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(Pages : 2)

Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2018

Third Semester

Vocational Course—C++ PROGRAMMING

(For the Vocational Subject : Computer Application of Model II—Physics)

[2013—2016 Admissions]

Time : Three Hours

Maximum Marks : 60

Part A

Answer **all** *questions briefly.*
Each question carries 1 *mark.*

1. C++ is an object oriented programming ————.
2. When a program is executed, the ———— interact by sending messages to one another.
3. In fact objects are ———— of the type class.
4. The concept of ———— provides the idea of reusability.
5. The static member variables must be defined ———— the class.
6. The mechanism of deriving a new class from an old one is called ————.
7. Operator ———— is also known as compile time polymorphism.
8. A private member of a class cannot be ———— either in public mode or in private mode.

(8 × 1 = 8)

Part B

Answer any **six** *questions.*
Each question carries 2 *marks.*

9. What is the difference between an object and a class ?
10. What is inheritance ? Explain.
11. What is an in-line function ?
12. What is meant by base address of an array ?
13. How is array different from structure ?
14. What is an abstract class ? Explain.
15. Define a base class. How is it different from derived classes ?
16. What are the use of pointers ?

Turn over

17. List the characteristics of friend function.

18. What is meant by overload assignment operator ?

(6 × 2 = 12)

Part C

Answer any **four** *questions.*
Each question carries 4 *marks.*

19. Bring out arrays as class members.

20. Describe overloading unary operators.

21. What are the different forms of inheritance ? Give an example for each.

22. Briefly explain class hierarchies.

23. Discuss on pointers and function arguments.

24. Give an account on overload copy constructor.

(4 × 4 = 16)

Part D

Answer any **two** *questions.*
Each question carries 12 *marks.*

25. Define two classes *polar* and *rectangle* to represent points in the polar and rectangle systems. Use conversion routines to convert from one system to the other.

26. Write a program to read to check the equality of two matrices.

27. Discuss the different ways by which we can access public member functions of an object. Explain with an example, how you would create space for an array of objects using pointers.

28. Bring out the salient features of graphics in C++ with illustrations.

(2 × 12 = 24)