

2023

COMPUTER SCIENCE — HONOURS — PRACTICAL

Paper : CC-12P

(OOPS Lab Using Java)

Full Marks : 30

Marks Distribution

Source Code	: 15
Output	: 05
Sessional	: 04
Viva-voce	: 06

SET-3

Answer *any one* question.

1. Write a Java program to find the areas of Square and Rectangle by deriving them from Shape Class.
2. Design a Java program for managing student grades. Users can input student grades, calculate averages, and generate progress reports using methods like `inputGrades (String studentName, double grades)`, `calculateAverage (String studentName)`, and `generateProgressReport (String studentName)`. The program outputs information on grade input, average calculation, and progress report generation, ensuring effective management of student performance. The format of the Progress Report is as follows :

Student Name : [Student's Name]

Grades :

Subject 1 : [Grade]

Subject 2 : [Grade]

...

Subject N : [Grade]

Average Grade : [Calculated Average]

Comments / Feedback : [Optional comments or feedback on the student's performance]

(2)

Z(5th Sm.)-Computer Sc.-H/Pr./CC-12P/CBCS/Set-3

3. Create a Java program to create and display a singly linked list. Also write a function to reverse the list.

 4. Write a program in Java to accept two numbers. Check whether the two numbers are prime or not. Throw an Exception in the following cases :
 - (a) If the first number is negative.
 - (b) If the second number is equal to zero.

 5. Create a Java program that demonstrates file handling by reading and writing data to a text file. Users can input content, and the program writes it to a file. Subsequently, the program reads the content from the file and displays it.

 6. Create a Java program for an online food ordering system. Users can interact with the system by placing orders using methods like `placeOrder (String foodItem, int quantity)`, view the order summary with `viewOrderSummary()`, and make payments through `makePayment (double amount)`. The program outputs the order status, total cost, and payment confirmation, providing a convenient and efficient online food ordering experience.

 7. Create a Java program that performs division of two numbers while incorporating exception handling. Users are prompted to input the numerator and denominator. The program should handle potential exceptions such as division by zero and invalid input.
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