

THE HONG KONG POLYTECHNIC UNIVERSITY
HONG KONG COMMUNITY COLLEGE

Subject Title : Engineering Thermodynamics **Subject Code** : CCN3135

Session : Semester Two, 2017/18

Numerical Answers

Question 1

- (a) 0.3058, 21.55 °C, 0.01106 m^3/kg
- (b) 600kPa, 0.215 m^3
- (d) 93.7 kJ
- (e) 130.20kJ/kg, 269.95kJ/kg, 13.54A

Question 2

- (a)(i) 71.3m/s
- (a)(ii) 0.286 kg/s
- (b)(i) 19.19 m^3/min
- (b)(ii) 0.2537

Question 3

- (a)(i) 10.67
- (a)(ii) 70.6%
- (a)(iii) 4.95 kW

Question 5

- (b)(i) 0.0382 W/m · K

Question 6

- (b)(i) 78 kW
- (b)(ii) 6.1g/kg, 5.27 m^3/s
- (b)(iii) 27.3 °C