SERIES 32 EXAMS
CHEMISTRY PP 233/3
MARKING SCHEME

1(a)   CT - 1 - table completed with realistic temperature readings
        D.P - 1- 1 or 0 dips consistently used.
        A - 1 1st reading => 2 of s
        T 1 temperature increases then decreases.

(i)   Plotting - 1
        Scale - ½ plots cover at least half of the grid provided
        Axes – ½ both axes correctly labeled.

Or

(ii)   Peak temperature - temperature at O = ans (ii)
(iii) $40cm^3$ x $1.0gcm^{-3}$ x 4.2 x DT = ans (a) (iii)
(b)   CT   - 1
        D.P - 1
        A   - 1
        P.A - 1
        F.A - 1
(c)(i) $\dfrac{25}{100}$ x 0.3 = 0.0075

        $\dfrac{0.0075}{2}$ = 0.00375

(ii) $\dfrac{250 \text{ x } 0.000375}{\text{Average volume}}$ = ans c (ii)

(iii) $\dfrac{40}{1000}$ x 0.5 = 0.02

(d)   0.02 - ans c (ii) = ans (d)

(e) $\dfrac{1}{\text{Ans (d)}}$ x ans a (iii)

        DH = ans

2(a)

OBSERVATION	INFERENCES
(a)(i) Effervescence/bubbles produced white ppt formed	CO_3^{2-}
(b)(i) Blue pp that does not dissolve in excess	Cu^{24}
(ii) Blue ppt that dissolve in excess to form deep blue solution	Cu^{24}
(ii) Brown solid deposited	Cu^{24}
(a) Burn with yellow sooty flame	-C = C- or > C = CT
(b) Turns from orange to green	>C- CT, -C = C- , -OH

(ii) Turns from orange to red	Acid solution
(iii) Effervescence /bubbles	H^+

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