

Hall Ticket Number:

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Code No. : 16147 (I) N/O

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

B.E. VI-Semester Main & Backlog Examinations, May/June-2023

Basics of JAVA Programming (OE-IV)

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	Explain the benefits of object oriented programming	2	1	1	1,2
2.	Why Java is platform independent?	2	1	1	1,2
3.	What are the types of inheritance in Java?	2	1	2	1,2
4.	Differentiate between default constructor and Parameterized Constructor with an example.	2	2	2	1,2
5.	What are the states in the lifecycle of a Thread?	2	2	3	1,2
6.	Give the difference between error and Exception in Java.	2	2	3	1,2
7.	Why Strings are Immutable in Java?	2	2	4	1,2
8.	List the important classes and interfaces available in java.io package	2	1	4	1,2
9.	What is the difference between a Java Application and a Java Applet?	2	2	5	1,2
10.	What are the different types of controls in AWT	2	2	5	1,2
Part-B (5 × 8 = 40 Marks)					
11. a)	What are the main principles of Object Oriented Programming?	4	1	1	1,2
b)	Write a Java program to check if the given number is a prime or not.	4	3	1	1,2
12. a)	Create an Interface shape with display method and area method. Implement this interface in two classes namely circle and rectangle. Create objects for circle and rectangle class and define the methods of shape interface.	4	3	2	1,2
b)	'this' keyword is used for Hiding instance variables. Write a code snippet to demonstrate this property?	4	3	2	1,2

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13. a)	Write a java program to create a class Hockey that will represent some features of Hockey team . The Hockey class has the following four data members 'Name of the team', 'Number of Wins', 'Number of Loses', and 'Net Run Rate', where these members cannot be accessed outside the class. Define a constructor that accepts all above mentioned data fields as arguments and initializes those members. Note that this constructor should be accessible from any other packages. Consider that the number of teams participating are 8. Build some methods inside the Hockey class that return the 'Name of the team', 'Number of Wins', 'Number of Loses', and 'Net Run Rate' Next write one method which increases 'Number of Wins' by 1 and another method to increase the 'Number of Losses' by 1. Ensure that the sum of number of wins and losses should be 14 for a particular team, otherwise throw a user-defined exception.	4	3	3	1,2
b)	Explain the process of inter process communication with an example.	4	3	3	1,2
14. a)	Write a java program to read a string from the user "welcome to basics of java programming" and display the output in the following manner welcome	4	3	4	1,2
	to basics of java programming				
b)	What is File and Directory? List out the various operations that can be performed on files.	4	1	4	1,2
15. a)	What is an Applet? Explain the architecture of an Applet .	4	1	5	1,2
b)	List out the various classes and interface from java.awt.event package.	4	1	5	1,2
16. a)	Describe the significant features of Java which made it familiar compared to other languages.	4	2	1	1,2
b)	Differentiate between final and finally keywords with suitable example.	4	2	2	1,2
17.	Answer any <i>two</i> of the following:				
a)	What is multithreading? How do you set and get priority values for threads in Java.	4	2	3	1,2
b)	Write a Java program to read student details from the university database and write into a separate file.	4	3	4	1,2
c)	What is the order of method invocation in an applet?	4	2	5	1,2

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level - 1	30%
ii)	Blooms Taxonomy Level - 2	35%
iii)	Blooms Taxonomy Level - 3 & 4	35%
