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KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 11

MATHEMATICAL LITERACY

COMMON TEST

JUNE 2022

MARKING GUIDELINE

MARKS: 100

SYMBOL	EXPLANATION
M	Method
MA	Method with accuracy
CA	Consistent accuracy
A	Accuracy (Answer)
C	Conversion
S	Simplification
RT/RG/RD	Reading from a table/ graph/ diagram
NPR	No penalty for units/rounding
SF	Correct substitution in a formula
O	Opinion/ reason/deduction/example
J	Justification
R	Rounding off
F	deriving a formula
E	Explanation
U	Units
AO	Answer only full marks

This marking guideline consists of 5 pages.

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QUESTION 1 [20 MARKS]			
QUE	**SOLUTION**	**EXPLANATION**	**L/T**
1.1.1	Rands = $\frac{103,42}{100}$ ✓M = R1,0342✓CA	1M, Conversion dividing by 100 1CA,Answer **Accept R1,03** **NPR** (2)	L1 F
1.1.2	Cost = R1,0342 ×348,2kwh ✓M = R360,108 =R360,11 ✓CA **OR** Cost = 103,42 ×348,2kwh ✓M =36 010.844 cents ✓CA	1M, Multiplying by Rate 1CA, Answer in rands **Accept R358,65** **OR** 1M, Multiplying by rate 1CA, Answer in cents (2)	L1 F
1.1.3	✓M Block 1 tariff = $\frac{87,5}{100}$ ×103,42 =90,4925 cents✓A	1M, Multiplying rate by percentage 1A, Answer **NPR** (2)	L1 F
1.2.1	Number scale✓✓A	2A, Answer (2)	L1 MP
1.2.2	One unit on the map represents twenty thousand units in reality/actual ground✓✓E **OR** The map is 20 000 times smaller than the actual ground. ✓✓E	2E, Explanation (2)	L1 MP
1.2.3	Meters = $\frac{20\,000cm}{100}$ ✓MA = 200 ✓A	1MA, Dividing by 100 1A, Answer (2)	L1 MP
1.3.1	10 km ✓✓RT	2RT, Answer (2)	L1 M&P
1.3.2	25 km ✓✓RT	2RT, Answer (2)	L1 M&P
1.3.3	Saddle Path ✓✓RT	2RT, Answer (2)	L1 M&P
1.3.4	Woodcutters Trail ✓RT Block House ✓RT	1RT, Answer 1RT, Answer (2)	L1 M&P
		[20]	

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QUESTION 2[30 MARKS]			
QUE	**SOLUTION**	**EXPLANATION**	**L/T**
2.1.1	05 March 1998 ✓✓A	2A, Answer **Accept 980305 OR 05/03/1998** (2)	L1 F
2.1.2	Service Period = 14 months 12 ✓M = 1,166666666 1year 2months ✓A	1M, Dividing by 12 1A, Correct years and months (2)	L2 M
2.1.3	**A** = —— × R7200✓M = R72 ✓A	1M, Multiplying R7200 by 1% 1A, Answer (2)	L2 F
2.1.4	**B** = R22 +R250 +R72 +R680✓M = R1024 ✓CA ✓M **C** =R7200 – R1024 =R6176 ✓CA	**CA from 2.1.3** 1M, Adding correct values 1CA, Answer 1M,Subracting Correct values 1CA, Answer (4)	L2 F
2.1.5(a)	UIF benefit = R86400 × 60% ✓A ✓SF 365 =R142,03 ✓CA His statement is incorrect ✓J	1A, Annual gross 1SF, Correct substitution 1CA, Answer 1J,Justification (4)	L3 F
2.1.5(b)	✓A Agree, All UIF claims that are within 5years are payable irrespective of nature of departure. ✓✓R	1A, Answer 2R, Reason (3)	L4 F
2.2.1	Duration = —— ✓M = 1 hour✓A	1M, Dividing by 60 1A, Answer (2)	L2 M
2.2.2	R120✓✓RT	2RT, Answer (2)	L1 F
2.2.3	Daily cost(0-5days) = R688 ✓M 5 days =R137,60✓A Difference = R137,60-R54✓M =R83,60 Her statement is correct✓J	1M,Dividing by 5 days 1A, Daily rate of R137,60 1M, Difference 1J, Justification (4)	L3 F
2.2.4	Step graph✓✓A	2A, Answer (2)	L1 F
2.2.5	P(above R90) = – ✓A ✓A = – ✓CA **OR** P (above R90) = 1 -– ✓M✓A = – ✓CA	1A, Numerator 1A, Denominator 1CA, Simplification **OR** 1M, Probability concept 1A, Correct fraction 1CA, Simplification (3)	L2 P
		[30]	

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QUESTION 3 [30 MARKS]			
QUE	**SOLUTION**	**EXPLANATION**	**L/T**
3.1.1	Total Distance = 60 + 33 + 27 ✓MA = 120km ✓A	1MA, Adding all correct distances 1A,Answer (2)	L2 M&P
3.1.2	Average speed = ——— ✓SF = ——— ✓C = 60km/h ✓A ✓U	1SF, Correct substitution 1C, Conversion to hours 1A, Answer 1U, Units (4)	L3 M
3.1.3	Distance = 460 – 280 **OR** 684 – 504 = 180km ✓M Scale = 2.5cm : 180km ✓M = 2.5 : 18 000 000 ✓C = 1: 7 200 000 ✓CA	 1M, Measuring distance 1M, Concept of scale 1C, Conversion 1CA, Answer (4)	L3 M
3.1.4	Measured distance = 5cm ✓M Scale = 1 : 7 200 000 Actual distance = 5 x 7 200 000 ✓CA = 36 000 000 = 360km ✓ CA The distance given is incorrect ✓O	**CA from 3.1.3** 1M, Measured distance 1CA, Using scale 1CA, Distance 1O, Deduction (4)	L4 M
3.1.5	• High traffic volumes ✓✓O **OR** • Poor road condition **OR** • Delays caused by traffic officials **OR** • Road accidents **OR** Any other valid reason	2O, Opinion (2)	L4 M&P
3.2.1	South East ✓RT	2RT,Answer (2)	L1 MP
3.2.2(a)	Ratio = ——— : ——— ✓MA = 1 mile :1,61km✓A	1MA, Dividing by 55 both sides 1A, Correct answer (2)	L2 M
3.2.2(b)	Duration = 17:30 -05:30 ✓M = 12hours✓A	1M, Subtracting times 1A, Answer **AO** (2)	L2 M
3.2.3	Because the starting point of the marathon is at the highest point above sea level✓✓O **OR** The finishing point is at the lowest height above sea level✓✓O	 2O, Reason (2)	L4 MP
3.2.4	Male athletes =~~x 11~~ 000✓M = 6050✓A	1M, Percentage concept 1A, Correct answer **AO** (2)	L2 MP

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QUE	SOLUTION	EXPLANATION	L/T
3.2.5	In order to disqualify incompetent athletes✓✓O **OR** In order to manage broadcasting times for other programmes. ✓✓O **OR** Athletes won't run for the rest of the day. ✓✓O **OR** Any other valid reason	2R, Reason (2)	L4 MP
3.2.6	Distance = 74km – 45km✓RT = 29km✓CA	1RT, Correct distance difference 1CA, Answer **Accept 26km to 32km** (2)	L3 MP
		[30]	

QUESTION 4 [20 MARKS]			
QUE	**SOLUTION**	**EXPLANATION**	**L/T**
4.1.1	Compound bar graph✓A Heading ✓A	1A, Correct graph 1A, Answer (2)	L1 DH
4.1.2	No of hats = 54 – 10✓MA = 44 hats✓A	1MA, Correct values subtracted 1A,Answer (2)	L3 DH
4.1.3	Shoes = 29+20+14+10+4+12 ✓M =89✓CA	1M, Adding values 1CA, Number of shoes (2)	L2 DH
4.2.1	Survey ✓✓A	2A, Answer (2)	L1 DH
4.2.2	Mean = ✓M $\frac{350+999+450+280+350+720+192+800+450+220+280}{11}$ $=\frac{5091}{11}$✓MA =R462,82✓CA	1M,Adding values 1MA,Dividing by 11 1CA, Answer. (3)	L2 DH
4.2.3	R39,R39.20,R49.90;R52;R52;**R55,**R69,90;R89,90;R92; R99;R409 ✓M VAT (median) = 15% ×R55✓CA✓MA =R8,25 Incorrect statement. ✓J	1M, Arranging prices 1CA,Correct median 1MA, Calculating vat by15% 1J, Justification (4)	L4 DH
4.2.4	Range = R999- R192✓MA =R807 ✓A	1MA, Range concept 1A,Answer **AO** (2)	L2 DH
4.2.5	✓A ✓✓E Mode, mode is not affected by outliers/ the modal price will indicate the most favourable item by customers.	1A,Answer 2E,Explanation (3)	L4 DH
		[20]	
		TOTAL MARKS: 100	

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