

Total No. of Questions : 12]

SEAT No. :

P1009

[4661]-11

[Total No. of Pages : 2

F.Y. M.C.A. (Engg.)

PROBLEM SOLVING AND PROGRAMMING IN C

(Semester - I) (510901) (2008 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume suitable data, if necessary.*

SECTION - I

- Q1)** a) What is flow chart? Why use flow charts? Explain with example basic notation of flow charts. [6]
- b) Devise an algorithm to convert given binary number to its decimal integer. [6]

OR

- Q2)** a) Write an algorithm to reverse the digit of an integer number. [6]
- b) Explain: Complexity of algorithm with example. [6]

- Q3)** a) Define a concept of function. Explain call by value & call by reference. [6]
- b) Write C program to calculate largest of given n elements without using array. [6]

OR

- Q4)** a) Write syntax for for, while & do while loop. Distinguish between while & do while loop. [6]
- b) Write a program to read in 10 numbers & compute the average, maximum & minimum values. [6]

- Q5)** a) What is array? Explain different type of array with example. [6]
- b) Write a C program to find the length of string & remove the string using user defined function? [5]

OR

- Q6)** a) List out any six string library functions. [6]
- b) Write C program to multiply two matrices. [5]

P.T.O.

SECTION - II

- Q7)** a) Write a short note on following with suitable example. [6]
i) Pointer and array.
ii) Constant Pointer.
b) Write C function (using pointer Parameter) that reverse the elements of given array. [6]

OR

- Q8)** a) Explain any two library functions for dynamic memory allocation with example. [5]
b) Write a C program to sort given array of string using pointer notation. [7]

- Q9)** a) What are differences between array & structures? [6]
b) What is the use of typedef? Explain with example. [6]

OR

- Q10)** a) Explain self - referential structure and its applications. [6]
b) Write a simple database program that will store a person's details such as age, date of birth, address and display it in well format. [6]

- Q11)** a) Write a program to read the contents of text file & copy them into another text file in lower case. [6]
b) Explain redirection with example. [5]

OR

- Q12)** a) Explain fgetc () & fputc () function with example. [6]
b) Differentiate between low level and high level I/O. [5]

