B. Voc. DEGREE EXAMINATION, OCTOBER, 2016

FIRST SEMESTER- CORE COURSE (SOFTWARE DEVELOPMENT)

VSD1S03TB - OBJECT ORIENTED PROGRAMMING IN C++

Time: Three Hours   **Maximum: 80 Marks**

PART A

I. Answer all questions (1 mark each)

1. What is polymorphism?

2. What is function prototype?

3. What do you mean by data hiding?

4. Why do we need the preprocessor directive #include<iostream>?

5. Define Encapsulation .

6. Find the error in the following statement **float average(x,y);**

7. Find the error in the following statement   **cout<<"x="x;**

8. Write an example C++ statement using delete operator.

9. What are objects?

10. Write the two memory management operators which are called as free store operators.

(10 x 1 = 10)

Part B

II. Answer any eight of the following in one or two sentences (2 marks each)

11. Compare private, public and protected data

12. Explain the control statements switch, while and do- while?

13. Explain the various types of constructors with syntax of each

14. Write the rules of naming variables in C++.

15. What are virtual functions? What are the advantages of a pure virtual function?

16. Explain static data members and static member functions in C++?

17. What do you mean by function overloading? Illustrate with an example

18. Write notes on Union datatype.

19. What do you mean by inline functions?

20. Write the properties of friend functions.

21. Explain the use of typecast operator with example.

22. Write a sample C++ program with class.

$(8\times2=16)$

Part C

III. Answer any six of the following in 50 words (4 marks each)

23. Discuss the use of *this* pointer with an example.

24. Write a program to overload ++ operator(both prefix and postfix)

25. Explain the different types of inheritance in C++.

26. Write a program to illustrate objects as function arguments.

27. What are the features and uses of pointers in C++.

28. Write a program to add two complex numbers using class.

29. What is conditional Operator in C++.

30. Describe with examples, the uses of enumeration data types.

31. Explain pointers to derived classes.

$(6\times4=24)$

Part D

IV. Answer any two of the following (15 marks each)

32. Explain the different data types available in C++ with suitable example.

33. Write a program to illustrate the use of operator overloading (binary + operator)

34. Write notes on the following a) Destructor   b) Instantiation

c) Copy constructor   d)   Array of Objects

28. Write a program to implement hierarchical inheritance.   (2 x 15 = 30)