



Tribhuvan University
Faculty of Humanities & Social Sciences
OFFICE OF THE DEAN
2021

Bachelor in Computer Applications
Course Title: OOP in Java
Code No: CACS204
Semester: III

Full Marks: 60
Pass Marks: 24
Time: 3 hours
Batch: 2020

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 is jagged array? Write a java program to initialize and display jagged array element with sum of each row. [1+4]
3. What are uses of this keyword? Write a java program to implement method overloading concept. [2+3]
4. Why inheritance is needed in java? How will you implement multiple inheritance using interface? Explain with program. [1+4]
5. What is multithreading? Explain with program, how you will create thread by implementing runnable interface and extending Thread class. [1+2+2]
6. What are exception handling keyword in java? Write java program to illustrate the concept of NullPointerException and NumberFormatException. [1+2+2]
7. What is serialization? Write a java program to write three student information (Roll, Name, Address, College) into file student.txt and display the student information whose address is Jhapa. [1+4]
8. What is Wrapper class? Explain with program, how will you use iterator and comparator in collection objects? [1+2+2]

Group C

Attempt any TWO questions.

[2×10 = 20]

9. What is difference between class and interface in java? Create a java class **Time** with three attribute **hours, minutes, and seconds**. Use appropriate constructors to initialize instance variable. Use methods to display time in **HH:MM:SS** format, add and subtract two time object. Implement the class to add, subtract and display time object. [3+7]
10. How AWT is differing from Swing? Write a GUI program using components to find factorial and cube of number. Use TextField for giving input and Label for output. The program should display factorial if user press mouse on result button and cube if user release mouse from result button. [4+6]
11. What is JDBC? Write a java program to connect database **Company** and insert 5 employee record (Eid, Ename, Salary, Department) in **Employee** table and display the employee record who's Department is "Sales". [2+4+4]