

THE HONG KONG POLYTECHNIC UNIVERSITY  
HONG KONG COMMUNITY COLLEGE

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**Subject Title** : Introduction to Portfolio  
Management

**Subject Code** : CCN3102

**Session** : Semester Two, 2016/17

**Numerical Answers**

**Question B1**

- (a)  $E(R_{ET}) = 12\%$   
 $E(R_{PY}) = 8\%$
- (b)  $\sigma_{ET} = 6.9282\%$
- (c)  $E(R_p) = 9.2\%$   
 $\sigma_p = 9.07\%$
- (d)  $\beta_p = 1.01$
- (e) Sharpe ratio = 0.57  
Treydor ratio = 0.051
- (f) Jensen alpha = -0.86%

**Question C1**

- (e) Total return = 1.73%

**Question C2**

- (a) Price = \$1.54
- (b)  $P_0 = \$53.21$

**Question C3**

- (a) Modified duration =  $4.314 / (1.0320) = 4.180$  years
- (b)(ii) 2.857 cents per gallon.