

**PROBLEM 1C Evaluation - Design**

**Max mark: 2**

1. Let *n* be number of courses in array *Course*.
  2. Declare an additional field *count* to course struct
  3. Max\_Value=0
  4. For i in range 0 to n-1
    - 4.1. Course[i].count=getNumNodes(Course[i].regList)
    - 4.2. If(Max\_Value<Course[i].count)
      - 4.2.1. Max\_Value=Course[i].count
  5. For i in range 0 to n-1
    - 5.1. If(Course[i].count=Max\_Value)
      - 5.1.1. Print(Course[i].code )
- (steps 1-4: 1 mark)
- (step 5: 0.5 mark)

**getNumNodes(x)**

1. If x= NULL
    - 1.1. Return 0
  2. Else
    - 2.1. Return 1+ getNumNodes(x.left) + getNumNodes(x.right)
- (steps 1-2: 0.5 mark)