(6 pages) **Reg. No. :** .....

**Code No. : 21278** **Sub. Code : SMCA 21**

B.C.A. (CBCS) DEGREE EXAMINATION, APRIL 2018.

Second Semester

Computer Application — Main

OBJECT ORIENTED PROGRAMMING WITH C++

(For those who joined in July 2017 onwards)

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL questions.

1. Which one of the following refers to putting together essential features without including background details?

   (a) abstraction

   (b) encapsulation

   (c) data hiding

   (d) inheritance

2. Which one of the following is the memory allocation operator?

   (a) Static (b) dynamic

   (c) reference (d) new

3. Ceil (4.6) = _____

   (a) 4 (b) 5

   (c) 4.6 (d) 5.6

4. Which one of the following is visible only within the class but its life time is the entire program

   (a) Reference variable (b) static variable

   (c) const (d) none of the above

5. Constructor cannot be inherited.

   (a) True (b) false

6. Which one of the following operator cannot be overloaded?

   (a) + (b) >>

   (c) ?: (d) –

7. Deriving a class from more than one base class is called as _____ inheritance.

   (a) Single (b) multilevel

   (c) multiple (d) hierarchical

8. The friend function and the member functions of a friend class can directly access the _____ data.

(a) Private

(b) Public

(c) private and public

(d) public and protected

9. The destination stream that receives output from the program is called the _____ stream

(a) Input (b) output

(c) i/O (d) all of the above

10. Which one of the following function gives the current position of the get pointer?

(a) Seekg( ) (b) seekp( )

(c) tellg( ) (d) tellp( )

SECTION B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Discuss in detail about applications of object oriented programming.

Or

(b) Discuss in detail about scope resolution operator with an example program.



12. (a) Explain in detail about call by reference with an example program.

Or

(b) Explain merits and demerits of friend function.

13. (a) Elucidate in detail about parameterized constructor with an example program.

Or

(b) Elucidate in detail about any two type conversion with an example program.

14. (a) Describe in detail about multiple inheritance with an example program.

Or

(b) Describe in detail about abstract class with an example.

15. (a) Analyze in detail about cin, cout, put( ) and get( ) with an example.

Or

(b) Analyze in detail about eof( ), fail( ), bad( ) and good( ) with an example.

SECTION C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Discuss the key concepts of object oriented programming.

Or

(b) Discuss in detail about memory management operator with an example program.

17. (a) Describe in detail about pass by value with an example program.

Or

(b) Describe in detail about static data member and static member function with an example.

18. (a) Illustrate dynamic constructor with an example program.

Or

(b) Illustrate overloading binary operator with an example program.



19. (a) Elucidate hierarchical inheritance with an example program.

Or

(b) Elucidate how would you use constructors in derived class with an example.

20. (a) Exemplify formatted I/O operations with an example program.

Or

(b) Exemplify command line arguments with an example program.

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