P.G.D.C.A. Semester – 1

Paper – 102: Computer Programming and Problem Solving Using 'C' (New & Old)

Time: 3 Hours APRIL-2016 CODE-9625 **Total Marks: 100**

Q.1 **(a)** What is an Algorithm? Compare Algorithm and Flowchart. Write an algorithm to find entered number is prime or not. **[10]**

(b) Define:(1) Translator (2) Assembler (3) Linker (4) Tokens (5) Variable **[10]**

OR

Q.1 **(a)** What is flowchart? Draw basic symbols of flowchart and state its usage. Draw a flowchart to find entered number is prime or not. **[10]**

(b) Draw and Explain basic structure of 'c' program by taking suitable example. **[10]**

Q.2 **(a)** Explain switch..case with syntax and example. Compare it with if..else. **[10]**

(b) List out various categories of Operator. Explain conditional operator and incremental operator with example. **[10]**

OR

Q.2 **(a)** What do you mean by loop? List out various looping construct. Explain any one with syntax and example. **[10]**

(b) Differentiate: 1.Variable v/s constant 2.Break v/s Continue 3. While v/s do..While loop **[10]**

Q.3 **(a)** What is an array? Discuss 1-D and 2-D with memory representation and example. **[10]**

(b) Write a Program to sort a 1-D array having 10 elements into ascending order and Print it **[10]**

OR

Q.3 **(a)** What is string? Explain any five string related functions with syntax and example. **[10]**

(b) Write a program to find minimum number from 1-D array having 10 elements and its position. **[10]**

Q.4 (a) What is purpose of storage class? Explain various storage class in detail [10]

(b) What do you mean by recursion? Explain with example. [10]

OR

Q.4 (a) What do you mean by function? What are the advantages of UDF? Explain various categories of function with example. [10]

(b) What is pointer? How to declare it? Explain the concept of 'array and pointer' by giving suitable example [10]

Q.5 (a) What do you mean by structure? Explain the concept of 'array of structure'. [10]

(b) What is file? List out various types of it. Explain fopen( ), fseek( ) and fwrite( ). [10]

OR

Q.5 (a) Define structure and Union. Compare structure and Union. Explain nesting of structure. [10]

(b) Explain following functions with syntax and example: [10]

(1) fclose( ) (2) ftell( ) (3) fread( ) (4) fgets( ) (5) fputc( )
