



education

Department:
Education
PROVINCE OF KWAZULU-NATAL

**NATIONAL
SENIOR CERTIFICATE**

GRADE 11

MATHEMATICAL LITERACY P1

COMMON TEST

JUNE 2019

MARKS: 75

TIME: 1½ hours

This question paper consists of 6 pages and an addendum with 1 annexure.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of THREE questions. Answer ALL the questions.
2. Use ANNEXURE A in the ADDENDUM to answer Question 2.1.
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. Units of measurement must be indicated where applicable.
9. Maps and diagrams are not necessarily drawn to scale, unless stated otherwise.
10. Write neatly and legibly.

QUESTION 1

Tom surprises his wife on her birthday by buying her a 55 inch television set. The repayment period is 36 months and the monthly instalment is R570,00. Refer to the advertisement below.

SAMSUNG
55" UHD Curved
TV (55NU7300)
 *Item No 783461

12999

SAVE 4300

139cm (55")

CURVED SMART

X2 HDMI

X 2 USB

2 YEAR WARRANTY

**GET IT NOW!
 ON YOUR STORE CARD
 R570**

Samsung Soundbar N450

(Source: Game stores catalogue Price valid from 20-24 March 2019)

Study the advertisement above and answer the questions that follow.

- 1.1 Write down the item number of the television set. (2)
- 1.2 Determine the repayment period in years. (2)
- 1.3 Convert the size of the television set from centimetres to metres. (2)
- 1.4 How many years warranty will Tom get after buying the television set? (2)
- 1.5 Write down the number of days for which the price of the television is valid. (2)

- 1.6 Calculate the original price of the SAMSUNG television. (2)
- 1.7 Calculate (rounded off to ONE decimal place) the amount saved as a percentage of the SAMSUNG 55' TV's original price. (4)
- 1.8 Calculate the total amount to be paid by Tom at the end of 36 months. (2)
- 1.9 If Tom decides to buy the television cash, determine how much he will save instead of buying the television on hire purchase. (2)
- 1.10 Tom takes a loan of R300 000 from his bank. Interest will be charged at $3\frac{1}{2}\%$ per annum, simple interest.
- (a) Define the term interest rate. (2)
- (b) Calculate the amount of interest for two years. (4)
- (26)**

QUESTION 2

- 2.1 John and his family travelled with his new car from Port Elizabeth to Port Shepstone to visit his uncle during the September holidays. Refer to ANNEXURE A in the addendum that shows the road map of South Africa.

Use ANNEXURE A to answer the questions that follow.

- 2.1.1 Give the name of the national road that John and his family will use from Port Elizabeth to Port Shepstone. (2)
- 2.1.2 Which ocean is on the west of Port Elizabeth? (2)
- 2.1.3 How many national roads connect to Bloemfontein? (2)
- 2.1.4 Name TWO towns which they will pass when travelling from Port Elizabeth to Port Shepstone. (2)
- 2.1.5 State the general direction of Lesotho from Western Cape. (2)

2.1.6 Write down ONE advantage of using a bar scale. (2)

2.1.7 The distance that John travelled to his uncle's place is measured as approximately 7cm on the map. Use the bar scale to determine the estimated distance in kilometres that John travelled. (4)

2.1.8 John drives at an average speed of 110km/h. Use the estimated distance calculated in 2.1.7 above to determine the time (rounded off to the nearest hour) it takes to travel from Port Elizabeth to Port Shepstone.

You may use the following formula: $\text{Time} = \frac{\text{Distance}}{\text{speed}}$ (3)

2.2 John's car has a tank that can hold 66 litres of petrol. His engine has a fuel consumption rate of 14,8 litres per 100 kilometres travelled.

2.2.1 Determine the total distance he can travel on a full tank of petrol. (3)

2.2.2 Calculate the cost for a full tank of petrol if the price of petrol is R16,23 per litre. (2)

2.2.3 Calculate how much money John will spend on fuel for a return trip from Port Elizabeth to Port Shepstone. (6)

2.2.4 The average daytime temperature for Port Elizabeth in September is 18°C.

Convert the average temperature to °F.

You may use the following formula: $^{\circ}\text{C} = (^{\circ}\text{F} - 32) \div 1,8$ (3)
[33]

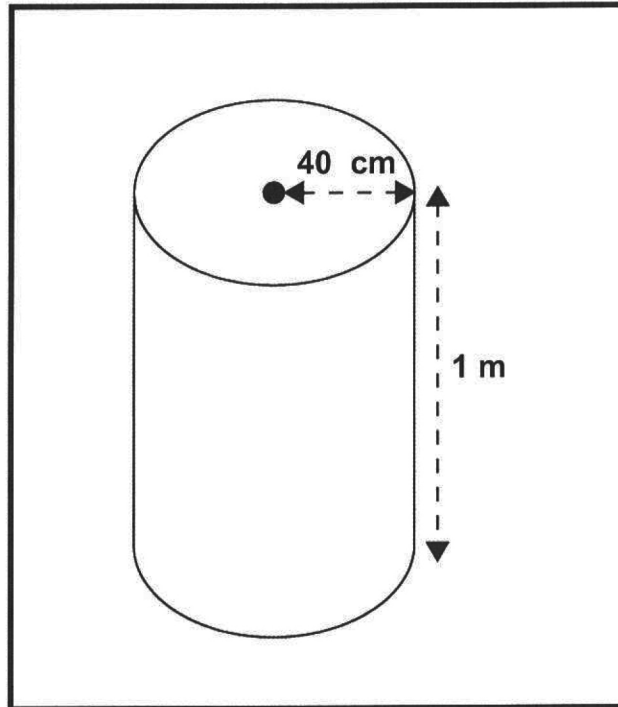
QUESTION 3

Sam owns a Construction Company. He has been hired to build a monument that is to be placed on Victoria Embankment. The monument is to be made out of concrete. The concrete mixture is made up of cement powder, sand and water. There is one-part sand to every three parts cement.

3.1 Write down the ratio of sand : cement used the in the concrete mixture. (2)

3.2 500 ml of water are required for every 400 g of dry mixture. Sam has 60 kg of dry mixture. How many litres of water will be needed? (5)

- 3.3 Sam mixes the ingredients in a barrel with a height of 1 m and a radius of 40 cm as shown in the diagram below.



- 3.3.1 Define the term capacity. (2)
- 3.3.2 Determine the diameter of the barrel in metres. (2)
- 3.3.3 Calculate the volume of the barrel (rounded off to the nearest litre)

NOTE: 1 litre = 1000cm³

You may use the formula:

Volume of the barrel = $\pi \times r^2 \times h$, where $\pi = 3,142$. (5)

[9]

TOTAL MARKS: 75



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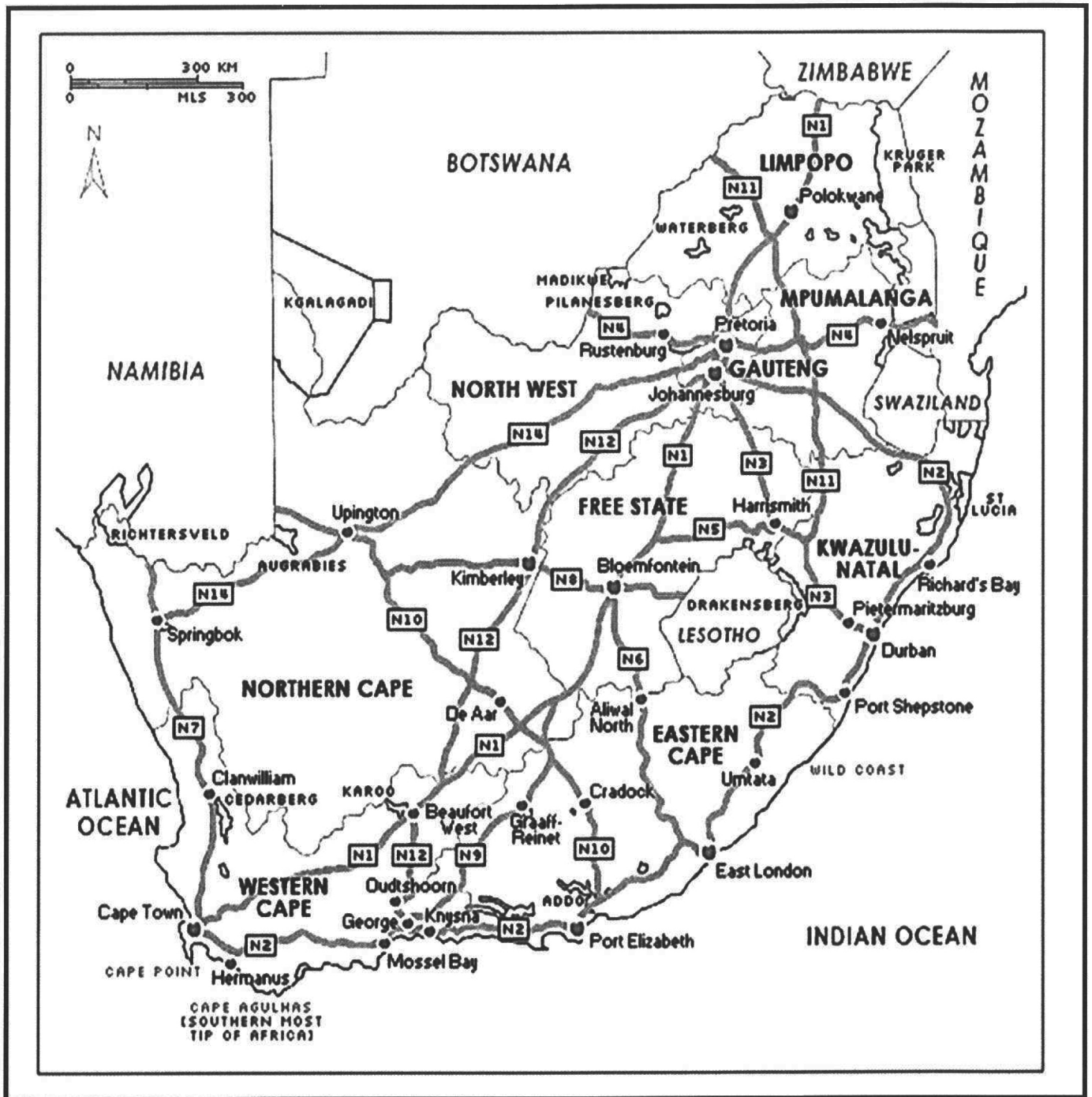
ADDENDUM

JUNE 2019

NB: This addendum consists of 2 pages with 1 annexure.

ANNEXURE A

QUESTION 2.1



Source: www.sa-venue.com