2019/TDC/ODD/SEM/CSCGE/ CSCDSC–101T/182

TDC (CBCS) Odd Semester Exam., 2019

COMPUTER SCIENCE

(1st Semester)

Course No. : CSCGE/CSCDSC–101T

(Programming Fundamentals Using C/C++)

Full Marks : 50
Pass Marks : 20

Time : 3 hours

The figures in the margin indicate full marks for the questions

UNIT—I

1. Answer any *three* questions from the following : 1×3=3

   (a) Who was developed C++?

   (b) Define token.

   (c) What is the difference between '=' and '==' operator?

   (d) What do you mean by initialization of a variable?

(*Turn Over*)

2. (a) With a neat flowchart, explain if else statement.   2

Or

(b) State the difference between while loop and do while loop.

3. (a) Discuss the uses of break and continue statement with suitable example.   5

Or

(b) With a code segment, discuss the various parts of a C program.

UNIT—II

4. Answer any *three* questions as directed from the following :   1×3=3

(a) Void main() function is a _____ (user defined/inbuilt) function.

(Fill in the blank)

(b) Why array is called derived data type?

(c) Write down the general syntax of function prototype.

(d) How do you access a data member of a structure?

5. (a) What do you mean by actual argument and formal argument? Give example.   2

Or

(b) What are the benefits of using function?

6. (a) Compare and contrast structure and union.   5

Or

(b) Write a program which implements the concept of recursion function.

UNIT—III

7. Answer any *three* from the following questions :   1×3=3

(a) How do you declare a pointer variable?

(b) What is the purpose of 'malloc' function?

(c) Name any two preprocessor directives.

(d) What is macro? Give an example.

8. (a) With an example, explain pointer to pointer.   2

Or

(b) Differentiate between static and dynamic allocation.

9. *(a)* Discuss the various modes of opening a file.   5

Or

(b) Write a program for swapping of two numbers using passing pointers as function arguments.

UNIT—IV

10. Define any *three* from the following :   1×3=3

(a) Function overloading

(b) Parameterized constructor

(c) Scope resolution operator (::)

(d) Access specifier

11. *(a)* How do you define a member function of a class?   2

Or

(b) Write down the rules for declaring a constructor.

12. *(a)* Illustrate the concept of 'object a parameter' and 'returning object', with a code segment.   5

Or

(b) Write a program to implement the concept of constructor overloading.

UNIT—V

13. Answer any *three* from the following questions :   1×3=3

(a) Name two operators, which cannot be overloaded.

(b) Give an example of exception.

(c) How do you implement runtime polymorphism?

(d) In inheritance, what would be the order of constructor invocation?

14. *(a)* Discuss the need of operator overloading.   2

Or

(b) Write down the importance of virtual function.

15. *(a)* What is inheritance? Discuss the various forms of inheritance.   5

Or

(b) Write a program which overload '+' operator. And use this to calculate the sum of two complex numbers.

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