INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a Program to print all Prime numbers in an array of 'n' elements.
      (use command line arguments).   [12 Marks]

Q.2) Viva /Journal [notebook]   [3 Marks]

SLIP_1

G.E. SOCIETY'S
H.P.T ARTS AND R.Y.K SCIENCE COLLEGE, NASHIK
T. Y. B. SC. (COMPUTER SCIENCE)
LABORATORY COURSE-II (OOP using JAVA)
Practical course based on CS-359 (Semester V)

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to read the First Name and Last Name of a person, his weight and height using command line arguments. Calculate the BMI Index which is defined as the individual's body mass divided by the square of their height.
(Hint : BMI = Wts. In kgs / (ht)2)   [12 Marks]

Q.2) Viva /Journal [notebook]   [3 Marks]

SLIP_2

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to accept 'n' name of cities from the user and sort them in ascending
order.   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_3

G.E. SOCIETY'S
H.P.T ARTS AND R.Y.K SCIENCE COLLEGE, NASHIK
T. Y. B. SC. (COMPUTER SCIENCE)
LABORATORY COURSE-II (OOP using JAVA)
Practical course based on CS-359 (Semester V)

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program for multilevel inheritance such that Country is inherited from Continent.
State is inherited from Country. Display the place, State, Country and Continent.   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_4

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to display the Employee(Empid, Empname, Empdesignation, Empsal) information using toString()..   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_5

G.E. SOCIETY'S
H.P.T ARTS AND R.Y.K SCIENCE COLLEGE, NASHIK
T. Y. B. SC. (COMPUTER SCIENCE)
LABORATORY COURSE-II (OOP using JAVA)
Practical course based on CS-359 (Semester V)

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to accept a text file from user and display the contents of a file in reverse order and change its case.   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_6

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Create a class Sphere, to calculate the volume and surface area of sphere.
    (Hint : Surface area=4*3.14(r*r), Volume=(4/3)3.14(r*r*r))   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_7

G.E. SOCIETY'S
H.P.T ARTS AND R.Y.K SCIENCE COLLEGE, NASHIK
T. Y. B. SC. (COMPUTER SCIENCE)
LABORATORY COURSE-II (OOP using JAVA)
Practical course based on CS-359 (Semester V)

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Define a "Clock" class that does the following ;
    a. Accept Hours, Minutes and Seconds
    b. Check the validity of numbers
    c. Set the time to AM/PM mode
    Use the necessary constructors and methods to do the above task   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_8

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to find the cube of given number using functional interface   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_9

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Define an interface "Operation" which has method volume( ).Define a constant PI having a value 3.142 Create a class cylinder which implements this interface (members – radius, height). Create one object and calculate the volume.   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

G.E. SOCIETY'S
H.P.T ARTS AND R.Y.K SCIENCE COLLEGE, NASHIK
T. Y. B. SC. (COMPUTER SCIENCE)
LABORATORY COURSE-II (OOP using JAVA)
Practical course based on CS-359 (Semester V)

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to create parent class College(cno, cname, caddr) and derived class Department(dno, dname) from College. Write a necessary methods to display College details.

[12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_11

G.E. SOCIETY'S
H.P.T ARTS AND R.Y.K SCIENCE COLLEGE, NASHIK
T. Y. B. SC. (COMPUTER SCIENCE)
LABORATORY COURSE-II (OOP using JAVA)
Practical course based on CS-359 (Semester V)

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to accept a file name from command prompt, if the file exits then display number of words and lines in that file.   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_12

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to accept a number from the user, if number is zero then throw user defined exception "Number is 0" otherwise check whether no is prime or not (Use static keyword).

[12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_13

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Accept the names of two files and copy the contents of the first to the second. First file having Book name and Author name in file.

[12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_14

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to find the Square of given number using function interface.

[12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

]

SLIP_15

G.E. SOCIETY'S
H.P.T ARTS AND R.Y.K SCIENCE COLLEGE, NASHIK
T. Y. B. SC. (COMPUTER SCIENCE)
LABORATORY COURSE-II (OOP using JAVA)
Practical course based on CS-359 (Semester V)

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Design a Super class Customer (name, phone-number). Derive a class Depositor(accno , balance) from Customer. Again, derive a class Borrower (loan-no, loan-amt) from Depositor. Write necessary member functions to read and display the details of 'n' customers.

[12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_16

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to accept the two dimensional array from user and display sum of its diagonal
elements.   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_17

G.E. SOCIETY'S
H.P.T ARTS AND R.Y.K SCIENCE COLLEGE, NASHIK
T. Y. B. SC. (COMPUTER SCIENCE)
LABORATORY COURSE-II (OOP using JAVA)
Practical course based on CS-359 (Semester V)

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Define a class MyDate(Day, Month, year) with methods to accept and display a MyDateobject.
Accept date as dd,mm,yyyy. Throw user defined exception "InvalidDateException" if the date
is invalid.   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_18

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program to create an abstract class named Shape that contains two integers and an empty method named printArea(). Provide three classes named Rectangle, Triangle and Circle such that each one of the classes extends the class Shape. Each one of the classes contain only the method printArea() that prints the area of the given shape. (use method overriding).

[12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_19

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Define a class MyNumber having one private int data member. Write a default constructor to initialize it to 0 and another constructor to initialize it to a value (Use this). Write methods isNegative, isPositive, isZero, isOdd, isEven. Create an object in main.Use command line arguments to pass a value to the Object

[12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_20

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Create an abstract class 'Bank' with an abstract method 'getBalance'. Rs.100, Rs.150 and
Rs.200 are deposited in banks A, B and C respectively. 'BankA', 'BankB' and 'BankC'
are subclasses of class 'Bank', each having a method named 'getBalance'. Call this method
by creating an object of each of the three classes.

[12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_21

G.E. SOCIETY'S
H.P.T ARTS AND R.Y.K SCIENCE COLLEGE, NASHIK
T. Y. B. SC. (COMPUTER SCIENCE)
LABORATORY COURSE-II (OOP using JAVA)
Practical course based on CS-359 (Semester V)

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–20234**

Q.1) Create a class Student(rollno, name ,class, per), to read student information from the console
and display them (Using BufferedReader class)

[12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_22

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Define a Item class (item_number, item_name, item_price). Define a default and parameterized constructor. Keep a count of objects created. Create objects using parameterized constructor and display the object count after each object is created.(Use static member and method). Also display the contents of each object.

[12 Marks]

Q.2) Viva/ Journal [notebook]   [3 Marks]

SLIP_23

G.E. SOCIETY'S
H.P.T ARTS AND R.Y.K SCIENCE COLLEGE, NASHIK
T. Y. B. SC. (COMPUTER SCIENCE)
LABORATORY COURSE-II (OOP using JAVA)
Practical course based on CS-359 (Semester V)

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Define an Employee class with suitable attributes having getSalary() method, which returns salary withdrawn by a particular employee. Write a class Manager which extends a class Employee, override the getSalary() method, which will return salary of manager by adding traveling allowance, house rent allowance etc..   [12 Marks]

Q.2) Viva / Journal [notebook]   [3 Marks]

SLIP_24

INTERNAL PRACTICAL EXAM   **Academic Year: 2023–2024**

Q.1) Write a program that reads on file name from the user, then displays information about
whether the file exists, whether the file is readable, whether the file is writable, the type of file and the length of
the file in bytes.   [12 Marks]

Q.2) Viva/Journal [notebook]   [3 Marks]

SLIP_25