TCET
DEPARTMENT OF INFORMATION TECHNOLOGY (IT)
Credit Based Grading Scheme(Revised - 2012) - University of Mumbai
CBGS-2012(R)

Estd. 2001

TCET/FRM/IP-02/10	Revision: B

Semester Plan
(Practical / Tutorials / Assignment)

Semester: **III**   Course: S.**E IT**   Batches: S.**E**

Subject: **Java Programming**   Class: S.**E IT- A**   Batch size: **20** Students

Laboratory faculty in charge: Lab. Assistant /Attendant:

(Lab Attendant   )

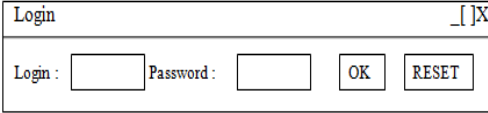Note: **Experiment planned as per University Curriculum**

Basic Experiments:

Sr. No.	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks
1	A) Write a Java program to display the default value of all primitive data types in Java. B) Write a Java program that prints all real solutions to the quadratic equation $ax^2+bx+c = 0$. Read in a, b, c and use the quadratic formula. If the discriminate b^2-4ac is negative, display a message stating that there are no real solutions.	24/7 25/7		
2	A) Write a java program to demonstrate String Functions B)Write a java program to count number of alphabets, digits, special symbols, blank spaces and words from the given sentence.	31/7 1/8		
3	A)Write a java program to demonstrate Constructors, Parameterized Constructors and Constructor Overloading B) Write a java programs to add n strings in a vector array. Input new string and check whether it is present in the vector. If it is present delete it otherwise add it to the vector.	7/8 8/8		

Design/ Development Experiments:

Sr. No.	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks
4	A) Design following methods to implement menu driven for following tasks. a) To find Factorial of a number b) To find X^Y c) To print n Fibonacci numbers d) To find reverse of number	14/8 8/8		
5	Design and implement Java Program which organize information of TCET using interface and inheritance	4/9 5/9		

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6	A) Write a Java Program to calculate the Result. Result should consist of name, seatno, date, center number and marks of semester three exam. Create a User Defined Exception class MarksOutOfBoundsException, If Entered marks of any subject is greater than 100 or less than 0, and then program should create a user defined Exception of type MarksOutOfBoundsException and must have a provision to handle it. B) Write java program to create a user defined Exception class known as PayOutOfBoundsException. Organization does not offer basic salary less than 8000. If entered salary is less than 8000 then program should create an Exception of Type PayOutOfBoundsException. Program should calculate gross salary by considering salary parameters such as DA, HRA, CA, TA, Professional tax, TDS, PF.. etc	11/9 12/9		
7	A)Write a java program to print first 20 prime numbers and 15 Fibonacci numbers by creating two child threads and also print the total time taken by each thread for the execution. B) Write java program to implement the concept of Thread Synchronization	18/9 19/9		
8	A)On Applet: Take a Login and Password from the user and display it on the third Text Field which appears only on clicking OK button and clear both the Text Fields on clicking RESET button Perform same using AWT and Swings as well. Login _[ ]X Login : [ ] Password : [ ] OK RESET	25/9 26/9		
9	Write a program to create a window with four text fields for the name, street, city and pincode with suitable labels. Also windows contain a button MyInfo. When the user types the name, his street, city and pincode and then clicks the button, the types details must appear in Arial Font with Size 32, Italics.	16/10 3/10		
Group Learning Activity:				
10	**Case Study on:** Case study on Socket Programming using Java (TCP&UDP)	16/10 3/10		
11	**Case Study on:** Case study on RMI (Remote Method Invocation)	11/9 12/9		
12	Mini Project: GUI for maintaining Telephone Directory.	21/10 21/10		

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Bridge courses Objective: Bridging of gaps with respect to prerequisites and industry skills or to carryout research in that particular field**. (24 Hrs / Semester / student)**

S.No.	Bridge courses/Technology	Duration (Week/hrs)	Modes of Learning	Recommended Sources
1.	**Prerequisite course:** Programming using C,C++	2 Weeks / 3 Hrs	Self Learning/ Revision	1. http://www.tutswing.com/cplusplus-home
2	**Advanced course:** Android Programming	12 Weeks / 2 Hrs	Self-Learning/ Revision	1. https://www.udacity.com/course/new-android-fundamentals--ud851 2. https://www.simplilearn.com/mobile-and-software-development/android-app-development-training

1. **Mini /Minor Projects Objective:** To get hands on experience to execute projects with respect to student choice in the following areas. **(30 Hrs / Semester / Student). (Total 120 Hrs)**

The areas are :
1. **Research** 2. **Core** 3. **Multidisciplinary** 4. **Application**

Major project : As per University Scheme

S.No	Project Title/Group Size		Class	Type / Project Hours		Modes of Learning		Reference	
1	**Authentication and Access Control**		SE	Mini		Project based Learning			
2	**XSS Detection in a Web Request and Response**		SE	Mini		Project based Learning			
	Planned	Completed		Planned	Completed		Planned	Completed
No. of Prac	**Basic Exp:** 03 **Design Base Exp**: 06 **Group Learning:** 02 **Bridge Course:**		No. of Assignments	03		No. of Tutorial	00	

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	02 **Minor Project:** 02							

DOSLNE:	DOSLE (engaged in some other dates):

Group activities are required to be added with the practical related to course to enhance the learning activity of the student in the course. Group activity includes: Group presentation, new experiment design, mini projects etc.

Note:
1. The practical plan date and completion date shall be in compliance. For any non-compliance reason(s) required to be stated in remark column.
2. Learning objective and outcome shall be clearly stated with each of experiments/ tutorials/ assignments and are required to be mapped at the end of the semester.
3. Entry for DOSLE (engaged on some other date) shall be done with proper mapping to DOSLNE.

Name & Signature of Faculty   Signature of HOD   Signature of Principal / Dean Academic

Date: Date: Date: