2024

COMPUTER SCIENCE — HONOURS — PRACTICAL

Paper : DSE-B-4P

(Advanced Java)

Full Marks : 30

The figures in the margin indicate full marks.

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

Set - 3

Marks Distribution

Experiment / Source Code	:	15
Output	:	05
Sessional	:	04
Viva voce	:	06

Answer *any one* question.

1. Write an application in JSP / SERVLET that shows a report or student details in a tabular format from the database table "Student (Roll, Name, Semester, Subject, Session)". This system will have filter option on 'Semester' and 'All' so that semesterwise reports can be generated.

2. Write a server side JSP / SERVLET program for checking twin prime numbers, accept two numbers from HTML file, handover the numbers to JSP / SERVLET file, process it and return the result.

3. Write an application in JSP / SERVLET that generates a bill for postpaid mobile connection. The inputs will be data_usage, call_minutes (Lcall : 2 mins.), sms, roaming_call_minutes and generates a bill calculating charges. The charge definition are given below :

   (a) Up to 120 mins. :   Free

       Rest   :   1.25/- per call

   (b) SMS charge   :   Up to 100 sms : Free

       Rest   :   1/- per sms

   (c) Roaming charge :   ₹ 3.50 per call.

   (d) Data charge   :   First 512 MB : Free

       Rest   :   1.50/- per 10 MB usage.

   (e) Tax   :   12% of total amount

   (f) Total amount   :   Call charge + data usage + sms charge + roaming charge + tax.

   Show the bill details of a user.

4. Write a JSP / SERVLET application for employee having information as follows : EName, Gender, Age, Salary, EID. Display the name of female employees who are 35 years old and earn more than ₹ 50,000 salary.

5. Write an application in JSP / SERVLET that implement login system in which the system saves password in cookies for specific users with expiry time of 2 hrs. So that user can login automatically using the password stored in cookies. After 2 hrs. this system expires and this login system is destroyed. Password should be at least 8 alpha-numeric value.

6. Write an application in JSP / SERVLET to maintain library management system. The application should store the following fields : B_name, Author_name, BookID, Number_of_copies. If new copies of a book arrive, the Number_of_copies should be updated accordingly. Additionally the application should be able to generate a report showing the No_of_copies for all books at any time.

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