KWAZULU-NATAL PROVINCE

EDUCATION

REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE



GRADE 12

MATHEMATICAL LITERACY P2

COMMON TEST

MARKING GUIDELINE



JUNE 2022

MARKS: 100

Symbol	Explanation
M	Method
M/A	Method with Accuracy
CA	Consistent Accuracy
A	Accuracy (Answer)
AO	Answer only full marks
C	Conversion
S	Simplification
RT / RG / RM/RP	Reading from table / Reading from graph / Reading from map/Reading from plan
F	Choosing the correct formula
E	Explanation
D	Correct definition
SF	Substitution in formula
O	Opinion
J	Justification
P	Penalty e.g. for no units, incorrect rounding, etc
R	Rounding off / Reason

This marking guideline consists of 8 pages.

Copyright Reserved

QUESTION 1 [20 MARKS] **AO full marks**			
Ques	**Solution**	**Explanation**	**T&L**
1.1.1	1 April 2022 **OR** 01/04/2022✓✓RT	2RT correct answer (2)	M L1
1.1.2	Low tide✓✓RT	2RT correct answer (2)	M L1
1.1.3	22:12✓✓A	2A correct answer (2)	M L1
1.1.4	0,15 m✓✓RT	2RT correct answer (2)	M L1
1.1.5	✓RT Difference in time =10:04 AM– 3:55AM✓M = 6 hours 9 minutes✓CA	1RT correct times 1M subtracting 1CA correct answer (3)	M L1
1.2.1	Layout plan is a plan showing location of the shops in relation to one another ✓✓E	2E correct explanation **Accept 1 out of 2 for general definition** (2)	MP L1
1.2.2	16 shops ✓✓A	2A correct answer (2)	MP L1
1.2.3	North West✓✓RM	2RM correct answer (2)	MP L1
1.2.4	Number scale✓A One unit on the map represents 5 000 units in reality✓✓E	1A correct scale **Accept ratio scale** 2E correct explanation (3)	MP L1
			[20]



Copyright Reserved

QUESTION 2 [21 MARKS]			
Ques	**Solution**	**Explanation**	**T&L**
2.1.1	Strip map✓✓A	2A correct answer (2)	MP L1
2.1.2	Strip map is not drawn to scale✓✓E	2E correct explanation (2)	MP L2
2.1.3	N11; N5 and N3✓✓✓RM	3RM correct answer (3)	MP L3
2.1.4	✓RM Distance = 289 – 166✓M =123km✓CA **OR** ✓RM Distance = 391 – 268✓M =123km✓CA	1RM correct distance 1M subtracting 1CA answer 1RM correct distance 1M subtracting 1CA answer (3)	MP L2
2.2.1	Bar scale✓✓A	2A correct answer **Accept Line scale** (2)	MP L2
2.2.2	2,7 cm = 20 000 000 cm✓A 1: 7 407 407✓CA **OR** 1,4 cm = 10 000 000 cm✓A 1:7 142 857 ✓CA	1A measurement 1CA answer **Accept 2,6cm to 2,8cm** 1A correct measurement 1CA answer **Accept 1,3cm to 1,5cm** **NPR** (2)	MP L2

Copyright Reserved

2.2.3	✓A Actual distance = (6 cm × 7 407 407) ÷ 100 000✓M = 444,44km✓CA	**CA from Q2.2.2** 1A correct distance 1M dividing 1CA answer **Accept 5,9cm to 6,1cm** (3)	MP L2
2.2.4	4:45 -1:00 =3H45M 3h 45m ÷ 60✓C = 3,75 hours ✓MCA Speed = (444,44 ÷ 3,75) =118,52 km/h✓CA Claim is incorrect✓CA	**CA from Q2.2.3** 1C conversion 1MCA dividing 1CA answer 1O opinion (4)	MP L2
			[21]

QUESTION 3 [30 MARKS]			
Ques	**Solution**	**Explanation**	**T &L**
3.1.1.	Conversion = 20 × 1000✓C = 20 000 cm^3 Radius = 332 ÷ 2✓M = 166 mm Convert to cm= 166 ÷ 10✓C = 16,6 cm✓CA 20 000 = 3,142 ×$(16,6)^2$ × Height✓SF Height = 20 000 ÷ 3,142 ×$(16,6)^2$ ✓S = 23,1cm✓CA Statement is incorrect✓O	1C multiplying by 1000 1M dividing by 2 1C dividing by 10 1CA answer 1SF substitution 1S simplification 1CA answer 1O opinion (8)	M L3
3.1.2	Total volume = 20 × 24✓MA = 480 litres✓CA = 480 litres ÷ 1000✓C = 0,48 kilolitres✓CA	1MA multiplying by 24 1CA answer 1C dividing by 1000 1CA answer **NPR** (4)	M L2
3.1.3	✓CA 480 litres × 5✓M =2 400 m^2✓CA	**CA from Q3.1.2** 1CA number of litres 1M multiplying by 5 1CA answer (3)	M L2
3.2.1	Total height = 14 +23,1+23,1✓MCA = 60,2 cm✓CA	**CA from Q3.1.1** 1MCA adding correct values 1CA correct answer (2)	M L2

Copyright Reserved

3.2.2	Convert to metres = 60,2 ÷ 100 ✓C =0,602 SA = 2(1,4×0,602) + 2(1 × 0,602) +2(1,4 × 1) ✓SF = 5,69 m^2✓CA	**CA from Q3.2.1** C conversion 1SF substitution 1CA answer (3)	M L3
3.2.3	Total metres = 4,8 metres✓✓CA	2CA answer **Accept 5; 6 or 9,6** **NPR** (2)	M L3
3.2.4	✓SF Total area = (1×1,4) × 6✓M = 8,4 m^2✓CA = 9 m^2✓R	1SF area 1M multiply by 6 1CA answer 1R rounding (4)	M L2
			[30]

Copyright Reserved

QUESTION 4 [29 MARKS]			
Ques	**Solution**	**Explanation**	**T& L**
4.1	✓A Duration = 17:00 – 6:20 ✓M = 10 hours 40 minutes ✓A Claim is incorrect✓O	1A correct times 1M subtracting 1A correct answer 1O opinion (4)	M L4
4.2	✓A Halfway mark = 109 ÷ 2✓MA = 54,5 km✓CA Smitswinkel	1A total distance 1MA dividing by 2 1CA answer **AO** (3)	MP L2
4.3	Distance to finish = 51,2 km✓RM Time = 51,2 ÷ 15✓M =3,41 hours 17H00 – 14H00✓M =3 hours✓CA No will not reach finish in 3 hours✓O	1RM correct distance 1M dividing by speed 1M subtraction 1CA answer 1O opinion (5)	M L4
4.4	✓RM Distance = 108-95✓M =13 km✓A	1RM correct distance 1M subtracting 1A correct distance (4)	M L2

Copyright Reserved

4.5	Measure distance = 8 cm✓A Number scale = 8 cm = 13 km✓MA 8 cm = 1 300 000✓C 1:162 500✓CA	**Accept 1mm leeway** 1A measuring 1MA concept of scale 1C conversion 1CA answer (4)	MP L3
4.6	5+6=11✓A 22 000 ÷ 11✓S = 2 000 Number of local cyclists = 2 000 × 5 ✓M =10 000 Number of international = 2 000 × 6✓M = 12 000 Total = (10 000×200) + (12 000× 1 200) ✓M = R16 400 000✓CA	1A concept of ratio 1S simplification 1M multiplying by 5 1M multiplying by 6 1M adding 1CA answer (6)	MP L3
4.7	P(international cyclists) = $\frac{12000}{22000}$ ✓MCA × 100%✓M ✓MA = 54,55%✓CA	**CA from Q4.6** 1MCA number of international cyclists 1MA total number of entrants 1M multiplying by 100 1CA answer **NPR** (4)	P L3
			[29]

TOTAL MARKS: 100

Copyright Reserved