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BCMCAV 154

**Credit Based Second Semester B.Com. Degree
Examination, September 2022
(2018-19 and Earlier Batches)
COMPUTER APPLICATIONS (Vocational)
Paper – III : Object Oriented Programming Using C++**

Time : 3 Hours

Max. Marks : 80

PART – A

1. Answer **any ten** of the following questions : **(10×2=20)**

- a) Mention the rules to be followed for declaring identifier.
- b) Give the syntax of switch statement.
- c) What are the uses of void data type in C++ ?
- d) What do you mean by pass by reference ?
- e) Explain the concept of data hiding in C++ with an example.
- f) What are constant member functions ?
- g) Give any two features of constructors.
- h) What is the use of keyword operator in C++ ? Give example.
- i) What is destructor ? How do you define it ?
- j) What is the difference between overloading and overriding ?
- k) Define base class and Derived class.
- l) What is polymorphism ? What are its types ?

PART – B

Answer **any one full** questions from **each** Unit of Part – B.

Unit – I

2. a) Explain basic data types supported by C++. **5**
- b) Explain any two loop control structures with syntax and example. **6**
- c) Explain increment and decrement operators with example. **4**

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- 3. a) Write a note on different types of expressions in C++. 5
- b) Explain various bitwise operators available in C++. 6
- c) Explain with example the concept of reference variable in function call. 4

Unit – II

- 4. a) Explain how to pass arrays to functions with a suitable example. 5
- b) Explain concept of default arguments with example. Also mention the rules to be followed while assigning default values. 5
- c) What is friend function ? What are the merits and demerits of using friend function ? 5
- 5. a) Explain how to pass arrays to functions with a suitable example. 5
- b) Explain different ways of defining member functions of a class with an example. 5
- c) Write a note on objects as functional arguments. 5

Unit – III

- 6. a) What is meant by constructor overloading ? Explain with code example. 5
- b) How do you overload a unary operator using friend function ? Explain with example. 5
- c) Explain basic to class type conversion with an example. 5
- 7. a) Explain one class another class conversion with an example. 5
- b) How do you overload a binary operator using member function ? Explain with example. 5
- c) Write a program to generate fibonacci numbers by overloading ++ operator. 5

Unit – IV

- 8. a) Explain multi level inheritance with an example. 5
- b) Explain how pointers to derived class are used in a program with an example. 5
- c) What are the basic rules for function to be virtual ? 5
- 9. a) Explain how pointer to objects is used in a C++ program. 5
- b) Explain public mode of inheritance with example. 5
- c) Write a note on virtual constructors and destructors. 5