Roll No…….. **Total No. of Printed Pages: [01]**

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BCA (Semester – 5th)

COMPUTER PROGRAMMING AND DATA STRUCTURE

Subject Code:BCSE0F91

Paper ID: [OE2160119]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consists of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consists of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

(a) What is a userdefined data type?
(b) Explain explicit typecasting.
(c) What is the use of a break statement?
(d) Define global variables.
(e) How is a program executed in Turbo C?
(f) What is a nested control structure?
(g) List various string functions.
(h) Give a brief note on the data structure.
(i) Write a syntax for creating a union.
(j) Define the expression with an example.

Section – B **(5 marks each)**

Q2. What do you mean by variables? Explain in detail.
Q3. How is the stack different from the queue?
Q4. Write a program to find the greater number among three numbers using nested if else.
Q5. Define the looping statement and differentiate between the while and the do-while loop.
Q6. What is an array? How these are declared and defined.

Section – C **(10 marks each)**

Q7. a) What do you mean by operators? Explain operator precedence and its associativity.
b) Explain the purposes of different standard library functions used in C.
Q8. a) What is the link list? How is the insertion operation performed on it?
b) Differentiate between structure and union in detail.
Q9. a) Describe the usage of pointers in C. Explain with suitable examples.
b) What is a high-level programming language? Write down its features.