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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

Answer all questions (1 mark each)

- 1. Define Object
- 2. What do you mean by data abstraction?
- 3. What do you mean by function prototype?
- 4. What is a Scope Resolution Operator?
- 5. Find the error and correct the statement long float x;
- 6. Name the visibility mode that makes a private member inheritable.
- 7. Write an example for embedded statement.
- 8. Write the statement x=x+10; using compound assignment operator.
- 9. Write a destructor function for class named Sample.
- 10. Write the statement that define an object OBJ2 and at the same time initialize it to the values of object OBJ2 using copy constructor.

 $(10 \times 1 = 10)$

Part B

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

- 11. What do you mean by multiple inheritance? Give the syntax
- 12. Explain the advantages and disadvantages of inline functions
- 13. Explain C++ class with an example
- 14. What are new and delete operators in C++
- 15. What is an abstract base class?
- 16. What is an operator function? Describe the syntax for an operator function

- 17. List all combinations of basic data type **int** with modifiers and give the size in bytes for each.
- 18. What do you mean by function overloading?
- 19. Explain the uses default arguments.
- 20. What are pointers? Write an example for declaring and initializing pointers.
- 21. Describe with examples the uses of enumeration data types.
- 22. Write the characteristics of constructor functions.

 $(8 \times 2 = 16)$

Part C

III. Answer any five of the following in 50 words (6 marks each)

- 23. Describe the use of static data members and static member function in C++ with an example
- 24. Explain the basic concepts of OOP Language
- 25. Explain the use of *this* pointer with an example
- 26. How can compile tile polymorphism achieved in C++
- 27. List the points to be remembered while overloading operators.
- 28. List the operators that can and that cannot be overloaded
- 29. Write a program to implement single inheritance
- 30. Explain the different types of constructors used in C++.
- 31. Write a program to show the different pointer arithmetic operations.

 $(6 \times 4 = 24)$

Part D

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

- 32. What is inheritance? Which are the different types of inheritance? Write a program to illustrate multilevel inheritance in C++
- 33. Write a program to overload + operator as concatenating operator with strings
- 34. What are friend functions? Explain with an example.
- 35. Write a program illustrating the use of multiple constructors in a class.

 $(2 \times 15 = 30)$