



Tribhuvan University
Faculty of Humanities & Social Sciences
OFFICE OF THE DEAN
2023

Bachelor in Computer Applications
Course Title: OOP in Java
Code No: CACS 204
Semester: III

Full Marks: 60
Pass Marks: 24
Time: 3 hours
Batch: 2021

Candidates are required to answer the questions in their own words as far as possible.

Group B

Attempt any SIX questions.

[6×5 = 30]

2. What are java Buzzwords? Write a java program to find simple interest. Use command line argument to take input. [1+4]
3. What are use of super keyword? Write a java program to create base class **Fruit** which has **name**, **taste** and **size** as its attributes and method called **eat()** which describe name and its taste. Inherit the same in two other class **Apple** and **Orange** and override the **eat()** method to represent each fruit taste. [1+4]
4. What is difference between **String** and **StringBuffer** class? Write a java program to identify the input string is palindrome or not? [2+3]
5. Why we need file handling in java? Write java program to read file into a variable and then write a variable's content into another file. [1+4]
6. What is the purpose of **valueOf()** method in Wrapper classes? Write a java program to generate random integer, double and bytes. [1+4]
7. What is internal frames? Write a java program that display two internal frame within some parent frame. [1+4]
8. What is **JDBC**? Write java program to connect database **College** and display all student information (Roll, Name, Address and Program) from **Student** table. [1+4]

Group C

Attempt any TWO questions.

[2×10 = 20]

9. What is Constructor overloading? Write a class **Distance** containing private variables **feet** of type **int** and **inches** of type **int**, suitable constructors, and three methods **addDistance**, **subtractDistance** and **displayDistance** for adding ,subtracting and display distance objects. Write a separate class **MyDistance** containing main method to create, add, subtract and display distance objects [2+8]
10. a) What is difference between checked and unchecked exception? Write a java program that will read college name from keyboard and display it on screen. The program should throw an exception when length of college name is more than 50. [1+4]
b) What are methods used for inter-thread communication? Write a java program to create two threads so that one thread prints even number and other thread prints odd number between 100 and 200. [1+4]
11. What is **MVC** design pattern? Write a GUI program using swing components to calculate sum and difference of two numbers. Use two text fields for input and pre-built dialog box for output. Your program should display sum if Add button and difference if subtract button is clicked. [2+8]