

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2017**Third Semester****Vocational Course—C++ PROGRAMMING****(For the Vocational Subject : Computer Application of Model II Physics)****(2013 Admission onwards)****Time : Three Hours****Maximum Marks : 60****Part A (Short Answer Questions)***Answer all questions briefly.**Each question carries 1 mark.***Fill in the blanks using appropriate words :**

1. The maximum number that can be assigned to a float variable is _____.
2. A function which does not return any value is known as a _____ functions.
3. Private data of a class can be accessed by _____ member function.
4. A pointer variable can store the _____ of another variable.
5. _____ is a collection of same type of elements.
6. "isostream.h" is a _____ file.
7. A class that can be derived from more than one base class is _____ type inheritance.
8. A _____ function can have access to only other static members declared in the same class.

(8 × 1 = 8)**Part B (Brief Answer Questions)***Answer any six questions.**Each question carries 2 marks.*

9. What are the differences between = and == operators ?
10. What is switch structure ? Explain.
11. How are member functions of a class defined ?
12. Can a friend function be used to overload the assignment operator ? Explain why ?
13. What is public visibility mode in C++ ?

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14. Explain the need # include < graphics > ?
15. What is array initialization ? Explain, giving examples.
16. Explain how unary operator overloading is done ?
17. What are the differences between array and pointer ?
18. Distinguish between private and public inheritance ?

(6 × 2 = 12)

Part C (Problems/Short Essays)

Answer any four questions.

Each question carries 4 marks.

19. Write a program to read an integer number from the keyboard and test if it is odd.
20. In what order are the class constructors called when a derived class object is created ?
21. Distinguish between method overloading and operator overloading.
22. Write an example program to illustrate the use of an array of objects.
23. Explain the concept of pointers to objects.
24. How we can overload binary operators ?

(4 × 4 = 16)

Part D (Long Essays)

Answer any two questions.

Each question carries 12 marks.

25. A and B are two divisions of class in a college having m and n number of students. Their marks are stored in the order of their class numbers in arrays A and B respectively. Copy their marks in the array C and sort them in descending order and display the marks.
26. Write a function to compress any given string such that multiple blanks present in it are eliminated. The function should return the compressed string.
27. With sample programs, illustrate how graphics can be implemented in C++ ? How the shapes and colours can be designed ?
28. Explain how we can implement friend function, with suitable example program.

(2 × 12 = 24)