

POKHARA UNIVERSITY

Level: Bachelor Semester: Fall Year : 2020
Programme: BE Full Marks: 100
Course: Object Oriented Programming in C++ Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What are the key features of Object Oriented Programming? Explain with example. 7
b) Friend function is not the member function of a class. Justify the statement with suitable program. 8
2. a) Why do you use inline function? Explain with a suitable example. 7
b) What are default and parameterized constructors? Write a program to illustrate parameterized constructor. 8
3. a) What is copy constructor in C++? Is it possible to pass object as argument in copy constructor? Explain with suitable program. 7
b) How inheritance does supports reusability? What are the different forms of inheritance? Explain with example. 8
4. a) Why is protected access specifier used in C++? Explain with example different types of inheritance with examples. 7
b) Write a program to overload multiplication operator (*) showing the multiplication of two objects. 8
5. a) What is virtual function? When do we make a function virtual? Explain with appropriate example. 8
b) Create a template function swap() and use it to swap two integers, two floating point data and two characters. 7
6. a) Differentiate between i) interface and implementation and ii) coupling and cohesion. 7
b) What is CRC card? Why is it necessary in programming? Prepare a CRC card for library management system 8

7. Write short notes on: (**Any two**)
- a) Dynamic memory allocation
 - b) This pointer
 - c) Template class.

2×5