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

Course Name: Programming in C Language [4110102]

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| **Unit – 4** | | |
| **Day – 17 & 18** | | |
| **Lec #** | **Topics to be covered :** | **Assignments :** |
| 1 | Nested structures, structures with functions and structures with pointers. Union and its operations, enumerated data type, bit field. (Array within the structure and Array of  structures already covered in day 18) | **Essential Assignment (**Write the function/s as and when required**)**   1. Create a structure of student (id, name, age, mobile\_number, marks [6]). Create array of structure for 5 elements. Take the data from the user for each student and print the same. 2. In the above program, create the structure inside structure with name “name (fname, mname, lname)”. Modify the above program-1 so that it takes data from the user for each student depending upon modification done, print the students details. 3. Write a program to copy content of current source file in to other file with name “duplicate.c”. 4. Write a program to find the occurrence of given word from the given file. 5. Write a program to append the content of first file to the second file. 6. Write a program that will open a file and show how many characters are there in the file. Then it will ask the user 1) position 2) forward / backward direction, and show content of that character depending upon his choice. For example   Number of characters in the files are : 100  Enter the position (Beginning=1, Current=2, End=3) : 1 Enter the forward (+) / backward (-) direction : -3 Character is : p  **Desirable Assignment (**Write the function/s as and when required**)**   1. In the programNo-1 of Essential Assignment, print the student details with the highest age. 2. Modify the programNo-1 of Essential list so that while coping the file, it will remove the keywords. Following is the list of the keywords. |
| 2 | Declaration of file pointer, opening a file, closing a file various modes to open the file, Handling file functions for reading data from files**–** fscanf (), fgetw (), fgets (), fgetc (), fread(), Handling file functions for writing data into files- **f**printf, fputw, fputs(), fputc(), fwrite(), detecting the end of the file **–** what is  EOF and feof() function |
| 3 | Types of the files – binary and text files. types of access to the file – Sequential and Random access, difference between both, how to read and write data in both the cases, fseek(), ftell(), rewind(), fgetpos(), fsetpos()) |

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