; questionnaire; Interviews with shopkeepers/hoteliers; air pollution; location of cafes/restaurants 2@1 (2)

Total marks: 30
Question 2

2. (a) (i) Site
Relief = Upland/hilly/mountainous; interlocking spurs;
v shaped/steep sided valley
Drainage Features = narrow/small; windy/bendy river;
small surface streams; steep gradient of river channel
Site 2
Relief = flatter/less steep
Drainage Features = slip off slope; river cliff;
Meander; deposition; more gentle gradient of river channel

(ii) not accurate; no scale; depends on student’s skill etc. 2@1 (2)

(b) (i) to hold the string vertical; not blown in the wind 1@1 (1)
(ii) to give an accurate angle 1@1 (1)
(iii) The clinometer is tilted; the string shows the angle on the card 1@1

(c) measures set distance; put ranging poles at (either)
end; stand at ranging pole with clinometer; point
clinometer at an equal height; can repeat in other
direction to average result
credit additional comments 5@1 (2)

(d) (i) Angle A = 39° - 41° 5@1 (1)
(ii) Correct angles (10° and 4°)
Correct distance (35 – 38 mm each line) 4@1 (4)

(e) (i) Any 4 descriptive comparisons of slope
(where a bank has 2 slopes) 4@1 (4)
(ii) Explanation for slope changes; more/less available
energy; vertically erosion; lateral erosion; gradient of
long profile; slope processes etc 4@1 Max 3 on
upland or lowland (4)

Total marks: 30