NATIONAL SENIOR CERTIFICATE EXAMINATION
SUPPLEMENTARY EXAMINATION – MARCH 2018

MATHEMATICAL LITERACY: PAPER I

MARKING GUIDELINES

Time: 3 hours | 150 marks

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Key: accuracy
continued accuracy
method
method accuracy
rounding
continued accuracy based on previous answer

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QUESTION 1

1.1 2018 (2)

1.2 1.2.1 Japan (accept Nagano) (2)

1.2.2 Africa (2)

1.2.3 (a) $\frac{7}{18}$ (2)

(b) $\frac{10}{18} = \frac{5}{9}$ (2)

(c) $\frac{4}{10} = \frac{2}{5}$ (2)

1.2.4 6,1 + 0,4 + 1,1 + 4,1 + 2,5 + 2,5 + 4,6
= $21,3 billion (3)

1.2.5 $\frac{6,1 - 0,4}{6,1} \times 100$
= 93,44% (4)

1.2.6 $15 billion ÷ 1,6133 = £ 9,30 billion (3)

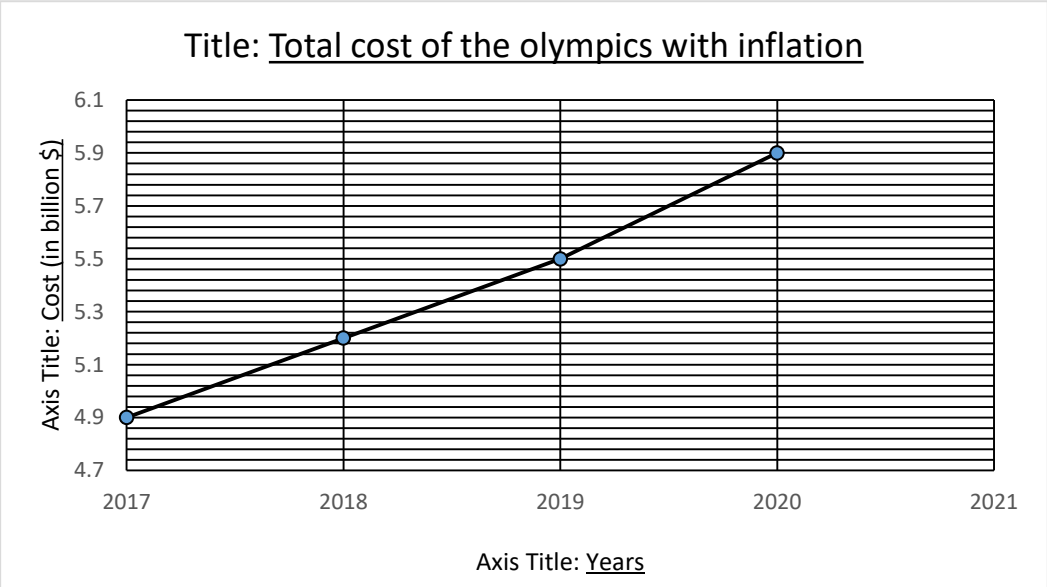
1.3 1.3.1 14 957 000 000 (2)

1.3.2 a = 5,5B (2)

b = 5,5B × 6,59%
= 0,4B (2)

c = 5,5B + 0,4B
= 5,9B (2)

1.3.3



(8)

1.4 1.4.1 400 000 + 100 000 = R 500 000 each (2)

1.4.2 $\frac{0,1 + 0,4}{2,7} \times 100$
= 18,52% (4)

1.5 1.5.1 500 000 + 700 000 = R1 200 000 (2)

1.5.2 Tax bracket 6 **OR** the last bracket (2)

1.5.3 Primary **OR** R 13 500 (2)

1.5.4 206 964 + 41% (1 200 000 – 701 300) – 13 500
= R397 931 (5)

[55]

QUESTION 2

2.1 2.1.1 N1 (2)

2.1.2 Milnerton (2)

2.1.3 78 mm (accept between 76–80 mm) (2)

2.1.4 78 × 400 000
= 31 200 000 mm ÷ 1 000 000
= 31,2 km (accept 30,4 km–32 km)
= 31 km (4)

2.2 2.2.1 SW (2)

2.2.2 Elephant Rock
Kiddies Rides Area (2)

[14]

QUESTION 3

3.1 4 million ÷ 8% = 50 million **OR** $\frac{4 \text{ million}}{x} : \frac{0{,}08}{1}$
x = 50 million (3)

3.2 3.2.1 230 ÷ 9
= 25,56 mm (2)

3.2.2 25,56 mm ÷ 10
= 2,556 = 2,56 cm (2)

3.2.3 5 : 95,5
1 : 19,1 (3)

3.2.4 Height = $\frac{5 \times 27}{2}$ **OR** $\frac{53}{68} : \frac{55}{\text{height}}$
= 67,5 mm height = 70,57 mm (3)

3.3 3.3.1 16 badminton players (2)

3.3.2 1 004 + 4 325 + 2 015 = 7 344 mm (2)

3.3.3 1 770 ÷ 1 000 = 1,77 m (2)

3.3.4 2,5 m^3 × $(100)^3$ = 2 500 000 cm^3 (2)
[21]

QUESTION 4

4.1 4.1.1 63% × 6,8 billion = 4,284 billion
= 4,28 (3)

4.1.2 $\frac{1}{4}$ × 100 = 25% (2)

4.1.3 6,8 ÷ 5 = 1,36 billion DVD players (3)

4.2 4.2.1 Compound Bar Graph **OR** Double Bar Graph **OR** Horizontal Duel (double) Bar Graph. (2)

4.2.2 57% × 1 000 = 570 people (3)
[13]

QUESTION 5

5.1 5.1.1 1 609 ÷ 2 = 804,5 m
804,5 ÷ 1 000 = 0,8045 km
= 0,80 km (3)

5.1.2 Speed = 0,8 ÷ $\frac{3}{60}$
= 16 km/h (3)

5.1.3 3,5 × 3 min.
= 10,5 min. (2)

5.1.4 Charing Cross (2)

5.2 5.2.1 3,2 – 2 = 1,2 cm (2)

5.2.2 C = 2(3,14) (2)
= 12,56 cm (2)

5.2.3 $\text{Area}_{big} = 3{,}14(3{,}2)^2 = 32{,}15\ cm^2$
$\text{Area}_{small} = 3{,}14(2)^2 = 12{,}56\ cm^2$
$\text{Area}_{ring} = 32{,}15 - 12{,}56 = 19{,}59\ cm^2$ (4)

5.3 5.3.1 £257,4 billion ÷ 9,9% = £2 600 billion
£2 600 billion – £257,4 billion = £2 342,6 billion

OR

£257,4 billion ÷ 9,9 × 90,1
= £2 342,6 billion (4)

5.3.2 3 700 000 – 630 000 = 3 070 000 jobs (3)

5.4 5.4.1 16 ^{o}C (2)

5.4.2 Summer (2)

5.5 5.5.1 15 ^{o}C and 17 ^{o}C (3)

5.5.2 9 °C (2)

5.5.3 $\frac{15 + 16 + 17 + 17 + 17 + 17 + 16}{7}$
$= \frac{115}{7}$
= 16,43 ^{o}C
= 16 ^{o}C (4)

5.5.4 $\frac{4}{7} \times 100 = 57\%$ (3)

5.6 5.6.1 £2,40 × 6 = £14,40 (2)

5.6.2 3 + 10 = £13,00 (2)

5.6.3 14,40 – 13
= £1,40 (2)
[47]

Total: 150 marks

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