

PROBLEM 1D Evaluation - Design**Max mark: 2**

Let **Course** be an array of type *struct course* where each element has 4 fields:

- *code*: stores the course code
- *name*: stores the course name
- *adjList*: stores the pointer to the *head* of adjacency list corresponds to the course.
- *NoPreRequisites*: stores number of direct prerequisites for the course.

getMaxPreRequisitesCourse

1. For i from 0 to n-1 // n is the number of courses
 - 1.1. count=0
 - 1.2. For j from 0 to n-1 and i!=j
 - 1.2.1. temp=Course[j].adjList
 - 1.2.2. while(temp!=null)
 - 1.2.2.1. if temp.code=Course[i].code
 - 1.2.2.1.1. count=count+1
 - 1.2.2.1.2. break
 - 1.2.2.2. temp=temp.next
 - 1.3. Course[i].NoPreRequisites=count (step 1: 1 mark)
2. Max_Value=0
3. For i in range 0 to n-1
 - 3.1. If(Max_Value<Course[i].NoPreRequisites)
 - 3.1.1. Max_Value=Course[i]. NoPreRequisites (steps 2,3: 0.5 mark)
4. For i in range 0 to n-1
 - 4.1. If(Course[i].NoPreRequisites = Max_Value)
 - 4.1.1. Print(Course[i].code) (step 5: 0.5 mark)

[Other correct algorithms may be given full marks.]