

9. Explain the following briefly with C++ examples :

- (a) String functions and their uses 6
- (b) Resource capture and release 10

Roll No.

97675

BCA 4th Semester

Examination – July, 2022

OBJECT ORIENTED DESIGN & PROGRAMMING

Paper : BCA-208

Time : Three hours]

[Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Question No. 1 is *compulsory*. Attempt *four* more questions selecting *one* question from each Unit. All questions carry equal marks.

1. Answer the following questions briefly : $2 \times 8 = 16$

- (a) What is class and object ?
- (b) List data types in C++.
- (c) Define pointer.

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- (d) What is object copying ?
- (e) Discuss static function.
- (f) Explain namespace.
- (g) Describe derived class with an example.
- (h) What is private inheritance ?

UNIT - I

- 2. (a) What is recursion ? How is it useful and used ?
Discuss in details with examples. 6
- (b) Explain polymorphism, its types and advantages
with examples briefly. 10
- 3. Explain the following briefly with suitable C++
examples : 8
 - (a) Object-Oriented approach and its advantages. 8
 - (b) Arrays, Structure, Union and their merits and
demerits. 8

UNIT - II

- 4. Explain constructor, its types, uses and advantages
with suitable C++ examples. 16

- 5. Describe the following with C++ examples :
 - (a) References, private, public and their uses 8
 - (b) Destructors, their uses and advantages 8

UNIT - III

- 6. (a) What is virtual function ? How is it used in C++ ?
Explain its advantages with C++ examples. 8
- (b) Explain public and private inheritance with C++
examples. 8
- 7. Explain the following with C++ examples :
 - (a) Ambiguity in multiple inheritance 8
 - (b) Overriding and its uses and advantages 8

UNIT - IV

- 8. (a) What is template class ? Explain its uses and
advantages with C++ examples. 8
- (b) Explain unexpected exception and its uses with
suitable C++ examples. 8