Practical: Programming in Java Lab   **Course:** B.Sc.(P) Computer Science

Semester: IV   **Unique Paper Code**: 42343410

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Assignment 1: Abhishek Nagar (AB-301)	**Total 25 marks**
Q1. Write and explain the steps to compute the area of a circle, rectangle and a square using method overloading.	20
Q2. Explain the general form of a class	2.5
Q3. Explain what are the uses of a final keyword.	2.5

Assignment 2: Aditya Goyal (AB-302)	**Total 25 marks**
Q1. Write and explain the steps to create an array of 10 integers. Accept values from the user in that array. Input another number from the user and find out how many numbers are equal to the number passed, how many are greater and how many are less than the number passed.	20
Q2. Explain what is charAt() method in Java.	2.5
Q3. Explain what is the difference between String and StringBuffer in Java.	2.5

Assignment 3: Amit Kumar (AB-304)	**Total 25 marks**
Q1. Write and explain the steps that will prompt the user for a list of 5 prices. Compute the average of the prices and find out all the prices that are higher than the calculated average.	20
Q2. Explain does java uses pointers? If yes, how? If no, why?	2.5
Q3. Explain the scope and life line of variables	2.5

Assignment 4: Anjali Sharma (AB-307)	**Total 25 marks**
Q1. Write and explain the steps to input N numbers in an array and print out the Armstrong numbers from the set.	20
Q2. Explain what is the difference between a class and an object.	2.5
Q3. What is abstraction in Java? How many different ways are there to achieve abstraction?	2.5

Assignment 5: Aryan Rathi (AB-309)   **Total 25 marks**

Q1.   Write and explain the steps to input the elements of matrices from user and perform the   20
       addition of two matrices

Q2.   Explain what is an object and how it is created in Java.   2.5

Q3.   Explain the difference between compile time and run time polymorphism.   2.5

Assignment 6: Atul Tripathi (AB-310)   **Total 25 marks**

Q1.   Write and explain the steps to input the elements of matrices from user and perform the   20
       multiplication of two matrices.

Q2.   Explain what are the rule for method overloading in Java.   2.5

Q3.   Explain operator precedence and associativity in Java   2.5

Assignment 7: Deepanshi Saini (AB-311)   **Total 25 Marks**

Q1.   Write and explain the steps to input the elements of a matrix from user and perform the   20
       transpose of a matrices.

Q2.   Explain how many different ways to pass an argument to a method.   2.5

Q3.   Explain what are the differences between Heap and Stack Memory in Java?   2.5

Assignment 8: Devesh Yadav (AB-312)   **Total 25 marks**

Q1.   Write and explain the step to find the largest of n natural numbers.   20

Q2.   Explain public static void main(String args[ ]) in Java.   2.5

Q3.   Explain what are the main concepts in OOPs.   2.5

Assignment 9: Ghanshyam Verma (AB-315)   **Total 25 marks**

Q1.   Write and explain the steps to print the sum and product of digits of an Integer and reverse   20
       the Integer.

Q2.   Explain the difference between a local variable and an instance variables.   2.5

Q3.   Explain the difference between break and continue with suitable examples   2.5

Assignment 10: Hitesh Yadav(AB-318)　　　　　　　　　　　Total 25 marks

Q1.	Write and explain the step to generate a Fibonacci series.	20
Q2.	Draw the diagram of JVM architecture and explain in short.	2.5
Q3.	Explain the for-each loop in Java with suitable example.	2.5

Assignment 11: Jasveer Singh (AB-320)　　　　　　　　　　Total 25 marks

Q1.	Write and explain the step to compute the factorial of a given integer.	20
Q2.	Explain what is garbage collection in Java.	2.5
Q3.	Explain the difference between Procedure Oriented Programming and Object Oriented Programming.	2.5

Assignment 12: KM Parul Agarwal (AB-323)　　　　　　　　Total 25 marks

Q1.	Write and explain the step to check whether the given string is palindrome or not.	20
Q2.	Explain the different ways to declare and initialize a 2-D array in Java.	2.5
Q3.	Explain how bytecode and platform independence interlinked in Java.	2.5

Assignment 13: Madhu Yadav (AB-326)　　　　　　　　　　Total 25 marks

Q1.	Write and explain the steps to compute the area of a circle, rectangle and a square using method overloading.	20
Q2.	Explain the difference between implicit default constructor and explicit default constructor.	2.5
Q3.	Explain the difference between C++ and Java.	2.5

Assignment 14: Neerdhi Goswami (ZO-329)　　　　　　　　Total 25 marks

Q1.	Write and explain the steps to create an array of 10 integers. Accept values from the user in that array. Input another number from the user and find out how many numbers are equal to the number passed, how many are greater and how many are less than the number passed.	20
Q2.	Explain how to search an element in a 2-D array	2.5
Q3.	Explain how memory management works in Java.	2.5

Assignment 15: Nirmal Mor(AB-330)   **Total 25 marks**

Q1. Write and explain the steps that will prompt the user for a list of 5 prices. Compute the   20
     average of the prices and find out all the prices that are higher than the calculated average.

Q2. Explain how many iteration statements are there in Java.   2.5

Q3. Explain what is the difference between method overloading and method overriding.   2.5

Assignment 16: Sahil (AB-334)   **Total 25 marks**

Q1. Write and explain the steps to input N numbers in an array and print out the Armstrong   20
     numbers from the set.

Q2. Explain JDK, JVM, and JRE.   2.5

Q3. Explain how many types of application can be developed using Java.   2.5

Assignment 17: Sumit Kumar (AB-340)   **Total 25 marks**

Q1. Write and explain the steps to input the elements of matrices from user and perform the   20
     addition of two matrices

Q2. Explain what is widening and narrowing conversions in Java   2.5

Q3. Explain how Java is platform independent   2.5

Assignment 18: Tarun Pandey (AB-341)   **Total 25 marks**

Q1. Write and explain the steps to input the elements of matrices from user and perform the   20
     multiplication of two matrices.

Q2. Explain the the difference between >>= and <<= with suitable examples.   2.5

Q3. What are the primitive type and their sizes in Java   2.5

Assignment 19: Sugandh (AB-345)   **Total 25 marks**

Q1. Write and explain the steps to input the elements of a matrix from user and perform the   20
     transpose of a matrices.

Q2. What do you think the following fragment does?   2.5

     Box b1 = new Box( );

     Box b2 = b1;

     // ...

     b1 = null

Q3. Explain the constructor overloading with suitable example.   2.5

Assignment 20: Saniya Shamsi (AB-346)   **Total 25 marks**

Q1.   Write and explain the step to find the largest of n natural numbers.   20

Q2.   Explain the platforms/editions of Java with their scope/use.   2.5

Q.3   Explain how enumerated types work.   2.5

Assignment 21: Sahdev Battan (AB-348)   **Total 25 marks**

Q1.   Write and explain the steps to print the sum and product of digits of an Integer and reverse   20
the Integer.

Q2.   Explain the working of compareTo(String other) method with suitable example.   2.5

Q3.   Explain the difference between next() and nextLine() method of Scanner class.   2.5

Assignment 22: Sushant Sharma (AB-354)   **Total 25 marks**

Q1.   Write and explain the step to generate a Fibonacci series.   20

Q2.   Explain the use of command-line parameters.   2.5

Q3.   Explain what is a ragged array with a suitable example   2.5

Assignment 23: Akash Sharma (AB-356)   **Total 25 marks**

Q1.   Write and explain the step to check whether the given string is palindrome or not.   20

Q2.   Explain different relationships between classes.   2.5

Q.3   Explain in short what are predefined classes.   2.5