MEMO/EXPECTED RESPONSES
Grade 10 March 2018

QUESTION 1 : MULTIPLE CHOICE QUESTIONS

1.1 D✓✓ (2)
1.2 A✓✓ (2)
1.3 B✓✓ (2)
1.4 A ✓✓ (2)
1.5 B✓✓ (2)
[10]

QUESTION 2

2.1 The temperature of a liquid at which its vapour pressure equals the external (atmospheric) pressure. ✓✓ (2)
2.2 Nitrogen. ✓ (1)
2.3 Copper✓
Potassium chloride✓ (2)
2.4 Potassium chloride✓ (1)
2.5 -78°C✓ (1)
[7]

QUESTION 3

3.1 The name of the elements involved.✓
The ratio number of each element.✓ (2)
3.2.1 ClO_3^- ✓
3.2.2 $Cr_2O_7^{2-}$ ✓ (2)
3.3.1 sulphate ion ✓
3.3.2 permanganate ion ✓ (2)
[06]

QUESTION 4

4.1 NaCl✓ (1)
4.2 CO_2✓ (1)
4.3 Na✓ (1)
4.3 SiO_2✓ (1)
4.5 Si✓ (1)
4.5.1 Metalloids have properties of metals and non-metals. ✓✓ (2)
4.5.2 Metalloids increase in conductivity with increasing temperature.✓
Metals decrease in conductivity with increase in temperature. ✓ (2)
4.6 $^{23}_{11}Na$ ✓✓ (2)
4.7 $1s^2\ 2s^2\ 2p^6\ 3s^1$ ✓✓ (2)
4.8 •Na✓✓ (2)
[15]

QUESTION 5

5.1 The temperature of a substance is a measure of the average kinetic energy of the particles. ✓✓ (2)
5.2 Thermometer✓ (1)
5.3.1 time✓ (1)
5.3.2 temperature✓ (1)
5.3.3 temperature of the classroom✓ (1)
5.4 Graph paper (5)
5.5 -9 (°C) ✓ (1)
5.6 Constant temperature. ✓
Latent heat is the energy absorbed overcome the intermolecular forces. ✓ (2)
[14]

QUESTION 6

6.1 Constructive interference is the phenomenon where the crest of one pulse overlaps with the crest of another to produce a pulse of increased amplitude. ✓✓ (2)

6.2 Principle of superposition is the algebraic sum of the amplitudes of two pulses that occupy the same space at the same time. ✓✓ (2)

6.3 (5)

	✓ Two crests or two troughs (any amplitude) ✓ Direction moving toward each other
	✓ Larger amplitude.
	✓ Two same sized crests or troughs. ✓ In the original directions

[09]

QUESTION 7

7.1 Transverse✓ (1)

7.2 8m/3 = 2.67 m✓✓ (2)

7.3 Frequency: The number of wave pulses per second. ✓✓ (2)

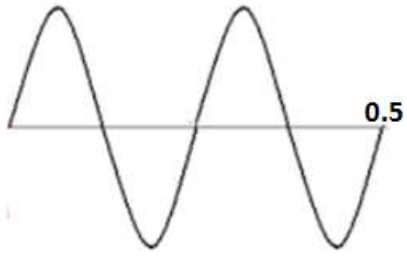
7.4 2 Hz✓✓ (2)

7.5 $v = f \times \lambda$✓

$= 2 \times 2.67$✓

$= 5.34\ m \cdot s^{-1}$✓ (3)

7.6 (2)

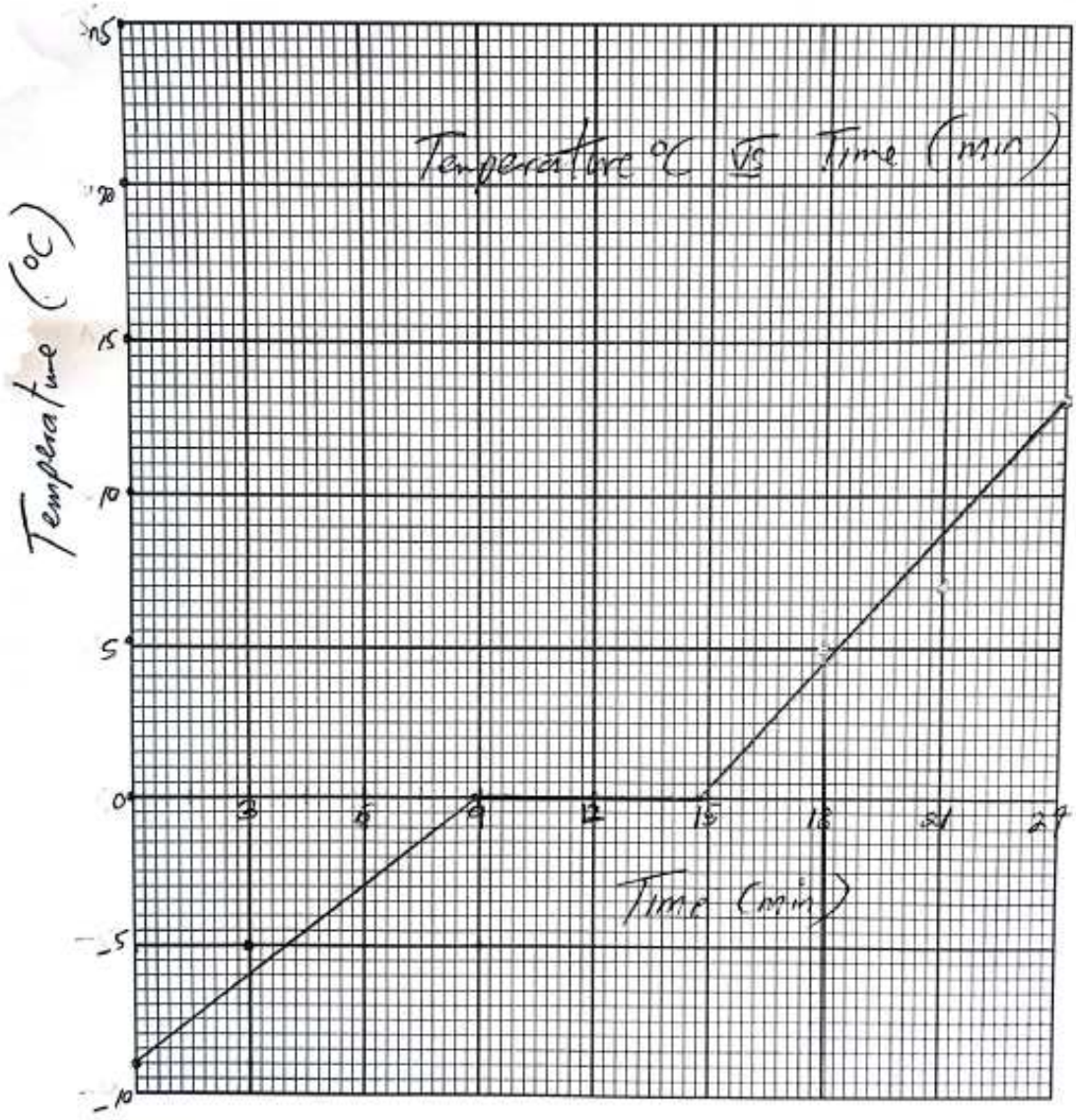


- ✓ two waves shown
- ✓ 0.5 shown

[12]

TOTAL = 75

Title: Grade 10 March test (2018) Q5.4.



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x-axis & y-axis with units = 1

Scale = 1

plotting = 1

(5)

3