Centre Number	Candidate Number	Candidate Name

NAMIBIA SENIOR SECONDARY CERTIFICATE

GEOGRAPHY ORDINARY LEVEL 4332/3

PAPER 3 2 hours

Marks 60 **2018**

Additional Materials: Non-programmable calculator
Protractor
Ruler

INSTRUCTIONS AND INFORMATION TO CANDIDATES

- Candidates answer on the Question Paper in the spaces provided.
- Write your Centre Number, Candidate Number and Name in the spaces at the top of this page.
- Write in dark blue or black pen.
- You may use a soft pencil for any rough work, diagrams or graphs.
- Do not use correction fluid.
- Do not write in the margin *For Examiner's Use.*

- Answer **all** the questions.

- All working must be clearly shown.
- Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

- The number of marks is given in brackets [ ] at the end of each question or part question.
- You may use a non-programmable calculator.

For Examiner's Use		
1		
2		
3		
Total		

Marker		
Checker		

This document consists of **12** printed pages.

Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

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1 A group of Geography learners from a secondary school in Swakopmund plan to investigate the influence of tourism on their town. They decide to study noise, litter and water pollution in December and May.

The following hypothesis was tested.

There will be more noise, litter and water pollution during December than in May.

(a) (i) Why did they choose December and May for the investigation?

..... [1]

(ii) Define the term *hypothesis.*

..... [1]

(iii) Suggest **one** reason why three sites are chosen.

.....

..... [2]

(b) Study Table 1, which shows the scoring system used for the three sites.

Study Tables 2 to 4, which show the results of the data collected of the three sites.

Table 1

Scoring system for noise, litter and water						
Very quiet	1	2	3	4	5	Very noisy
Very clean	1	2	3	4	5	Very dirty
Low water pollution	1	2	3	4	5	High water pollution

Table 2

Site 1	**May**	**December**
Noise	2	4
Litter	3	
Water	2	3

Table 3

Site 2	**May**	**December**
Noise	1	2
Litter	2	4
Water	1	3

Table 4

Site 3	**May**	**December**
Noise	1	1
Litter	1	3
Water	1	2

Fig. 1 shows the data in graphical format.

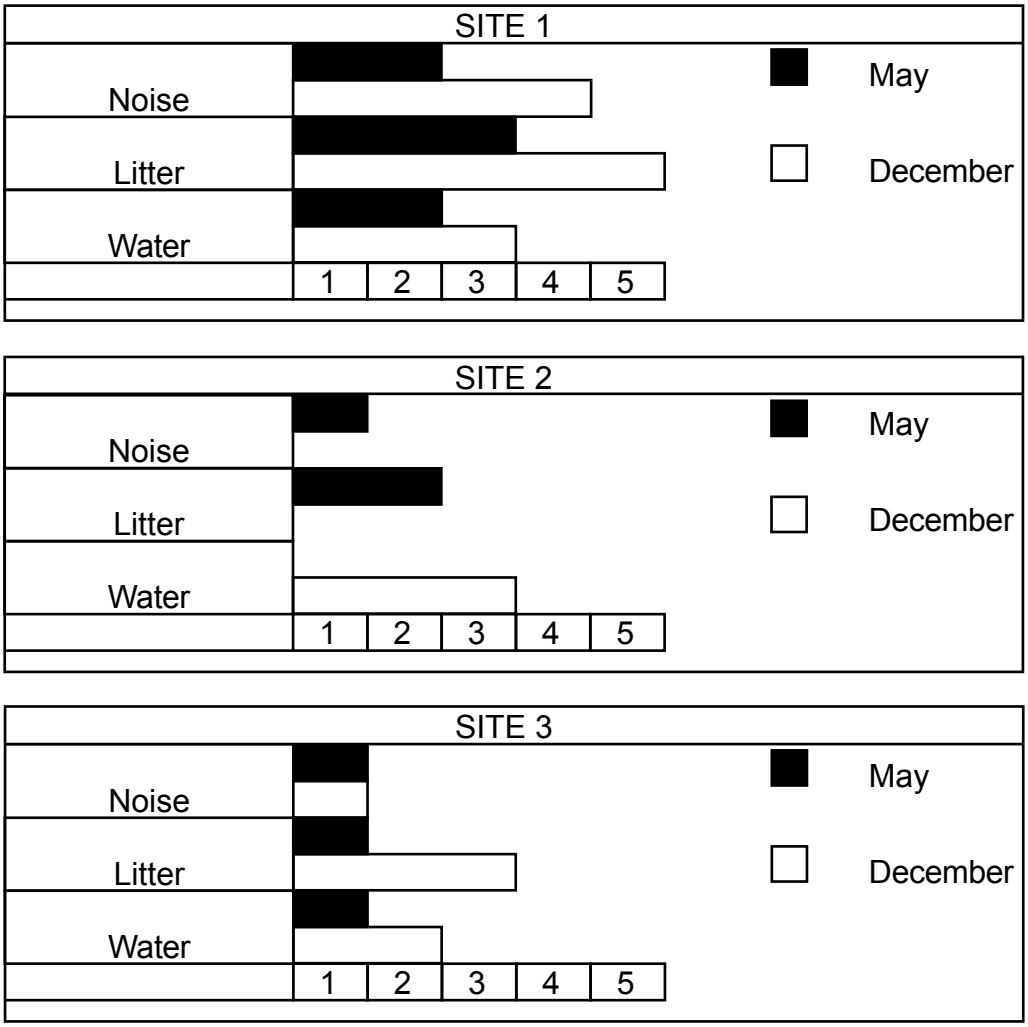


Fig. 1

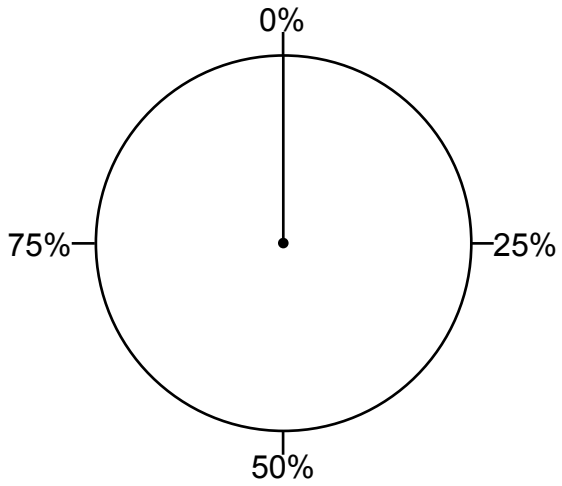
(i) During December the litter at Site 1 was very dirty.

Complete Table 2 by using data from the scoring system in Fig. 1. [1]

(ii) Complete Site 2, Fig. 1 by using the data in Table 3. [4]

(iii) Use the data from Table 2 and complete the pie chart for December.

December



[4]

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(iv) Name **three** different data collection methods that the learners could have used to obtain the data shown in the graphs.

1 .....

.....

2 .....

.....

3 .....

..... [3]

(v) Explain why the data collection methods used by the learners may lead to inaccurate data.

.....

..... [2]

(c) (i) Suggest which type of pollution shown to be the major environmental polluter.

Explain your answer.

Pollution .....

Explanation .....

..... [2]

(ii) Describe the pattern shown between May and December results.

Support your answer with data.

.....

.....

.....

.....

.....

.....

.....

..... [4]

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(d) (i) With reference to the data, explain whether the hypothesis is supported.

.....

.....

.....

.....

.....

..... [3]

(ii) During the investigation the learners might experience a number of problems.

Suggest **three**.

1 .....

.....

2 .....

.....

3 .....

..... [3]

[30]

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2 A group of Geography learners was given the task of conducting a survey of weather in a wet and a dry season. Recordings will be taken daily at 07:00 hours over a period of seven days at the beginning of each of the two seasons.

(a) (i) Two features of the weather for which recordings will be taken are the maximum temperature and the minimum temperature.

State **two** other features of the weather which could be recorded with the use of instruments placed in a Stevenson screen.

Weather feature 1 .....

Weather feature 2 ..... [2]

(ii) For each of the two features of the weather you have stated in **(a) (i)**, name an instrument which could be used to measure it.

1 .....

2 ..... [2]

(iii) State why each instrument is placed in the Stevenson screen and describe how its measurements will be taken.

Instrument 1

Why .....

.....

How .....

.....

Instrument 2

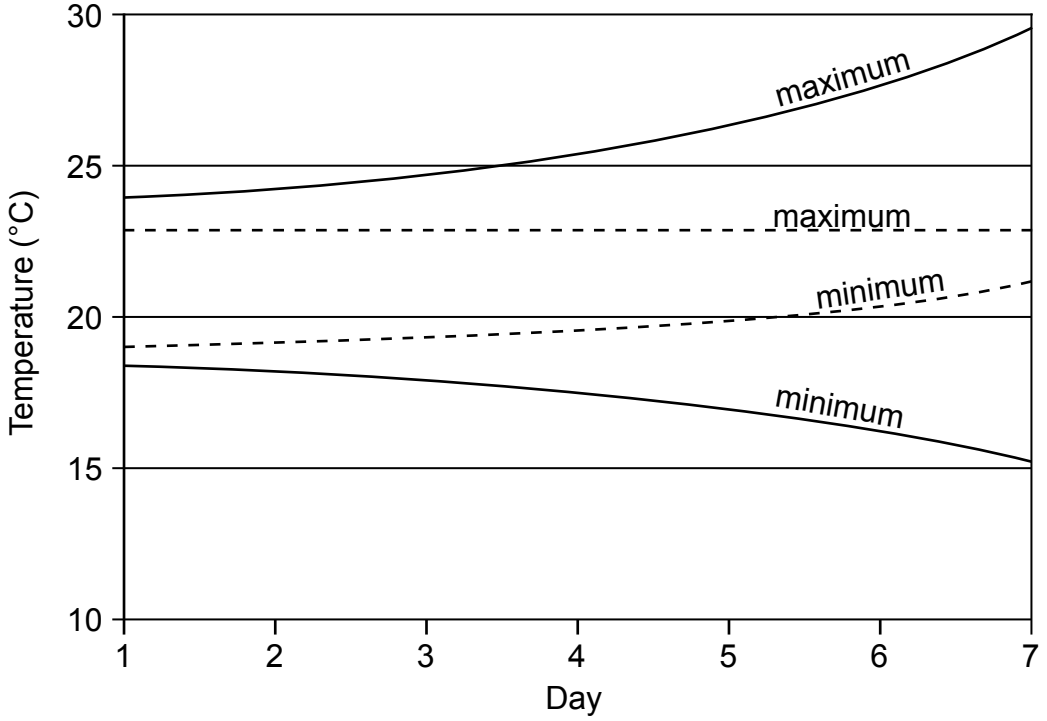
Why .....

.....

How .....

..... [4]

(b) Fig. 2 shows the maximum and minimum temperatures which were recorded on each of the seven days during the wet season and the dry season.



Key

——— Temperatures in dry season

- - - - - - - Temperatures in wet season

Fig. 2

With reference to temperatures, the aim of the study was to consider the following hypotheses.

Hypothesis 1

The minimum and maximum temperatures are higher on each of the seven days in the dry season than in the wet season.

Hypothesis 2

The range of temperature will be greater in the dry season.

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For each of the two hypotheses, state whether the details are proven or unproven. Using the information in Fig. 2, explain how you have arrived at your answer.

Hypothesis 1 .....

.....

.....

.....

.....

Hypothesis 2 .....

.....

.....

.....

..... [6]

[14]

For Examiner's Use

3 A group of Geography learners collected weather data on 14 consecutive days in January at their school in the southern hemisphere.

One aim was to investigate the link between rainfall and cloud cover to test the following hypothesis.

The greater the cloud cover the higher the rainfall.

(a) The students used a rain gauge to measure the rainfall.

State the ideal location for a rain gauge. Give **two** reasons for your answer.

Location .....

Reasons

1 .....

.....

2 .....

..... [3]

(b) The results of the investigation are shown in Table 5.

Table 5

WEATHER MEASUREMENTS 1 - 14 January			
Date January	**Rain** (mm)	**Cloud cover** (oktas)	**Max. Temp** (°C)
1st	0	0	22
2nd	2	6	17
3rd	0	1	15
4th	0	5	13
5th	0	2	15
6th	5	8	16
7th	7	6	18
8th	0	4	18
9th	2	6	16
10th	4	8	20
11th	3	8	18
12th	0	2	15
13th	0	0	18
14th	0	4	20

8 oktas = total cloud cover

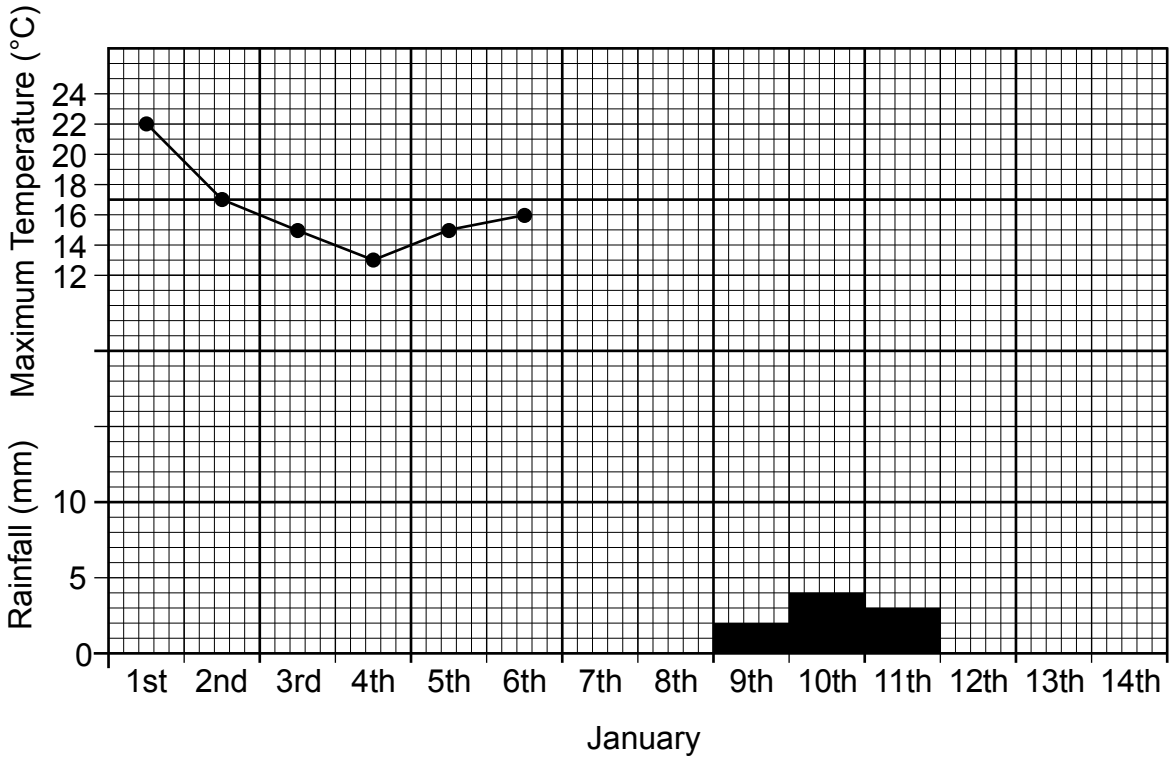

Fig. 3

Accurately complete the bar graph on Fig. 3 to show the rainfall results. [2]

(c) A cloud cover recorder was used following the instructions shown below Fig. 4.

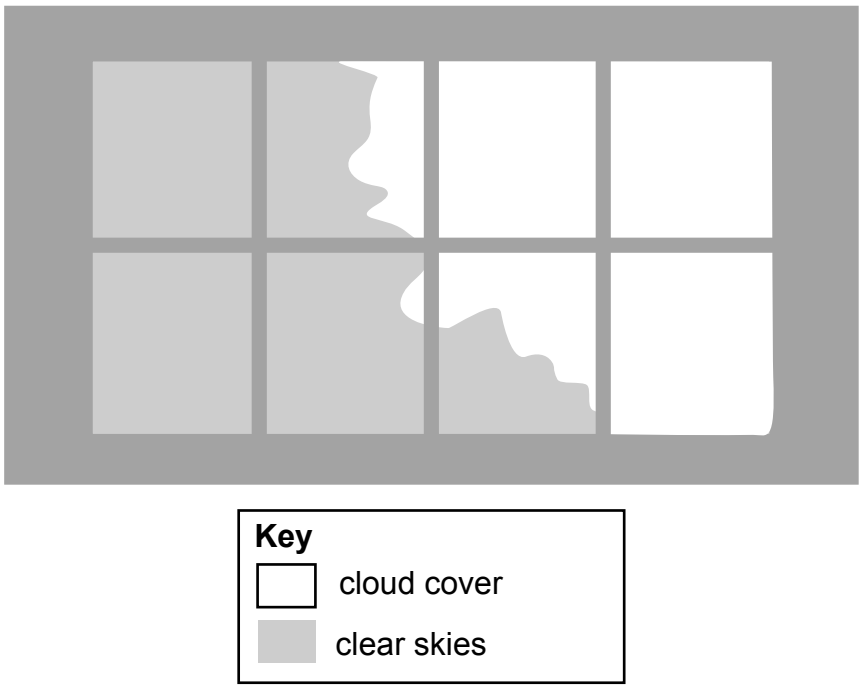

Fig. 4

Instructions:

Hold the frame close to the eye and look vertically up to the sky. Count the number of sections fully covered with cloud within the frame. Record this number as oktas (eighths). Repeat the measurement at the same time each day.

(i) Why must the observer look vertically up in the sky?

.....

..... [1]

(ii) Why must the recording be taken at the same time each day?

.....

..... [1]

(d) (i) Using data from Table 5 and Fig. 3, describe the relationship between cloud cover and rainfall.

.....

.....

.....

.....

.....

..... [4]

[Turn over

(ii) Write a brief conclusion to the investigation. You should refer to the original aim and hypothesis.

.....

.....

.....

..... [2]

(e) Additional weather observations were measured and recorded in Table 5.

Complete the line graph for maximum temperature on Fig. 3. [3]

[16]