JOHANNESBURG WEST DISTRICT

CONTROLLED TEST

GRADE 10

MATHEMATICAL LITERACY

04 SEPTEMBER 2024

MARKING GUIDELINES

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MARKS: 50

Codes	Explanation
M	Method
MA	Method with Accuracy
CA	Consistent Accuracy
MCA	Method with Consistent Accuracy
A	Accuracy
C	Conversion
D	Define
J	Justification/Reason/Explain
S	Simplification
RD	Reading from a table OR a graph OR a diagram OR a map OR a plan
F	Choosing the correct formula
SF	Substitution in a formula
O	Opinion
P	Penalty, e.g. for no units, incorrect rounding off, etc.
R	Rounding Off
NP	No penalty for rounding OR omitting units

These marking guidelines consist of 4 pages.

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QUESTION 1 [10 Marks]		
Q	**Solution**	**Explanation**
1.1	Perimeter is the total length/distance around a shape. ✓✓A	2A correct definition (2)
1.2	True ✓✓A	2A correct answer (2)
1.3	Radius = $\frac{20\ cm}{2}$ ✓MA = 10 cm ✓A	1MA dividing by 2 1A correct answer **AO** (2)
1.4	One unit on the map represents 50 000 units in reality ✓✓A	2A correct answer (2)
1.5	2-D model ✓✓A	2A correct answer (2)

QUESTION 2 [10 Marks]		
Q	**Solution**	**Explanation**
2.1	Six **OR** 6 ✓✓A	2A correct answer (2)
2.2	7; 8; 10; 11; 12; 20 and 21 ✓✓A	2A correct answer (2)
2.3	Row 21 ✓✓A	2A correct answer (2)
2.4	Length of the airplane on the plan = 50 m × 1 000 ✓MA = 50 000 ✓A ✓M $= \frac{\mathbf{50\ 000}}{\mathbf{200}}$ = 250 mm ✓CA	1MA times by 1 000 1A answer of 50 000 1M dividing by 200 1CA final answer (4)
		[10]

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QUESTION 3 [10 Marks]

Step number on Image	Statement number/description
Step 1	b) Connect the speaker cables. ✓✓A
Step 2	e) Connect the FM antenna. ✓✓A
Step 3	d) Connect the control cable. ✓✓A
Step 4	a) Connect the composite video cable to the TV. ✓✓A
Step 5	c) Connect the power cables of the system and TV to AC power. ✓✓A

QUESTION 4 [5 Marks]

Q	Solution	Explanation
4.1	Participation in sports allows kids to make lasting ✓A friendships, Develop communication skills, ✓A Feel a sense of community, Learn to respect their teammates and coaches. *(Accept any 2 correct/sensible answers)*	1A correct answer 1A correct answer (2)
4.2	Area of circle = πr^2 $= 3{,}142 \times (9{,}15\ \text{m})^2$ ✓SF $= 263{,}056095\ \text{m}^2$ ✓A His claim is VALID. ✓J	1SF substitution 1A correct answer 1J justification (3)
		[5]

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QUESTION 5 [15 Marks]		
Q	**Solution**	**Explanation**
5.1	Perimeter of a rectangle = 2 (length + Breadth) = 2 (6 cm + 4,5 cm) ✓SF = 2 (10,5 cm) = 21 cm ✓A ✓M ∴ 21 cm × $\frac{150}{100}$ ✓M = 31,5 m ✓CA ✓U	1SF substitution 1A correct answer 1M times by 150 1M dividing by 100 1CA final answer 1U correct unit (6)
5.2	Circumference = 2 × π × radius ✓A = 2 × 3,142 × (90 cm) ✓SF = 565,56 cm ✓CA ∴ $\frac{565{,}56\ cm}{70\ cm}$ ✓M = 8,079 ✓CA ≈ 8 guests ✓R ✓M ∴ **8 × 18 = 144 *guests*** ✓CA ***∴ No, the 18 tables will not be enough. They will only be able to host 144 guests and not 150*** ✓J	1A correct radius 1SF substitution 1CA answer 1M dividing by 70 1CA answer 1R rounding down 1M times by 18 1CA number of guests 1J justification (9)
		[15]
TOTAL: 50		

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