**Day wise Schedule of MCA, 1st Semester**

|  |  |
| --- | --- |
| Student No | Total Marks (Out of 200) |
| 1 | 123 |
| 2 | 90 |
| 3 | 110 |
|  |  |
| 10 | 180 |

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Course Name: Programming in C Language [4110102]

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| **Unit – 2** | | |
| **Day – 11** | | |
| **Lec #** | **Topics to be covered :** | **Assignments :** |
| 1 | Why Array? One Dimensional Array, Declaration of a One- dimensional Array, Initializing Integer Array, Accessing Array Elements, Operations on Array | **Essential Assignment**   1. Write a program in C to enter marks of 10 students and print their marks. Find highest marks. (Hint : Use array) 2. Create an array (marks) of 10 elements. Assign initial value between 0 to 100 to each element. Write a code to perform summation of array elements of given range. User will give the range. For example:   Enter Starting range (0 is first element) : 3 Enter Ending range (9 is the last element) : 6   1. Create three arrays (subject1\_marks, subject2\_ marks & total\_marks) of 10 elements (10 students. Student ith refers as (i+1) index in the array) each. Initialize each element of subject1\_marks and subject2\_marks to any value between (0 to 100). Each element of total\_marks must be initialized to 0.   Calculation of total\_marks of ith student must be done as addition of subject1\_marks and subject2\_marks of ith index. Print the table with No & total marks as follows:   1. Write a program to perform bubble sort using 1-D Array of 6 elements. Initialize each element with value between 0 to 100. |
| 2 | Internal Representation of Array in C, Working with One- Dimensional Array |

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| Student No | Total Marks (Out of 200) | Result |
| 1 | 123 | Pass |
| 2 | 90 | Fail |
| 3 | 110 | Fail |
|  |  |  |
| 10 | 180 | Pass |

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|  |  | Hint: Bubble Sort is the sorting algorithm that works by repeatedly swapping the adjacent elements if they are in wrong order.)  **Desirable Assignment**   1. In the Program No- 3 from the Essential Assignment, process the students result. Passing criteria for each subject is 50%. If student pass in both the subjects, then he/she must be declared as pass. Print the output in the following format: 2. Write a program to read an array of 8 integer numbers. Array may have duplicate values. Search the number in array and display "ELEMENT FOUND" or ELEMENT DOES NOT FOUND ". Take this number from the user. If more than one occurrence is there in the array, then display all the relevant indexes. 3. Create and initialize an array of integers with following values: 10, 30, 10, 33, 11, 10, 40, 30, 10, 40, 90, 100, 30, 10,20   Process the above array and print the output in the following format: | | | | |
|  | Number | Total Number of Repetition | Relevant Index |  |
| 10 | 5 | 0,2,5,8,14 |
| 30 |  |  |

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|  |  |  | 33 |  |  |  |
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| **MCQ Questions** | | | | | | |
| 1 | What is the dimension of the below C Array.? int nos []={1,3,5,7};  ANS: | | | | | |
| 2 | What is the output of following C Program.? void main()  {  int a[];  a[4] = {1,2,3,4};  printf("%d", a[0]);  }   1. 1 2. 2 3. 4 4. Compiler error ANS: | | | | | |
| 3 | What is the output of following C program? void main()  {  float marks[3] = {90.5, 92.5, 96.5}; | | | | | |

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int a=0; while(a<3)

{

printf("%.2f,", marks[a]); a++;

}

}

A) 90.5 92.5 96.5

B) 90.50 92.50 96.50

C) 0.00 0.00 0.00

D)Compiler Error ANS: