(6 pages)

Reg. No. : ....

Code No. : 20988   Sub. Code : GMCS 21/
                                            GMSE 21

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2016.

Second Semester

Computer Science — Main

OBJECT ORIENTED PROGRAMMING WITH C++

(For those who joined in July 2012 and afterwards)

Time : Three hours   Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. What does a class can hold?

    (a) data   (b) functions

    (c) both (a) and (b)   (d) none of the above

2. How many specifiers are present in access specifiers of a class?

    (a) 1   (b) 2

    (c) 3   (d) 4

3. A constructor is defined as LightBulb(int = 60);. The parameter is assigned to a field named watts. When you define an object as LightBulb oneBulb(90);, the watts variable will be set to ————

    (a) 0   (b) 90

    (c) 60   (d) 150

4. Whenever a class contains two constructors, the constructors are ————

    (a) default constructors

    (b) overloaded

    (c) destructors

    (d) static

5. An operator is overloaded with the help of a special function called an ————

    (a) Operator function

    (b) Operator overloading

    (c) Dot operator (.)

    (d) None of the above

6. An operator can be overloaded either using, ————

    (a) Member functions   (b) Friend functions

    (c) Both (a) and (b)   (d) Operator function

7. Depending on the access specifiers public, protected or private, a base class can be ————

(a) Publicly inherited

(b) Protectedly inherited

(c) Privately inherited

(d) All of the above

8. Like other variables, what else must be declared before using it in the program?

(a) Data types   (b) Literal variable

(c) An asterisk '*'   (d) Pointer variable

9. Which signal can be detected by using the function eof( )which is a member function of the ios class?

(a) end-of-file (EOF)

(b) streamsize gcount( )

(c) char title[30];

(d) ios::setfill('x');

10. The functions ———— also known as binary I/O functions are used to handle blocks of binary data

(a) read( )   (b) write( )

(c) both (a) and (b)   (d) get( ) and put( )

Page 3   Code No. : 20988

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Write short notes on Classes and objects.

Or

(b) Explain the special characteristics of static members.

12. (a) Discuss the dynamic initialization using constructors.

Or

(b) Write note on nested classes.

13. (a) Mention the rules for overloading operators using friend functions.

Or

(b) Write a C++ program to concatenate two string using operator overloading.

14. (a) How to access single dimensional array in C++?

Or

(b) What is meant by Wild pointers? Explain.

Page 4   Code No. : 20988

[P.T.O.]

15. (a) What is meant by manipulators?

Or

(b) Explain the sequential file handling operations.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Discuss the member variables and functions.

Or

(b) Write note on friend function.

17. (a) Explain about parameterized constructors.

Or

(b) Illustrate the rules for Destructors.

18. (a) Write a C++ program to add two complex numbers using operator overloading.

Or

(b) Discuss the hierarchical inheritance with an example.

19. (a) Write note on pointers to object and arrays of classes.

Or

(b) What is meant by pure virtual function? Explain.

20. (a) Explain the Random access file handling in C++.

Or

(b) Describe the manipulators with arguments.

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