ADVANCED COLLEGE OF ENGINEERING AND MANAGEMENT

FINAL INTERNAL ASSESMENT

BEI & BEL

Time: 1.5 hrs. Full Marks: 40 Pass Marks: 16

Subject: Computer Programming

ATTEMPT ANY QUESTIONS AND SOLVE FOR 40 MARKS ONLY.

1. What is an algorithm and how does it differ from pseudo-code? Develop algorithm and draw flowchart to find the sum of the digits entered by the user. [2+3+3]
2. Define conditional operator with its syntax.WAP to find the middle number among three numbers using conditional operator and IF-ELSE operator. [2+3+3]
3. Explain break and continue statement with its flowchart.WAP to calculate cosine series upto n terms, where n is entered by user. [4+4]
4. What are the differences between global and local function, variables and data types, & (Ampersand Operator) and * operators used in C-Programming? Write a function that will evaluate a floating point number to be raised to an integer power using recursion (i.e. $y=m^n$).
   [4+4]
5. What are overflow and underflow errors in the context of array? WAP to read an m*n square matrix, find minimum integer value of the matrix, replace the diagonal elements by the minimum element and display the resultant matrix using pointer. [2+6]
6. Differentiate between structure and array. Write a program to create structure "Time" with members hrs , min and sec. Read current time and previous time using structure and display the difference between current time and previous time using function. [2+6]
7.
   a. What are the advantages of using pointers in C-Programming? [2]
   b. WAP to continuously read name, age and salary of workers and write it into file named “employee.txt” until user confirms to end. Then copy the file contents to a new file and display the record onto the screen. Details of workers must be represented by a structure. [8]

8. WAP to print the following pattern: [6]