Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER –5 (NEW) - EXAMINATION –WINTER-2022

Subject Code: 3350703   **Date: 13-01-2023**
Subject Name: Java Programming
Time:10:30 AM TO 1:00 PM   **Total Marks:70**
Instructions:
  1. **Attempt all questions.**
  2. **Make Suitable assumptions wherever necessary.**
  3. **Figures to the right indicate full marks.**
  4. **Use of simple calculators and non-programmable scientific calculators are permitted.**
  5. **English version is authentic.**

Q.1		Answer any seven out of ten. દશમાંથી કોઈપણ સાતના જવાબ આપો.	**14**

1. Define wrapper class. Write the name of any two wrapper class.
૧. Wrapper class ની વ્યાખ્યા આપો. બે Wrapper class ના નામ આપો.

2. Describe Byte Code in Java.
૨. Bytecode વર્ણવો.

3. What is Constructor?
૩. Constructor શું છે?

4. Why java is not supported Pointer?
૪. Java પોઇંન્ટર ને સપોર્ટ કેમ નથી કરતો તે સમજાવો

5. List any four inbuilt exceptions.
૫. કોઈપણ ચાર inbuilt exceptions ની યાદી બનાવો

6. Wha is the use of static keyword in Java.
૬. JAVA માં static keyword નો ઉપયોગ શું છે?

7. What is interface?
૭. Interface એટલે શુ?

8. Write the syntax to create and import a package.
૮. પેકેજ બનાવાની અને ઈમ્પોર્ટ કરવા ની રીત લખો.

9. List different thread priorities.
૯. જુદી જુદી thread priorities ની યાદી લખો.

10. Define Abstract class
૧૦. Abstract class ની વ્યાખ્યા આપો.

Q.2	(a)	Explain JVM in java.	**03**
પ્રશ્ન. ૨	(અ)	JAVA માં JVM સમજાવો.	૦૩

OR

	(a)	Explain the features of JAVA	**03**
	(અ)	JAVA ના features સમજાવો.	૦૩
	(b)	Distinguish between break and continue statement in Java with Example.	**03**
	(બ)	Break અને continue સ્ટેટમેંટ વચ્ચે નો તફાવત ઉદાહરણ સહિત સમજાવો.	૦૩

OR

	(b)	Explain the difference between string class and string buffer class with example.	**03**

(બ)	String class અને stringbuffer class વચ્ચે નો તફાવત ઉદાહરણ સહિત સમજાવો.	૦૩
(c)	Explain method overloading with example.	**04**
(ક)	Method overloading ઉદાહરણ સહિત સમજાવો.	૦૪

OR

(c)	Explain constructor overloading with example.	**04**
(ક)	Constructor overloading ઉદાહરણ સહિત સમજાવો.	૦૪
(d)	Write a program in Java that calculates factorial of n using recursive function.	**04**
(ડ)	Write a program in Java that calculates factorial of n using recursive function.	૦૪

OR

(d)	Write a program in Java that reads n numbers using command line argument and display that numbers.	**04**
(ડ)	Write a program in Java that reads n numbers using command line argument and display that numbers.	૦૪

Q.3	(a)	Explain structure of Java Program	**03**
પ્રશ્ન. 3	(અ)	Java program નું માળખુ સમજાવો.	૦૩

OR

(a)	Compare procedure oriented programming language with object oriented programming language.	**03**
(અ)	Procedure oriented programming language ને object oriented programming language સાથે સરખાઓ.	૦૩
(b)	Write short note: Abstract class.	**03**
(બ)	Abstract class ની ટૂંકી નોંધ લખો.	૦૩

OR

(b)	Distinguish: Throw vs. throws.	**03**
(બ)	Throw અને throws વચ્ચે નો તફાવત સમજાવો.	૦૩
(c)	What is Dynamic Method Dispatch in Java? Explain with example.	**04**
(ક)	Java માં Dynamic Method Dispatch શું છે? ઉદાહરણ સાથે સમજાવો.	૦૪

OR

(c)	What is Synchronization? When do we use it?	**04**
(ક)	Synchronization શું છે? એને કેવી રીતે ઉપયોગ કરી શકાય?	૦૪
(d)	Write a program in Java that read the content of a file byte by byte and copy it into another file.	**04**
(ડ)	Write a program in Java that read the content of a file byte by byte and copy it into another file.	૦૪

OR

(d)	Write a program in Java to read the contents of a file into character array and write it into another file.	**04**
(ડ)	Write a program in Java to read the contents of a file into character array and write it into another file.	૦૪

Q.4	(a)	Explain Super keyword in inheritance.	**03**
પ્રશ્ન. ૪	(અ)	Inheritances માં superkeyword સમજાવો.	૦૩

OR

(a)	Write a Java program to print Fibonaci series.	**03**
(અ)	Write a Java program to print Fibonaci series.	૦૩
(b)	Explain Inheritance & its types with example.	**04**
(બ)	Inheritance ના પ્રકાર ઉદાહરણ સાથે સમજાવો.	૦૪

	(b)	Write a program in Java to find the sum of the digits of a number using while loop. (Ex. entered no is 123 than sum is 6)	**04**
	(બ)	Write a program in Java to find the sum of the digits of a number using while loop. (Ex. entered no is 123 than sum is 6)	૦૪
	(c)	Explain how multiple inheritances is implemented in Java with example.	**07**
	(ક)	Java માં multiple inheritance બનાવાની રીત ઉદાહરણ સહિત સમજાવો.	૦૭
Q.5	(a)	Explain exception handling mechanism in Java.	**04**
પ્રશ્ન. પ	(અ)	Java માં exception handling mechanism સમજાવો.	૦૪
	(b)	Explain thread life cycle.	**04**
	(બ)	Thread life cycle સમજાવો.	૦૪
	(c)	Write short note: Unchecked exception.	**03**
	(ક)	Unchecked exception ની ટૂંકી નોંધ લખો.	૦૩
	(d)	Write short Note: garbage collection.	**03**
	(ડ)	Garbage collection ની ટૂંકી નોંધ લખો.	૦૩

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