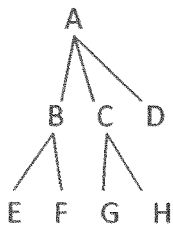


招生學年度	101	招生類別	碩士在職專班
系所班別	資訊工程學系碩士在職專班、電機工程學系碩士在職專班		
科目	計算機概論		
注意事項	本考科可使用掌上型計算機		

1. (15%) Describe the architecture of a modern computer.
2. (20%) Consider an array List[N], where there are N numbers in the array. Write a program or flow chart to compute the maximum, sum and average of these numbers in the array.
3. (10%) Define bit, byte, database, proxy and cache memory.
4. (10%) Consider the tree as follows, where A is the root.  
(5%) (a). Indicate the path traversed by depth-first search for G in the tree.  
(5%) (b). Indicate the path traversed by breadth-first search for G in the tree.



5. (10%) Explain "class" and "object" and give an example for a class and its objects.
6. (10%) Compare to array, what are the advantages and disadvantages of linked list?
7. (10%) Compute the value of the prefix expression:  $-a/*b+cde$ , where  $a=10$ ,  $b=4$ ,  $c=2$ ,  $d=1$  and  $e=3$ .
8. (15%) List five factors that affect a computer's processing speed.