AU–191

B.C.A. (Part-I) Semester-II Examination
ADVANCED C
Paper—2ST2

Time : Three Hours]   [Maximum Marks : 60

Note :— (1) Figures to right indicate full marks.

(2) Illustrate your answers with the help of suitable example wherever necessary.

1. (a) Explain with example the following string functions :

(i) strlwr( )

(ii) strcmp( )

(iii) strrev( )   6

(b) Explain with example how strings can be handled using char array.   6

OR

2. (a) Write a program to read two strings from user. Calculate the length of two strings using strlen( ) and concatenate them using strcat( ). Also calculate the length of the concatenated string and display it.   6

(b) Explain how strings can be manipulated using arrays of pointers with suitable example.   6

3. (a) Explain the concept of Local and Global variables with suitable examples.   6

(b) Explain function prototype, function definition and function calling by using an example of function that adds two numbers.   6

OR

4. (a) What are different storage classes in C ? Write features of each class.   6

(b) Explain the following :

(i) Function call by value

(ii) Function call by pointer

(iii) Recursion.   6

5. (a) Explain how structures are defined using suitable example. How can we calculate memory size of structure ? How are structure members accessed ? 6

   (b) Define union. State its declaration syntax and explain how its members are accessed using suitable example. 6

OR

6. (a) Compare union with structures using suitable example. 6

   (b) What is array of structures ? Explain using a program which receives data for 3 books and prints it on screen. Use the following data :

   (i) Name of book

   (ii) Cost of book

   (iii) No. of pages in book

   (iv) Name of author. 6

7. (a) Explain different file opening modes available in C. 6

   (b) Explain following functions :

   (i) fscanf( )

   (ii) fgetc( )

   (iii) fwrite( ) 6

OR

8. (a) Write a program to enter following data in a file :

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   using fprintf function. Read same data using fscanf function. 6

   (b) Explain following functions :

   (i) getw( )

   (ii) putw( )

   (iii) fputs( ) 6

9. (a) Explain how memory can be allocated using malloc( ) in C with suitable example. 6

   (b) Explain line function in C. Write a graphics program to draw a triangle on screen using line function three times. 6

OR

10. (a) Explain dynamic memory allocation with the help of suitable example. 6

    (b) Explain the following functions :
       (i) fseek( )
       (ii) ftell( )
       (iii) frewind( ) 6