

THE HONG KONG POLYTECHNIC UNIVERSITY
HONG KONG COMMUNITY COLLEGE

Subject Title : Environmental and Energy
Engineering

Subject Code : CCN2252

Session : Semester Two, 2015/16

Numerical Answers

Question B1

- (a)(i) 0.947 m/s
- (a)(ii) $3.67 \times 10^{-4} \text{ g/m}^3$

Question B2

- (b)(i) 83.9 dBC
- (b)(ii) 81.7 dBC
- (c)(i) 0.0442, 14.16 m² Sabine
- (c)(ii) 84.7 dBA

Question B3

- (a)(ii) 17.43 mg/L, 2.19 mg/L
- (a)(iii) 2.12 days, 6.33 mg/L

Question B4

- (a)(i) $35.5 \times 10^6 \text{ m}^3$
- (a)(ii) $5.18 \times 10^9 \text{ kJ/yr}$

Question B5

- (b) $275 \times 10^3 \text{ kg CO}_2\text{-eq}$, $943 \times 10^3 \text{ kg CO}_2\text{-eq}$, $10.75 \times 10^3 \text{ kg CO}_2\text{-eq}$
- (c) 6.57 kg CO₂-eq/man-hour