

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD

B. Tech. III Semester (CSE & IT) End Semester Exam (Odd Semester) 2018-19
Object Oriented Programming (CS-13105)

Max. Marks: 60

Time: 180 Minutes

Note: Attempt any five questions. All programs must be written in JAVA. All part of a question must be answered in a sequence.

Q1. (a) What do you mean by object oriented programming concept? Write down the key features of a language to be object oriented. Also, discuss why java is more popular than other programming languages. [6]

(b) You are required to count the number of 1's in binary number using shift (left and right) operators. First you count using left shift followed by right shift starting with binary number obtained at the end of left shift counting. Also, draw the flow chart for the same and verify the result obtained with both operators. [6]

Q2. (a) Find the output of a following program. In case program is not executable, list out the errors, correct the program and then give output. [4]

```
public class Test {  
    public static void main(String[] args) {  
        try {  
            System.out.printf("1");  
            int data = 5/ 0;  
        }  
        catch(ArithmeticException e) {  
            Throwable obj = new Throwable("Sample");  
            try {  
                throw obj;  
            }  
            catch(Throwable e1) {  
                System.out.printf("8");  
            }  
        }  
        finally {  
            System.out.printf("3");  
        }  
        System.out.printf("4");  
    }  
}
```

(b) You are required to create three buttons named "RED", "GREEN" and "BLUE" with one compulsory "Exit" button. The background color should be change according to click on respective button (button click is an event. Action should be performed according to this event).

[4]

- Q3. (c) What is JDBC Connection? Write down the steps involved in connecting java program with mysql database. Explore this with suitable example. [4]
- (a) You are required to write classes for student details (name, registration number, fathers name), address (current address, permanent address, contact number, email Id) using inheritance concept where address is child class. [4]
- (b) You are required to read a given paragraph consisting of words from input file and Convert this paragraph to tokens (word) to be stored in array of string in sorted ascending order where sorted array does not have duplicate words. Finally array of string to be stored in output file. [5]
- (c) Write the differences between overriding and overloading? Explain it in context of static method used in Java. [3]
- Q4. (a) Write down the differences between final and finally keywords used in JAVA. Give examples in support of your answer. [4]
- (b) Write a program that sort an integer array using merge sort and draw the flow chart for the same. Further, merge two sorted integer arrays which are in descending order into ascending order sorted array. Justify the correctness of program using suitable example. [8]
- Q5. (a) Create three buttons, First two buttons should have numeric values (e.g. "50" and "100") and third button should be "submit" button. When click on submit button then addition of both values should be displayed on a label. [4]
- (b) Convert integer decimal number to binary number. You are required to take input from a given input file and store results in output file. [4]
- (c) Write a java program to implement the inheritance. The methods and variables (name, return type, arguments passed) are same in child and parent classes. The main function is implemented in child class. You are required to call the constructor, methods & variables of parent class without making the object of parent class. [4]
- Q6. Explain the any six of the following terms in context of JAVA. [12]
- Re-throwing exception.
 - Multiple inheritances.
 - One to many relationship among objects of multiple classes.
 - Protected access.
 - AWT.
 - Mark and Sweep Garbage collection
 - Super keyword

Good Luck

CSED, MNPT Allahabad, Allahabad
B Tech III Semester (CSE & IT), End-semester Exam, November 2016
Technical Writing (CS1305)
Time Three hours **Total marks 60**

NOTE: Question paper printed on both sides. Attempt any six questions. Questions carry equal weight. Feel free to assume any missing data but categorically mention it under the heading 'Assumptions for this question'.

1. (a) What do you mean by the technical writing? Discuss the features of technical writing.
(b) What are the kinds of details which matter in technical writing? Explain each of them.
2. (a) Arrange the parts of most research papers in the order in which they typically appear in a technical research paper and briefly describe each part.
 - Introduction
 - Abstract
 - Background And Motivation
 - Title
 - Results and discussion
 - Proposed Work
 - Keywords
 - Conclusion
 - Reference(b) Answer the following questions:
 - i. How to compute impact factor of a journal? Explain with examples.
 - ii. Convert the following sentences from Passive Voice to Active Voice:
 - A. George had repaired many cars before he received his mechanics license.
 - B. I ran the obstacle course in record time.
 - C. Larry generously donated money to the homeless shelter.
 - D. The director will give you instructions.
 - E. A beautiful dinner is going to be made by Sally tonight.
3. (a) You are the *Sports Secretary* of your institute. Write a report for your institute magazine on the recent victory of your institute in the inter college cricket tournament, organized by your institute. Your report should be around 200 words.
(b) Imagine that your friend likes to spend the weekend by watching a film or reading a book. He needs your suggestions related to the choice of book or film. Write a letter to your friend about a book/film that you enjoyed much. In your letter, explain the reasons for your choice and discuss both the strengths and weakness of that book/film.

4. (a) How to write a good research paper and how to deal with the editor? Discuss Hourglass Model of writing research paper.
- (b) Draw the process flow diagram of publishing a research paper in a conference and a journal.
5. (a) Write the preamble and any other four points of the short version of Software Engineering Code of Ethics and Professional Practices as provided by ACM and IEEE.
- (b) What is plagiarism? What are the corrective actions of corresponding levels at IEEE?
6. (a) There are six stages of the listening process: Receiving, Interpreting, Remembering, Evaluating, Responding and Acting. Explain any five of them?
- (b) You have bought a new refrigerator. What are the instructions that will be given in the user manual to save power. Write any eight instructions.
7. Give the corresponding L^AT_EX source code for this question paper upto question no. 2 followed by the declaration placed at the end of the paper.

Declaration

I value Examination Ethics and practice it.

Signature

Name and Registration No.