

THE HONG KONG POLYTECHNIC UNIVERSITY
HONG KONG COMMUNITY COLLEGE

Subject Title : Economic and Social Statistics **Subject Code** : CCN2266

Session : Semester Two, 2014/15

Numerical Answers

Question 1

(a)(i)

Day	1	2	3	4	5	6
Centered five-day MA			390	398.40		

(a)(ii)

Day	1	2	3	4	5	6
Naïve forecast			394	385	395	412

Question 2

$$H = 4.7143$$

Question 3

(a) $w = 0.65$

(b)

Month	exp forecast	error
Jan		
Feb	77.00	5.000
Mar	81.00	-1.000
Apr	80.20	-7.200

(c) $d = 0.956$

Question 4

(a) 110

(b) $k = 38$
 $m = 42$

Question 5

- (a) 0.987
(c) 4.467%

Question 6

- (b) 0.7
0.1033

Question 7

- (a) 101
(b) -0.6

Question 8

- (a) Coefficient of variation for age = 14.42%
Coefficient of variation for amount of claims = 22.37%

(b)

Year	Deflated profit (in \$1,000)
1	6022.0000
2	6119.0476
3	6325.9259
4	6410.2564

Question 9

- (c) 0.5294 (or 52.94%)
(d) 0.71698 \approx 0.72

Question 10

- (b) 0.8997
(c) 0.9485412 \approx 0.95