

THE HONG KONG POLYTECHNIC UNIVERSITY
HONG KONG COMMUNITY COLLEGE

Subject Title : Engineering Communication **Subject Code** : CCN2296
Session : Semester One, 2018/19

Numerical Answers

Question A4

- (a) *0,40 *20,40 *30,30 *30,20 *0,0
Or
*30,20 *30,30 *20,40 *0,40 *0,0
- (b) @40<90 @20<0 @14<315 (or @14<-45) @10<270 (or @10<-90) @36<214 (or @36<-146)
Or
@36<34 @10<90 @14<135 @20<180 (or @-20<0) @40<270 (or @40<-90)

Question A6

- (b)(i) $T_{\text{hole}} = 21\mu\text{m}$
 $EI = 7\mu\text{m}$
 $ES = 28\mu\text{m}$
Actual size of $\varnothing 30$ hole at MMC = $\varnothing 30.007\text{mm}$
Tolerance zone = 0.050mm
- Actual size of $\varnothing 30$ hole at LMC = $\varnothing 30.028\text{mm}$
Tolerance zone = 0.071mm
- (b)(ii) $T_{\text{hole}} = 46\mu\text{m}$
 $EI = -18\mu\text{m}$
 $ES = 28\mu\text{m}$
Actual size of $\varnothing 80$ hole at MMC = $\varnothing 79.982\text{mm}$
Tolerance zone = 0.050mm
- Actual size of $\varnothing 80$ hole at LMC = $\varnothing 80.028\text{mm}$
Tolerance zone = 0.096mm

Question A7

- (a) 0.567 inch or 0.568 inch
(b) 16.90mm or 16.92mm or 16.94mm or 16.96mm
(c) 11.53mm

Question A8

Ra = 2.64 μ m