

國立彰化師範大學106學年度碩士班招生考試試題

系所：電子工程學系(乙組選考丁)

科目：資料結構

資訊工程學系(選考甲)

資訊工程學系積體電路設計碩士班(選考丁)

☆☆請在答案紙上作答☆☆

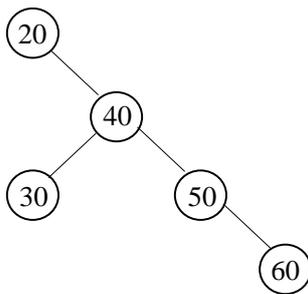
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7. If $A=2$, $B=3$, $C=4$, $D=5$, and $E=6$, illustrate the evaluations of following postfix expressions by Stack? (10%)

$A B / D E * A / - C -$

8. Refer to the unsorted data sequence $[60, 90, 40, 100, 80, 70, 50, 10, 20]$, illustrate the data sequence after first partitioning (the pivot element in its correct location) of Quick sort algorithm? (10%)

9. Refer to following un-balance binary tree to balance it by AVL algorithm. (10%)



10. Refer to following weighted graph to

A. Find the Adjacency matrix? (5%)

B. Depict minimum cost spanning tree starting node A by Kruskal's algorithm or Prim's algorithm? (5%)

