basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ANNUAL NATIONAL ASSESSMENTS 2014
GRADE 6 MATHEMATICS
MEMORANDUM

MARKS: 75

This memorandum consists of 4 pages.

General marking note:
1. **Give full marks for answers only, unless otherwise stated.**
2. **Accept any alternative correct solution that is not included in the memorandum.**
3. **CA refers to consistency accuracy. See Question 4.3 as an example.**

QUESTION		EXPECTED ANSWER		CLARIFICATION	MARK	TOTAL
1	1.1	D ✓			1	
	1.2	B ✓			1	
	1.3	A ✓			1	
	1.4	D ✓			1	
	1.5	D ✓			1	
	1.6	B ✓			1	
	1.7	A ✓			1	
	1.8	C ✓			1	
	1.9	B ✓			1	
	1.10	D ✓			1	10
2		4 x 10 000 or 40 000 or 4 x 10^4 or forty thousand ✓		Any of the given options : 1 mark		1
3		60 000 ✓		60 000: 1 mark		1
4	4.1	42 152 28 945 +76 361 147 458 ✓ ✓	If the answer is wrong the learner will be credited with one mark if he has added the units, tens and hundreds correctly.	All digits correct 147 458: 2 marks. Digits 458: 1 mark Digits 147: 1 mark	2	
	4.2	87 546 − 43 968 43 578 ✓✓	If the answer is wrong the learner will be credited with one mark if he has subtracted the units, tens and hundreds correctly.	All digits correct 43 578: 2 marks. Digits 578: 1 mark Digits 43: 1 mark	2	

	4.3	3 107 x 35 15 535 ✓ 93 210 ✓ 108 745 ✓ or 3 107 x 35 = 3 107 x 5 x 7 = 15 535 x 7 = 108 745 or 3 107 x 35 = 3 107 x 7 x 5 = 21 749 x 5 = 108 745 Example of CA 3 107 x 35 12 532 x (incorrect no mark) 93 210 ✓ 105 742 ✓ (added correctly) 3107 x 35 12 532 x (incorrect no mark) 83 210 x (incorrect no mark) 95 742 ✓(added correctly)	Answer only: 3 marks 3107 x 5 =15 535: 1 mark 3107 x 30 =93 210: 1 mark 15 535 + 93 210 = 108 745: 1 mark	3	
	4.4	476 ✓ 15 ⟌ 7140 − 60 ✓ 114 − 105 ✓ 90 − 90 or 7 140 ÷ 15 = 7140 ÷ 5 ÷ 3 = 1 428 ÷ 3 = 476 or 7 140 ÷ 15 = 7 140 ÷ 3 ÷ 5 = 2 380 ÷ 5 = 476	Answer only: 3 marks 60: 1 mark 105: 1 mark Apply CA	3	
	4.5	$4\frac{3}{8}+2\frac{1}{8}$ or $4\frac{3}{8}+2\frac{1}{8}$ $= 4 + \frac{3}{8} + 2 + \frac{1}{8}$ $= \frac{35}{8} + \frac{17}{8}$ ✓ $= 6 + \frac{4}{8}$ ✓✓ $= \frac{52}{8}$ ✓ $= 6\frac{1}{2}$ $=6\frac{1}{2}$ Do not penalize $6\frac{4}{8}$ or $6\frac{2}{4}$ or $\frac{52}{8}$ ✓✓	Answer only : 2 marks 6: 1 mark $\frac{4}{8}$: 1 mark $6\frac{1}{2}$: 2 marks	2	
	4.6	$\frac{2}{5}$ of 300 or $\frac{2}{5}$ of 300 = 300 ÷ 5 ×2 ✓ = 2 x 60 ✓ (because 300 ÷ 5 = 60) = 120 ✓ = 120 ✓	120: 2 marks Calculation: 1 mark	2	

	4.7	$5\frac{3}{5} - 2\frac{1}{5}$ or $5\frac{3}{5} - 2\frac{1}{5}$ $= 3\ \frac{2}{5}$ ✓✓ $= 5 + \frac{3}{5} - 2 - \frac{1}{5}$ $= 5 - 2 + \frac{3}{5} - \frac{1}{5}$ $= 3\ \frac{2}{5}$ or $\frac{17}{5}$ ✓✓	Answer : 2 marks 3: 1 mark $\frac{2}{5}$: 1 mark	2	
	4.8	59,3 – 25,8 33,5 ✓✓ or 59,3 – 25,8 = 33,5 ✓✓	33,5 : 2 marks 33 : 1 mark 0,5 : 1 mark	2	18
5		(14 ÷ 2) + (51 – 48) =10 ✓	10 : 1 mark		1
6		4,01 , 4,3 , 4,5 , 4,8✓	1 mark : correct order / sequence		1
7		28, 35, 42, 49 ✓	28, 35, 42, 49 : 1 mark		1
8		Number of packets = 947 ÷ 8 ✓ = 118 r 3 ✓ 11 8 r 3 8⟌947 –8 14 – 8 67 – 64 ∴ Number of packets needed = 118 ✓	118: 3 marks 947 ÷ 8: 1 mark 118 r 3: 1 mark		3
9		336✓	336 : 1 mark		1
10	10.1	75% ✓	75%: 1 mark	1	
	10.2	0,5✓	0,5 : 1 mark	1	
	10.3	$\frac{1}{4}$ ✓	$\frac{1}{4}$: 1 mark	1	3
11		25 280 ✓	25 280: 1 mark		1
12		Peter's amount = R240 ÷ 12 ✓ = R20 ✓	R20: 2 marks R240 ÷ 12: 1 mark		2
13		24 ✓	24: 1 mark		1
14		Input : 15 ✓ Output : 29 ✓	15: 1 mark 29: 1 mark		2
15	15.1	Input : 3 ✓	3: 1 mark	1	
	15.2	Input : 7 ✓	7: 1 mark	1	2
16		13 matches✓	13 : 1 mark		1
17	17.1	Obtuse ✓	1 mark	1	
	17.2	Right angle or reflex angle ✓	1 mark	1	2

18	18.1	Octagon ; Trapezium ; Rectangle or	Any three answers	1	
	18.2	Hexagon ✓✓✓	1 mark each.	1	
	18.3			1	3
19	19.1	opposite ✓	1 mark	1	
	19.2	two ✓	1 mark	1	2
20		Number of vertices : 10 ✓ Number of edges : 15 ✓ Number of faces : 7 ✓	1 mark each.		3
21		No. of litres saved = 9,5 - 8,7 ✓ = 0,8 ✓	0,8: 2 marks 9,5 – 8,7 : 1 mark		2
22	22.1	9 hours ✓	9 hours: 1 mark	1	
	22.2	8.00 a.m. ✓or 08:00 or 8 o'clock	1 mark	1	2
23		600 ml = 0,6 l ✓	0,6 l : 1 mark		1
24		Zola ✓	Zola : 1 mark		1
25	25.1	56,8 kg ✓	56,8 kg : 1 mark	1	
	25.2	56 800 g ✓	56 800 g: 1 mark	1	2
26	26.1	Pete, Alice and Ruth ✓	Must write all three names : 1 mark	1	
	26.2	Thato ✓	1 mark	1	
	26.3	Number of marbles = 10 + 50 = 60 ✓	60 : 1 mark	1	
	26.4	Pete's % = $\frac{10}{100}$ ✓x 100 = 10 ✓	10 : 2 marks $\frac{10}{100}$: 1 mark	2	
	26.5	Fraction = $\frac{50}{100}$ or $\frac{5}{10}$ or $\frac{1}{2}$ ✓	$\frac{1}{2}$: 1 mark.	1	6
27		Mode = 7 ✓	7: 1 mark.		1
28		A = 50✓	Fig 1: 1 x 2 + 2 x 3 = 8 Fig 2: 2 x 3 + 3 x 4 = 18 Fig 3: 3 x 4 + 4 x 5 = 32 Fig 4: 4 x 5 + 5 x 6 = 50		1
				TOTAL	**75**