

THE HONG KONG POLYTECHNIC UNIVERSITY
HONG KONG COMMUNITY COLLEGE

Subject Title : Engineering Communication **Subject Code** : CCN2296

Session : Semester One, 2016/17

Numerical Answers

Question A1

- (a) 12
- (b) 7

Question A5

- (a)) *10,0 *40,20 *20,20 *10,30 *10,0
or
*10,0 *10,30 *20,20 *40,20 *10,0
- (b) @10<0 @30<90 @14<315 @20<0 @36<214
or
@10<0 @36<34 @20<180 @14<135 @30<270

Question A6

- (a) 0.488 inch
- (b) 0.880 inch or 0.881 inch

Question A7

- (a) 0.208 inch
- (b) 0.386 inch

Question A8

- (a)(i)
 $T_{\text{hole}} = 25\mu\text{m}$
 $T_{\text{shaft}} = 16\mu\text{m}$
Max. Clearance = 23 μm
Max. Interference = -18 μm
- (a)(ii)
 $T_{\text{hole}} = 74\mu\text{m}$
 $T_{\text{shaft}} = 74\mu\text{m}$
Max. Clearance = 208 μm
Min. Clearance = 60 μm

(b)(i)

Actual size of hole $\varnothing 45$ at MMC = $\varnothing 45\text{mm}$

Tolerance zone = 0.049mm

Actual size of hole $\varnothing 70$ at MMC = $\varnothing 70\text{mm}$

Tolerance zone = 0.024mm

(b)(ii)

Actual size of hole $\varnothing 45$ at LMC = $\varnothing 45.025\text{mm}$

Tolerance zone = 0.024mm

Actual size of hole $\varnothing 70$ at LMC = $\varnothing 70.074\text{mm}$

Tolerance zone = 0.098mm