

B.E. (Information Technology) Third Semester (C.B.S.)
Programming Logic & Design Using C

P. Pages : 2

Time : Three Hours



NRT/KS/19/3328

Max. Marks : 80

- Notes :
1. Solve Question 1 OR Questions No. 2.
 2. Solve Question 3 OR Questions No. 4.
 3. Solve Question 5 OR Questions No. 6.
 4. Solve Question 7 OR Questions No. 8.
 5. Solve Question 9 OR Questions No. 10.
 6. Solve Question 11 OR Questions No. 12.
 7. Assume suitable data whenever necessary.
 8. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Explain the rules for constructing Integer constant with example. 5
b) Explain following statements with proper syntax and example. 8
 - i) For
 - ii) Switch
 - iii) Do-while
 - iv) While.
- OR**
2. a) What are the different operators in C? Explain with example. 7
b) Write a program to display Fibonacci series upto n items. 6
3. a) What are different types of functions? Write a C program using function to find the factorial of given number. 8
b) Explain call by value and call by reference with suitable example. 6
- OR**
4. a) Write a C program for multiplication of 3x3 matrix. 6
b) Explain storage classes in 'C' with suitable example. 8
5. a) Explain the difference between structure and union with suitable example. 6
b) Explain various string functions with example of each. 7
- OR**
6. a) Write detailed note on the following: 9
 - i) Array of structure
 - ii) Pointer to structure
 - iii) Union of structure.
b) Write a C program to read a string and convert into lowercase. 4
7. a) Explain following file handling functions. 5
 - i) Fread ()
 - ii) Fseek ()
 - iii) Fprintf ()
 - iv) Fwrite ()
 - v) Fscanf ()

- b) Explain what is command line arguments and illustrate with an example: 5
- c) Write the difference between text file and binary file. 4
- OR**
8. a) Write notes on 9
- i) Enumerated Data Types
- ii) Type casting
- iii) Bitwise operators.
- b) Write a C program to merge two files and get the contents into a new file. Assume suitable names for files. 5
9. a) Explain following graphics functions with example. 6
- i) Textmode () ii) Putimage ()
- iii) Getimage () iv) Imagesize ()
- v) Outtextxy ()
- b) Write a program using C graphics to print 5 concentric circles from the center of the screen. Fill the circles with two alternate colours. 7
- OR**
10. a) Explain dynamic memory allocation in detail. Explain the purpose of following functions. 9
- i) Calloc ()
- ii) Malloc ()
- iii) Free ()
- b) Differentiate between graphics mode and text mode. 4
11. a) Explain Terminate and stay resident programming. What are utilities of TSR. 8
- b) Explain different types of pointers. 5
- OR**
12. a) Explain different ROM-BIOS functions in detail. 5
- b) Write notes on **any two**. 8
- i) Dangling pointer.
- ii) NULL pointer
- iii) Array of pointer to string.
