

# education

Department: Education North West Provincial Government REPUBLIC OF SOUTH AFRICA

# **PROVINCIAL ASSESSMENT**

**GRADE 10** 



MARKS: 50

TIME: 1 hour

This question paper consists of 7 pages including two ANNEXURES.

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Please turn over

#### Grade

# **INSTRUCTIONS AND INFORMATION**

Read the following instructions carefully before answering the questions.

- 1. This question paper consists of FOUR questions. Answer ALL the questions.
- 2. Use the ANNEXURES in the ADDENDUM to answer the following questions:

ANNEXURE A for QUESTION 2.3 ANNEXURE B for QUESTION 3.2

Remove the pages from the question paper and add it to your answer script.

- 3. Number the answers correctly according to the numbering system used in this question paper.
- 4. Start EACH question on a NEW page.
- 5. You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise.
- 6. Show ALL calculations clearly.
- 7. Round off ALL final answers appropriately according to the given context, unless stated otherwise.
- 8. Indicate units of measurement, where applicable.
- 9. Diagrams are NOT necessarily drawn to scale, unless stated otherwise.
- 10. Write neatly and legibly.

# **QUESTION 1**

Susan went to the local supermarket and bought a few items. She received the following till slip from the dealer.

Market street 54, Licl	ntenburg
Sugar 2 kg	R54,00
Coffee 750 g	R165,95
White bread	R17,95
Chips 150g Salt & vinegar	R15,95
Chips 150g Chutney	R15,95
TOTAL	R269,80
VAT (included)	R35,19
Cash	R300,00
Change	R40,20

Use the above document to answer the questions that follow.

1.5	Write the acronym VAT in full.	(2) [ <b>10</b> ]
1.4	Write, in words, the TOTAL amount Susan spent.	(2)
1.3	Susan received a 20 cent coin as part of the change. The coin falls on the ground. What is the probability, as a fraction, that it lands on tails?	(2)
1.2	Calculate the price of 1 kg of sugar.	(2)
1.1	Write down the name of the supermarket where Susan bought the items.	(2)

#### **QUESTION 2**

Susan bought a new cell phone and she wanted to determine the cost of the calls. She found the following cell rate from a service provider 2 cents per second, including VAT							
	owing can rate		ice provider.	2 cents per	second, mer	uullig VAI.	
TABLE 1: C	ALL RATE F	ROM A SE	<b>RVICE PR</b>	OVIDER.			
Seconds	0	10	35	Α	60		
Cost in cents	B	20	С	80	120		
	Ŀ	·					
Use the inform	nation and the	table above	to answer th	e questions	that follow.		
2.1 Write down the dependent variable shown in the table above. (2)						(2)	
2.2 Calculate the value of <b>A</b> , <b>B</b> and <b>C</b> . (5)						(5)	

- 2.3 Use ANNEXURE A to draw a line graph to show the cost per second for phone calls. (4)
- 2.4 Johnny, Susan's brother, claims that a call of 150 seconds will cost 265 cents, VAT exclusive. Verify, with calculations, if Johnny's statement is correct. (5)
   [16]

### **QUESTION 3**

Susan wants to investigate the shoe sizes of the learners in her school. She decided to collect the shoe sizes of 20 of the girls in her grade. The data (shoe sizes) collected is as follows:

TABLE 2: SHOE SIZES OF 20 GIRLS IN A GRADE									
6	6	7	8	4	4	7	5	6	5
3	7	4	4	5	4	3	6	5	6

Use the information given above to answer the questions that follow.

	valid.	(2) [ <b>10</b> ]
3.4	Susan's friend Ann, told her that the investigation is bias or not a true reflection of a real life situation. Give a motivation why her friend's claim is	
3.3	Calculate the mean of the data set.	(3)
3.2	Complete the frequency table in the answer sheet (ANNEXURE B) provided, using the data given in Table 2.	(3)
3.1	Is the data given discrete or continuous?	(2)

#### **QUESTION 4**

4.1 Susan's family is planning to go on holiday and had to plan their finances accordingly. They drew up the following budget:

#### **TABLE 3: SUSAN'S FAMILY BUDGET**

INCOME	Rand	EXPENSES	Rand
Dad's salary	15 000	Rent	5 000
Mom's salary	12 000	Groceries	4 300
		Water and electricity	2 450
		Fuel	1 550
		School fees	2 850
		Insurance	950
		Savings	2 000
Total income		Total expanses	19 100

Use the information above to answer the questions that follow.

4.1.1 Susan wants to draw a graph to show how the different expenses contribute to the total expenses. She needs to determine the percentage of each expense in terms of the total expenses.

Which graph is suitable to represent the information above? (2)

- 4.1.2 Susan's dad will receive a 10% increase in his salary. Calculate the new surplus (after the increase) that the family will have. (4)
- 4.1.3 Susan claims that the savings are more than 10% of the expenses.Show by means of a calculation if her claim is valid or not. (3)
- 4.2 Susan's mother keeps record of the price of a 2 litre of milk over seven weeks. The prices are as follows:
  3 095 cent 2 980 cent 3 115 cent 3 090 cent

Use the information above to answer the questions that follow.

3 240 cent

4.2.2	Round the answer in 4.2.1 to the nearest Rand.	(2) [ <b>14</b> ]
4.2.1	Calculate the median, in Rand, for the above data.	(3)

3 245 cent

**TOTAL:** 50

3 255 cent

6 Grade 10

NAME: \_\_\_\_\_ GRADE: 10/\_\_\_\_

## **ANNEXURE A**

# **QUESTION 2.3**



Cost per second for making a call

NAME: \_\_\_\_\_ GRADE: 10/\_\_\_\_

#### ANNEXURE B

# **QUESTION 3.2**

Shoe size	Tally	Frequency
3		
4		
5		
6		
7		
8		