Exam Practice

Adapted from DBE NSC Nov 2019 – Paper 1 – Q 2.1 – Annexure A

EXTRACT FROM MR DANIELS' MONTHLY MUNICIPAL STATEMENT

Mr KJ Daniels 14 Sirkoon Street Kruger Park 2738	Date: Statement for:	2019/03/12 March 2019

STAND SIZE	NUMBER OF DWELLINGS	DATE OF VALUATION	PORTION	MUNICIPAL VALUATION	REGION
1 215 m²	1	2018/07/01	R1	Market value R1 258 000	WARD C

ACCOUNT NUMBER: 345 678 8900 60

		SUBTOTAL (R)	TOTAL AMOUNT (R)
Water and sewer			
Reading period	2019/01/16 to 2019/02/12		
Meter reading Reading in litres. 1 000 litres = 1 kilolitre	Start: 795 000 End: 812 000		
Water usage	A kℓ (kilolitres)		
Daily average consumption	B kℓ		
Charges for ... kℓ are based on a sliding scale for a 28-day period			
Total water charge (excluding VAT)		D	
Water demand management levy		22,64	
Monthly sewer charge based on stand size (excluding VAT)		C	
VAT: 15%		E	

PAYMENT DUE	XXX
DUE DATE	2019/03/27

STEPPED RESIDENTIAL WATER TARIFF	
KILOLITRES PER CONNECTION PER MONTH	2018/19 TARIFF (R/kℓ) EXCLUDING
from 0 to 6	8,28
above 6 to 10	8,79
above 10 to 15	15,00
above 15 to 20	21,83

SEWER MONTHLY CHARGE BASED ON STAND SIZE	
STAND SIZE (m²)	2018/19 TOTAL CHARGE (IN RAND) EXCLUDING 15% VAT
Up to and including 300 m²	194,67
Larger than 300 m² to 1 000 m²	378,95
Larger than 1 000 m² to 2 000 m²	573,29
Larger than 2 000 m²	836,02

[Adapted from www.joburawater.co.za and www.jotariffs.co.za]

Use the information from the Municipal Statement provided to answer the questions:

1. Write down the market value in words.

2. Calculate **A**, the water usage.

3. Calculate **B**, the daily average consumption, based on a sliding scale for a 28-day period. Round off your answer to 2 decimal places.

4. Determine the value of **C**, the monthly sewer charge based on stand size (excluding VAT).

5. Use the stepped residential water tariff table to calculate the value of **D**, the total water charge (excl. VAT).

6. Calculate **E**, the total VAT on the total water charge and the monthly sewer charge.

Exam Practice Answers

1. One million, two hundred and fifty-eight thousand

2. Water usage = 812 000 – 795 000 = 17 000 litres

   A = 17 000 ℓ ÷ 1 000 = 17 kℓ

3. Daily average water consumption (**B**) = 17 kℓ ÷ 28 days = 0,61 kℓ/day

4. Monthly sewer charge excluding VAT (**C**) = R573,29

Kilolitres per connection per month	2018/19 Tariff (R/kl) (excl. 15% VAT)	❶ Range of each step	❷ Cumulative / running totals	❸ Cost per step
from 0 to 6	8,28	6 – 0 = 6 kℓ	6 kℓ	6 kℓ × R8,28 = R49,68
above 6 to 10	8,79	10 – 6 = 4 kℓ	6 + 4 = 10 kℓ	4 kℓ × R8,79 = R35,16
above 10 to 15	15,00	15 – 10 = 5 kℓ	10 + 5 = 15 kℓ	5 kℓ × R15,00 = R75,00
above 15 to 20	21,83	20 – 15 = 5 kℓ	15 + 2 = 17 kℓ	2 kℓ × R21,83 = R43,66

5. Total water charge (**D**) = R49,68 + R35,16 + R75,00 + R43,66 = R203,50

6. Total water charge (D) + Monthly sewer charge (C) = R203,50 + R573,29 = R776,79

   ∴ Total VAT (**E**) = $\frac{15}{100}$ × R776,79 = R116,52