

THE HONG KONG POLYTECHNIC UNIVERSITY
HONG KONG COMMUNITY COLLEGE

Subject Title : Physics I

Subject Code : CCN1049

Session : Semester Two, 2017/18

Numerical Answers

Question B1

0.517 N; 1.02 m/s

Question B2

- (a) 1.08 m/s; 1.72 m/s
- (b) 4.90 kg

Question B3

- (b) 0.707 m

Question B4

- (a) 0.802 mol; 2700 K
- (b) 4000 J

Question C1

- (a) 1.25 m/s
- (b) 628 m/s
- (c) 99.8%

Question C2

- (a) 7.49 m/s; 150 rad/s
- (b) $-6.48\hat{i} - 11.5\hat{j}$ m/s

Question C3

- (a) 129 Hz; 198 N
- (b) 142 m/s

Question C4

- (a)(i) 960 °C

- (a)(ii) 149 J/K
- (b)(i) 0.375
- (b)(ii) 3.04