

**B.Tech. – VIEP – COMPUTER SCIENCE AND
ENGINEERING (BTCSVI)**

Term-End Examination

00605

June, 2019

BICS-003 : OBJECT ORIENTED PROGRAMMING

Time : 3 hours

Maximum Marks : 70

***Note :** Attempt any **seven** questions. All questions carry equal marks.*

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1. (a) What is an object and a class ? Explain the key concept of OOPs. 5
 - (b) How are data and function organized in an object oriented program ? 5
 2. (a) Differentiate between C and C++. 5
 - (b) Explain the concept of dynamic memory allocation in C++. 5
 3. Write a C++ program to swap the value of three variables without using the temporary variable. 10
 4. (a) What is a constructor ? Explain the characteristics of a constructor. 5
 - (b) What is copy constructor ? Explain with an example. 5

5. Create a class Matrix and overload +, - operator to perform addition and subtraction of two matrices. 10
6. Distinguish between the following : 5+5
- (a) Data abstraction and Data encapsulation
 - (b) Dynamic binding and Message passing
7. Explain the concept of stream class. How are stream classes classified ? Also discuss stream manipulators. 10
8. (a) What do you mean by exception handling ? Describe the role of keywords try, catch, and throw. 5
- (b) Explain different types of inheritance. 5
9. (a) What is dynamic initialization ? Is it possible in C ? 5
- (b) What are inline functions ? Explain with the help of suitable example. 5
10. Write short notes on any **two** of the following : 2×5=10
- (a) Virtual Function
 - (b) Access Specifier in C++
 - (c) Stack Unwinding
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