(6 pages)

Reg. No. : ....

Code No. : 41390 E Sub. Code : SMCS 21/
SMSE 21

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2019.

Second Semester

Computer Science/Software Engineering — Main

OBJECT ORIENTED PROGRAMMING IN C++

(For those who joined in July 2017 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. In C++, a function contained within a class is called as

    (a) Member function

    (b) An operator

    (c) A Class function

    (d) A method

2. _____ function specifies to the compiler that the function definition should be substituted.

    (a) Outside (b) Inline

    (c) Void (d) Virtual

3. A _____ constructor is used to declare and initialize the object from another object.

    (a) Default (b) Copy

    (c) Parameterized (d) Dynamic

4. A destructors is used to destroy the objects that have been created by a _____.

    (a) Object (b) Class

    (c) Function (d) Constructor

5. Which of the following operator can be overloaded?

    (a) >> (b) ? :

    (c) . (d) size of

6. A _____ class is one that inherits properties of a base class.

    (a) derived (b) super

    (c) single (d) multiple

7. A function declared in a base class that has no definition relative to the base class.

   (a) Virtual function

   (b) Friend function

   (c) Pure virtual function

   (d) Inline function

8. The pointer holds

   (a) Value of the variable

   (b) Address of the variable

   (c) Both (a) and (b)

   (d) None

9. The member functions fill ( ) belongs to ———— class.

   (a) In stream   (b) Istream

   (c) Ostream   (d) Iostream

10. When a file is opened in read or write mode the file pointer is set.

   (a) At the beginning of file

   (b) At the end of file

   (c) In the middle of file

   (d) None of the above

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) What is class? How does it accomplish data hiding?

              Or

   (b) Discuss the use of 'do.. while' with suitable examples.

12. (a) What is copy constructor? Explain with an example.

              Or

   (b) What is parameterized constructor? Explain.

13. (a) Explain :

     (i) Pure virtual functions

     (ii) Pointers.

              Or

   (b) What do you mean by operator overloading? Explain.

14. (a) Explain the uses of 'this' pointer in detail.

              Or

   (b) Develop a program in C++ to find the largest of any three numbers using a macro definition.

15. (a) Explain the working procedure of virtual functions.

Or

(b) Write a details about on templates.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Discuss about the characteristics of some OOP languages.

Or

(b) Describe the various control structures in C++ with suitable examples.

17. (a) Discuss the special characteristics of constructor functions.

Or

(b) Explain :

(i) Multiple constructor in a class

(ii) Destructors.

18. (a) Write a C++ programs which overloads the binary operators.

Or

(b) Explain the multiple inheritance and hierarchical inheritance.

19. (a) Explain about unformatted console I/O operations with examples.

Or

(b) What are 'Pointers'? Explain their use in C++ program.

20. (a) Explain :

(i) Opening and closing a file

(ii) File modes and pointers.

Or

(b) Explain about error handling during file operations.

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