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INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

B.Tech III Semester End Examinations (Supplementary) - January, 2019

Regulation: IARE – R16

OBJECT ORIENTED PROGRAMMING THROUGH JAVA

Time: 3 Hours

(CSE)

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

- (a) Discuss the working and meaning of the “static” modifier with example and explain static variable and static methods with an example program. [7M]

(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. [7M]
- (a) Describe the various operators used in Java with their classifications. Explain left shift and right shift operators with suitable examples. [7M]

(b) Write a Java program to implement method overloading and constructor overloading. [7M]

UNIT – II

- (a) Java supports various ways to control access to members of a class. Explain. [7M]

(b) Write a Java program to create an abstract class named Shape that contains two integers and an empty method named print Area (). Provide three classes named Rectangle, Triangle and Circle such that each one of the classes extends the class Shape. Each one of the classes contains only the method print Area () that prints the area of the given shape. [7M]
- (a) “Interface variables are static and final by default in Java” - Support this statement with proper explanation. [7M]

(b) Write a program that creates a user interface to perform integer division. The user enters two numbers in the text fields, Num1 and Num2. The division of Num1 and Num2 is displayed in the Result field when the Divide button is clicked. If Num1 and Num2 were not integers, the program would throw a Number Format Exception. If Num2 were zero, the program would throw an Arithmetic Exception Display the exception in a message dialog box. [7M]

UNIT – III

- (a) What is an Exception? Explain the exception hierarchy and how to throw, catch and handle Exceptions with example. [7M]

(b) Write a Java program for sorting a given list of names in ascending order. [7M]

6. (a) Define and differentiate multiprocessing and multithreading. [7M]
(b) Write a Java program that illustrates creating and using your own exceptions. [7M]

UNIT – IV

7. (a) List various JDBC drivers available with brief explanation. [7M]
(b) Explain steps involved in connecting to database with Java application. [7M]
8. (a) Write a Java program to read a text file then count and display no. of lines, words in it. [7M]
(b) Write a Java program to check the given file is a directory and find the name of the file by using file class. [7M]

UNIT – V

9. (a) Design an applet that display human face. What is the difference between applets and applications. [7M]
(b) Develop an applet that receives an integer in one text field and computes its factorial value and returns it in another text field, when the button named compute is clicked. [7M]
10. (a) Compare and contrast Swing and Abstract Window Toolkit(AWT) in Java. [7M]
(b) Write a Java program with swing components button, text field, check box and list box. [7M]

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