

THE HONG KONG POLYTECHNIC UNIVERSITY
HONG KONG COMMUNITY COLLEGE

Subject Title : Environmental and Energy Engineering **Subject Code** : CCN2252
Session : Semester Two, 2016/17

Numerical Answers

Question C1

(b)(i) 0.821 m/s

Question C2

(a) 73.3 dB
(b)(i) 79.7 dBA
(b)(ii) 80.0 dBA
(c)(i) 0.0454, 15.31 m² Sabine
(c)(ii) 86.6dB

Question C3

(a)(ii) 17.02 mg/L, 7.62 mg/L, 3.08 mg/L
(a)(iii) 1.070 days, 6.94 mg/L

Question C4

(b)(i) $24.7 \times 10^6 \text{ m}^3$
(b)(ii) $4.01 \times 10^9 \text{ kJ/yr}$
(b)(iii) 64 houses

Question C5

(a) $75.0 \times 10^3 \text{ m}^3/\text{yr}$
(b)(i) $194.8 \times 10^3 \text{ kg CO}_2\text{-eq}$, $890 \times 10^3 \text{ kg CO}_2\text{-eq}$, $30.4 \times 10^3 \text{ kg CO}_2\text{-eq}$
(b)(ii) $63.7 \text{ kg CO}_2 - \text{eq}/\text{m}^2$