



BRAINWARE UNIVERSITY

Course – BSc(CS)

Principle of Programming Language (BCSC 201)

(Semester – 2)

Time allotted: 3 Hours

Full Marks : 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Question)

10 x 1 = 10

Answer *any ten* of the following

1. Choose the correct alternative for the following:

- i) `for(i=0; ; i++);` will result in a
- | | |
|----------------------|-------------------|
| a) Compilation Error | b) Run Time Error |
| c) Infinite Loop | d) None of these |
- ii) `strcmp()` method is used to
- | | |
|----------------------------|-------------------------|
| a) Compare two strings | b) Count String length |
| c) Concatenate two strings | d) Not a valid Function |
- iii) If `p` is a integer pointer declared as `int *p;` and holding an address 1000, what will be the result of `p++`?
- | | |
|---------|----------------------|
| a) 1001 | b) 1002 |
| c) 1003 | d) Compilation Error |
- iv) Which of the following operator can be used to access value at address stored in a pointer variable?
- | | |
|------|-------|
| a) * | b) & |
| c) # | d) && |
- v) `union` keyword is used in C programming to create a
- | | |
|--------------|----------|
| a) Structure | b) Union |
| c) Pointer | d) Array |

Group – C

(Long Answer Type Question)

3 x 15 = 45

Answer *any three* of the following

7. a) What are the major differences between if-else and switch-case.
b) Create a structure named Student with the attributes as: Roll, name, Department, marks. Now write a C program to create an array obtain records of 5 students and find out the maximum and average marks of the students and finally display it. [5 + 10]
8. a) What is the difference between “Call by Value” and “Call by Reference”.
b) What is the difference between local and global variable.
c) Write a recursive function to compute factorial of a number. [5 + 3 + 7]
9. What is the difference between While loop and do-while loop? Create a menu driven program that will implement the following (a) create an array, (b) search element from this array. Proper validation check should be included.
10. Write short notes on any three of the following
A. Preprocessor Directives
B. strcmp() and strcat()
C. Actual and Formal arguments
D. Entry-controlled and Exit-controlled Loop [3 x 5]
11. What are the different FILE operation modes available in C? Write a program to copy the text content of a file into another file. [5 + 10]