

LOVELY PROFESSIONAL UNIVERSITY

Academic Task No. 1

School: SCA

Faculty of: LFTS

Course Title: PROGRAMMING IN JAVA

Course Code: CAP615

Max. Marks: 30

Date of Allotment: 17th Feb. 2022

Last Date of Submission: 25th Feb. 2022

Important Guidelines:

1. All questions in this Academic Task are compulsory.
2. It is mandatory to attempt all questions of the assignment in your own handwriting on A4 size sheets/pages with a blue color ink pen. Any other mode of attempt (typed or printed codes or table) except hand written/drawn will not be accepted/considered as valid submission(s) under any circumstances.
3. Every attempted sheet/page should carry clear details of student such as Name, Registration number, Roll number, Question number and Page number. The page numbers should be written clearly on the bottom of every attempted sheet in a prescribed format as: for page 1; **Page 1 of 4**, for page 2; **Page 2 of 4**, for page 3; **Page 3 of 4** and for page 4; **Page 4 of 4**, in case your assignment/document is of 4 pages.
4. After attempting the answer(s), student needs to take photograph of each of these answer sheets/pages and needs to convert the jpeg format images into a sequential single pdf format document (can be done with many free online available converters).
5. This PDF file should be uploaded onto the UMS interface on or before the last date of the submission.
6. Refrain from indulging into plagiarism as copy cases will be marked zero
7. For every program it is mandatory to give proper documentation.

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SET-1

Q1: Define and differentiate java with C++ on any five features. [10 Marks]

Q2: Define Local variable, Static variable and the Instance variable with the help of a suitable example. Also define the role of 'public static void main (String args [])' in Java. [10 Marks]

Q4. Analyze the difference between 1D and 2D array in Java. [10 Marks]

SET-2

Q1: Why Java is known as object-oriented programming. Define the features of object-oriented programming in detail. [10 Marks]

Q2: Suppose you have string "hello". How many ways you can create this string object? Analyze with code. Also define Autoboxing and Unboxing feature in Java. [10 Marks]

Q4: An 'if condition' can be used in many ways. Explain all of these ways with the help of suitable example code. [10 Marks]

SET-3

Q1: Analyze the difference between for loop and advance for loop. How advance for loop is used in 2D array? Write one example. [10 Marks]

Q2: With the help of example define Encapsulation features in Java. [10 Marks]

Q3: Define and differentiate the following pairs:

(a) the logical && and || operators

(b) a break and a continue statement [10 Marks]

SET-4

Q1: "Various string methods are used for different tasks of string manipulation" Define these methods with the help of example. [10 Marks]

Q2: In which type of application, we can use the 2-D array? Analyze with an example. [10 Marks]

Q3: Define and differentiate between:

(a) the logical and relational operators

(b) a while statement and a do while statement [10 Marks]

SET-5

Q1: Differentiate between String, StringBuffer and StringBuilder classes? Also, define how can you find the location of the last occurrence of 'a' in the string "Java Programming"? [10 Marks]

Q2: Define different scopes of variables in Java. Also define the concept of String pool in Java. [10 Marks]

Q4: Which type of variables used in a switch statement? Analyze those variables with the help of example. [10 Marks]

SET-6

Q1: Define any five features of Java Language and compare with C, C++ programming language. [10 Marks]

Q2: An 'if condition' can be used in many ways. Explain all of these ways with the help of suitable example code. [10 Marks]

Q3: "2-dimensional arrays can be created in two ways" Justify your answer with the help of example. [10 Marks]

SET-7

Q1: Analyze the difference between for loop and advance for loop. How advance for loop is used in 2D array? Also write one example for the same. [10 Marks]

Q2: Various string methods are used for different tasks of string manipulation. Define these methods with the help of example. [10 Marks]

Q3: With the help of example define Encapsulation features in Java. [10 Marks]

SET-8

Q1: Differentiate between String, StringBuffer and StringBuilder classes? Also, define how can you find the location of the last occurrence of 'a' in the string "Java Programming"? [10 Marks]

Q2: In which type of application, we can use the 2-D array? Analyze with an example. [10 Marks]

Q3: Define different scopes of variables in Java. And also define the concept of String pool in Java. [10 Marks]

SET-9

Q1: What is the use of Interfaces? Explain with the help of a suitable example. [10 Marks]

Q2: Which type of variables used in a switch statement? Analyze those variables with the help of example. [10 Marks]

Q3: "2-dimensional arrays can be created in two ways" Justify your answer with the help of example. [10 Marks]

SET - Allocation

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