



education

Department:
Education
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINES

**NATIONAL CERTIFICATE (VOCATIONAL)
NQF LEVEL 2**

SUPPLEMENTARY EXAMINATION 2008

**MATHEMATICAL LITERACY
(First Paper)**

This marking guidelines consists of 7 pages.



SECTION A

QUESTION 1

- 1.1 1.1.1 3 1 mark correct answer (1)
- 1.1.2 $1\frac{2}{3}$ 1 mark correct answer (1)
- 1.1.3 11 1 mark correct answer (1)
- 1.1.4 15 1 mark correct answer (1)
- 1.2 $2 \quad 1 \quad -\frac{1}{5} \quad -\frac{1}{2}$ 1 mark correct answer (2)
- 1.3 8:25 pm 1 mark correct answer (2)
- 1.4 1,75 km
 $1,75 \text{ km} \times 1\,000 \text{ m/km}$
 $= 1\,750 \text{ m}$ 2 marks correct answer
 -1 mark no units (2)
- 1.5 $\frac{28}{45} \times 100$
 $= 62,2\%$ 2 marks correct answer
 -1 mark no units (2)
- 1.6 $1 : 5$ OR $1 : 5$
 $\Rightarrow 2,5 : 12,5$ $2,5 : \text{water ?}$
 $\Rightarrow \text{Water} = 5 \times 2,5$
 $\therefore 12,5 \ell \text{ of water}$ 2 marks correct solution
 -1 mark no units (2)
- 1.7 R1 240 – (5% of R1 240)
 $= \text{R}1\,240 - \text{R}62$
 $= \text{R}1\,178$ 1 mark method
 1 mark correct values
 1 mark percentage (3)
- 1.8 Cost of chicken:
 $\text{R}19,56 / \text{kg}$
 $= 1,8 \text{ kg} \times \text{R}19,56 / \text{kg}$
 $= \text{R}35,21 \approx \text{R}35,20$ 2 marks correct solution
 -1 mark no units (2)

[19]

QUESTION 2

2.1	2.1.1	$650 \div 10$ = R65 per recruit	2 marks correct answer	(2)
	2.1.2	Income = R65 \times number of recruits	2 marks correct answer	(2)
	2.1.3	Income = R65 \times 63 = R4 095	2 marks correct answer -1 mark no units	(2)
	2.1.4	Income = R65 \times number of recruits R2 795 = R65 \times number of recruits Number of recruits = R2 795 \div R65 = 43 recruits	1 mark method 1 mark correct values 1 mark correct answer	(3) [9]

QUESTION 3

3.1	3.1.1	07 May 2007	1 mark correct date	(1)
	3.1.2	A Notes : R300,00 B Postal/Money order : R60,00 C Cheques : R200,00	1 mark correct answer 1 mark correct answer 2 marks correct answer -1 mark no units	(1) (1) (2)
	3.1.3	James Electric : R50	1 mark correct answer	(1)
	3.1.4	Total deposited: =R366,53 + R200,00 =R566,53	1 mark method 1 mark correct values 1 mark correct answer	(3)
3.2	3.2.1	Balance on 8 th May 2007: =R10 000 + R366,53 =R10 366,53	1 mark method 1 mark correct values 1 mark correct answer	(3)
	3.2.2	Balance on 20 th May 2007: = R10 366,53 + R200,00 = R10 566,53	1 mark method 1 mark correct values 1 mark correct answer	(3) [15]



QUESTION 4

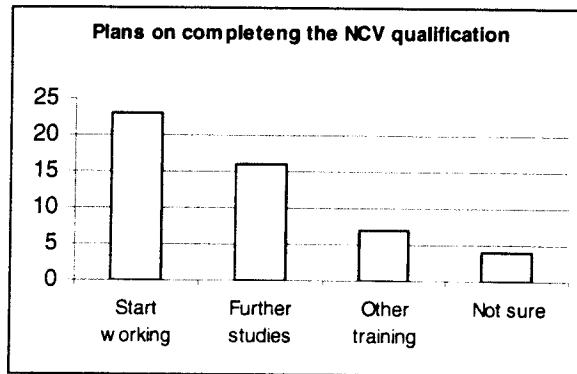
	4.1.1	A Port Elizabeth to Gaborone: 1 299 km B Durban to Cape town: 1753 km	1 mark correct answer 1 mark correct answer	(1) (1)
	4.1.2	Durban to Bloemfontein : 634 km Bloemfontein to Cape Town : 1004 km Total distance : 634 km + 1004 km = 1 638 km	1 mark correct route 1 mark correct values 1 mark correct answer -1 mark no units	(3)
	4.1.3	"-" symbol refer to distance between the same town/city (i.e. 0 km)	2 marks appropriate explanation	(2)
4.2	4.2.1	$8 \text{ cm} - 5 \text{ cm} = 3 \text{ cm}$	1 mark correct values 1 mark correct solution -1 mark no units	(2)
	4.2.2	Area of ABCD : $= 5 \text{ cm} \times 8 \text{ cm}$ $= 40 \text{ cm}^2$	1 mark method 1 mark correct answer -1 mark no units	(2)
	4.2.3	Area of ΔADE : $= 0,5 (8 \text{ cm} \times 3 \text{ cm})$ $= 12 \text{ cm}^2$	1 mark correct formula 1 mark correct values 1 mark correct solution -1 mark no units	(3)
	4.2.4	Total area : Area of ABCD + Area of ΔADE $= 40 \text{ cm}^2 + 12 \text{ cm}^2$ $= 52 \text{ cm}^2$	1 mark valid method 2 mark correct values 1 mark correct solution -1 mark no units	(4)
				[19]

QUESTION 5

5.1	5.1.1	A 23 B 16 C 7 D 4	1 mark correct answer 1 mark correct answer 1 mark correct answer 1 mark correct answer	(4)
	5.1.2	$23+16+7+4 = 50$	1 mark correct values 1 mark correct solution	(2)
	5.1.3	$\frac{23}{50} = 46\%$	1 mark correct values 1 mark method 1 mark correct answer	(3)



5.1.4



1 mark labelling the axes
1 marks scale
3 marks for correct bars (-1 per incorrect bar)

(5)

5.2.1

% enrolment:

Office Administration = $\frac{64}{203} = 31,53\%$

1 mark correct values

1 mark correct answer

Marketing = $\frac{112}{203} = 55,17\%$

1 mark correct values

1 mark correct answer

Electrical Infrastructure Construction

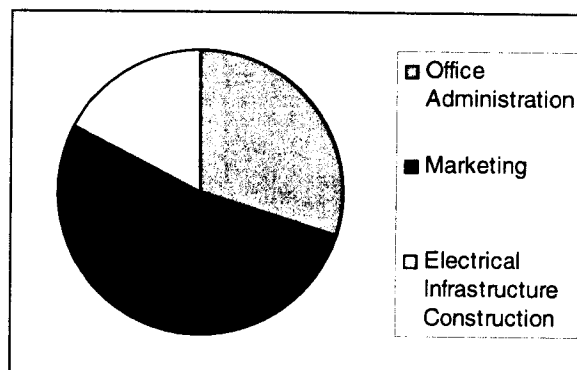
= $\frac{37}{203} = 18,23\%$

1 mark correct values

1 mark correct answer

(6)

5.2.2



1 mark labelling
4 marks for sectors corresponding to values in 5.2.1 (-1 per incorrect sector)

(5)
[25]

SECTION B

QUESTION 6

6.1 6.1.1

$$\text{cost} = \frac{R225,20}{40l}$$

$$\text{cost} = R5,63/l$$

1 mark method

1 mark correct answer

(2)

6.1.2

A 100

B 50

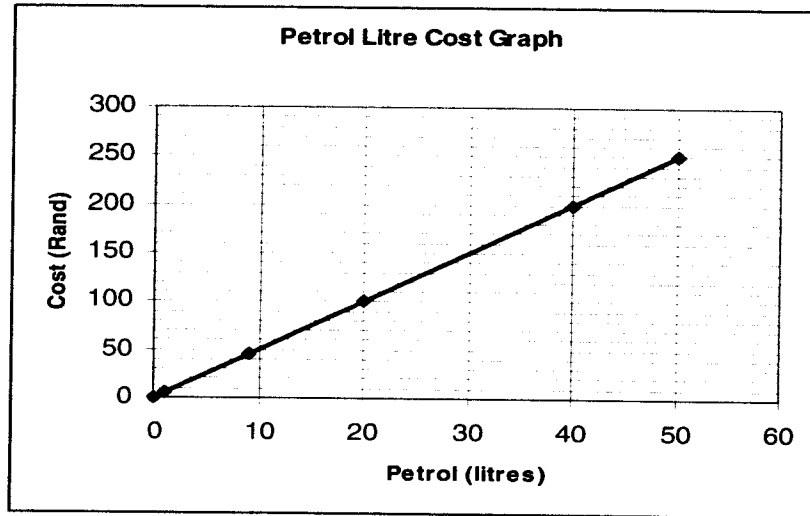
1 mark correct answer

1 mark correct answer

(2)



6.1.3



Scale 2
Plotting of points 2
Labelling axis 1 (5)

6.1.4 Read/Estimate from graph / 26 ¢ - R 130, 00
R125 < R130 < R135 2 marks correct value (2)

6.1.5 Read/Estimate from graph / R217 - 43 ¢
40 ¢ < 43 ¢ < 46 ¢ 2 marks correct value (2)

6.2 6.2.1 $6k\text{¢} \times R0,00 = R0,00$
 $6k\text{¢} \times R3,00 = R18,00$
 $8k\text{¢} \times R4,20 = R33,60$
Total Cost = R 51,60 1 mark for (0 – 6)k¢
2 marks for ((6 – 12)k¢
2 marks for (12 – 30)k¢
1 mark correct answer (6)

6.3 6.3.1 Simple Interest :
 $= R1300,00 \times 30\%$
 $= R390,00$

 $R1\ 300,00 + R390,00$
 $= R1\ 690,00$ 1 mark method
1 mark percentage
1 mark correct answer (3)

6.3.2 Instalment for a year:

 $R1\ 690,00 \div 12$
 $= R140,83$ 1 mark method
1 mark correct answer (2)

6.3.3 Balance after 4th instalment:

 $R140,83 \times 4$
 $= R563,32$

 $R1\ 690,00 - R563,32$
 $= R1\ 126,67$ 1 mark method
1 mark correct value of
4th instalment
1 mark correct answer (3)

[28]



QUESTION 7

- 7.1 Policy 1 mark correct answer (1)
- 7.2 $R\ 7\ 800,00 + R\ 2\ 800,00 = R\ 10\ 600,00$ 2 marks correct answer (2)
- 7.3 $R\ 2\ 900,00 - R\ 1\ 200,00 - R\ 450,00 - R\ 350,00 - R\ 100,00 - R\ 500,00 = R\ 300,00$
1 mark method
1 mark correct answer (2)
- 7.4 $R\ 7\ 850 + R\ 4\ 900 + R\ 7\ 938 = R\ 20\ 688$ 2 marks correct answer (2)
- 7.5 $0,1 \times R\ 200\ 000 = R\ 20\ 000,00$
- Surplus = $R\ 7\ 850,00 + R\ 4\ 900,00 + R\ 7\ 938,00$ 2 marks percentage
= $R\ 20\ 688,00$ 1 mark using surplus
1 mark difference
- YES (She is still left with R 688) 2 marks conclusion (6)
- [13]

QUESTION 8

- 8.1 8.1.1 Volume = $50 \times 30 \times 20 = 30000\text{cm}^3$ 1 mark formula
1 mark values
1 mark correct answer
-1 mark no units (3)
- 8.1.2 Oil (l) = $\frac{30000}{1000} = 30$ litres 1 mark method
2 marks correct answer
-1 mark no units (3)
- 8.1.3 Cost $30\ \text{l} \times R\ 17,50 = R\ 525,00$ / liter 1 mark method
2 marks correct answer
-1 mark no units (3)
- [11]

QUESTION 9

- 9.1 9.1.1 2 marks per correct value

	Orange	Mango	Peach	Apple
Males	55	60	25	70
Females	40	60	80	40

(4)



9.1.2	A	Males : $55 + 60 + 25 + 70$ $= 210$	2 marks correct answer	(2)
	B	Females: $40 + 60 + 80 + 40$ $= 220$	2 marks correct answer	(2)
9.1.3		Mango – 120 sold	2 marks correct answer	(2)
9.1.4		Mango	1 mark correct answer	(1)
				[11]
			TOTAL SECTION B:	63
			GRAND TOTAL:	148

