

<b>Name:</b>	 <b>UPES</b> UNIVERSITY WITH A PURPOSE
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, May 2019**

**Course: Advance Programming using Java**

**Program: B.Tech CSE All IBM Branches**

**Course Code: CSEG2010**

**Semester: IV**

**Time 03 hrs.**

**Max. Marks: 100**

**SECTION A**

S. No.		Marks	CO
Q.1	What is the use of final keyword in java?	4	CO1
Q.2	Prepared Statements are faster than Statements in java. Why?	4	CO5
Q.3	Write a Java Program to find the frequency of each element in the array.	4	CO1
Q.4	What are the advantages of platform independent languages? Explain how Java is platform independent.	4	CO1
Q.5	What is the difference between checked and unchecked exception?	4	CO3

**SECTION B**

Q .6	Explain java package hierarchy, What are three ways to access one package from another package. Explain any one with java code.	10	CO3
Q.7	Differentiate run time polymorphism and compile time polymorphism with examples.	10	CO2
Q.8	WAP that have three threads named “Producing”, “Marketing” and “Consuming”. Make these threads synchronized in the order Producing-Marketing-Consuming only. Display the item numbers that is a shared resource and Produced, Marketed and then Consumed by above threads respectively. <b>OR</b> Explain all methods like creating, blocking, running, stopping and suspending a thread used in multithreading?	10	CO4
Q.9	Explain the following methods with example: (a) String trim() (b) String concat(String str) (c) String IgnoreCase( ) (d) String isEmpty( ) (e) String toLowerCase()	10	CO4

**SECTION-C**

Q.10	Create database to store the record of inventory in a store indicating the serial number, name, company, category and number of items along with price of item. Enter the records in the data base table using jdbc driver connection. <b>OR</b>	20	CO5
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	<p>Design a Java program that carries out banking operations on customers account. The concept of banking is characterized by customers and their account balances. The program must also keep a repository of customers account. Your program should be able to:</p> <ol style="list-style-type: none"> <li>Store the customer's record in database.</li> <li>Make deposits.</li> <li>Make withdrawals.</li> <li>Be able to update/remove an account from the database.</li> </ol>		
Q.11	<p>Write the HTML and Java Servlet code for the following Page:</p> <div data-bbox="217 596 1029 842" style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Enter Name <input style="width: 150px; height: 20px;" type="text"/></p> <p style="text-align: center;"><input style="width: 100px; height: 20px; background-color: #cccccc;" type="button" value="Add"/></p> </div> <p style="text-align: center;">Emp.html</p> <p>The HTML page will take name of employee as input from user one by one and Servlet code will store at least ten Employees in an ArrayList. Display this List of Employees in alphabetical order on another web page.</p>	<b>20</b>	<b>CO5 CO4</b>

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**SECTION A**

S. No.		Marks	CO
Q.1	JVM is a platform dependent (True/False). Justify your answer.	4	CO1
Q.2	How many ways that we can view a result set?	4	CO5
Q.3	Write a Java Program to print the elements of an array in reverse order.	4	CO1
Q.4	Describe with a flowchart how various java tools are used in the application development.	4	CO1
Q.5	How can we implement multiple inheritance in java?	4	CO3

**SECTION B**

Q.6	What is exception handling? How multiple exceptions are caught in a single program? WAP to demonstrate the use of custom exception.	10	CO3
Q.7	Create a class with one Integer instance variable. Initialize the variable and show the utility of constructor overloading using: a) Default Constructor    b) Parametrized Constructor	10	CO2
Q.8	Discuss the role of wait, notify and notifyAll methods in java. Also, suggest the reason behind putting these methods in Object class but not in Thread class.  <b>OR</b> Write a Java program for creating four threads to perform the following operations: i) Getting n numbers as input ii) Printing the even numbers iii) Printing the odd numbers iv) Computing the average.	10	CO4
Q.9	Explain the following methods with example: a) boolean isEmpty() b) String substring(int beginIndex) c) String intern() d) String trim() e) String toUpperCase(Locale l)	10	CO4

**SECTION-C**

Q.10	Create database to store the record of inventory in a store indicating the serial number, name, company, category and number of items along with price of item. Enter the records in the data base table using jdbc driver connection.	20	CO5
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	<b>OR</b>		
	<p>Design a Java program that carries out banking operations on customers account. The concept of banking is characterized by customers and their account balances. The program must also keep a repository of customers account. Your program should be able to:</p> <ul style="list-style-type: none"><li>a) Store the customer's record in database.</li><li>b) Make deposits.</li><li>c) Make withdrawals.</li><li>d) Be able to update/remove an account from the database.</li></ul>		
Q.11	<p>Write a JSP code that accept a paragraph as a string format from the user, Write servlet that use the Map framework and find out the frequency of each word in this paragraph, display it on another web page.</p>	<b>20</b>	<b>CO4 CO5</b>