Code -

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Maharashtra Institute of Technology, Aurangabad

(An Autonomous Institute)

END SEMESTER EXAMINATION

Second Year B.Tech (AIDS) – Feb/Mar-2023

Course Code : AID203 **Course Name :** OOPS

Duration : 2 Hrs **Max. Marks : 50** **Date :**

Instructions :

i) **All questions are compulsory**
ii) **Assume suitable data wherever necessary and clearly state it**
iii) **Figures to right indicate full marks**

Q. 1	**Answer any five**(Marks:10)				
		Marks	**CO**	**BL**	**PI**
a)	State the JIT compiler advantages Ans: JIT compilers need less memory usage. JIT compilers run after a program starts. Code optimization can be done while the code is running. Any page faults can be reduced. Code that is used together will be localized on the same page. Can utilize different levels of optimization.	2	CO 2	II	
b)	What is the difference between C and C++? Ans: **C is a function driven language because C is a procedural programming language. C++ is an object driven language because it is an object oriented programming.** Function and operator overloading is not supported in C. Function and operator overloading is supported by C++	2	CO 1	II	
c)	What are the main features of OOPs? Ans: • Inheritance. • Encapsulation. • Abstraction. • Polymorphism. • Method Overriding. • Method Overloading. • Objects. • Classes.	2	CO 1	II	

d)	What is a destructor? Ans: Destructor is an instance member function which is invoked automatically whenever an object is going to be destroyed.	2	CO 1	II	
e)	What are the advantages of Object-Oriented Languages? Ans: Object-oriented programming provides flexibility for your **codebase through** inheritance and polymorphism. Classes and objects (depending on the language) can also share properties and methods through inheritance. The child class or object inherits everything from its parent.	2	CO 2	II	
f)	What is this keyword in java? Ans: The this keyword refers to the current object in **a method or constructor**. The most common use of the this keyword is to eliminate the confusion between class attributes and parameters with the same name (because a class attribute is shadowed by a method or constructor parameter).	2	CO 1	II	
g)	Why is Inheritance used in Java? Ans: The most important use of inheritance in Java is **code reusability**. The code that is present in the parent class can be directly used by the child class. Method overriding is also known as runtime polymorphism.	2	CO 1	II	
h)	List the features of Java Programming language. Ans: • Simple. • Object-Oriented. • Platform Independent. • Portable. • Robust. • Secure. • Interpreted. • Multi-Threaded.	2	CO 2	II	
Q. 2	What is the difference between JDK, JRE, and JVM Ans: The JRE is an abbreviation for Java Runtime Environment. The JVM is an abbreviation for Java Virtual Machine. The JDK (Java	8	CO 2	III	

	Development Kit) is a software development kit that develops applications in Java. Along with JRE, the JDK also consists of various development tools (Java Debugger, JavaDoc, compilers, etc.)
	OR
	What is the output of the following program?
	class Test
	{
	public static void main (String args[])
	{
	for(int i=0; 0; i++)
	{
	System.out.println("Hello Javatpoint");
	}
	}
	}
	ANS:
	The above code will give the compile-time error because the for loop demands a boolean value in the second part and we are providing an integer value, i.e., 0.				

Q. 3	What will be the output of the following program?
	class Person
	{
	public Person()
	{
	System.out.println"Person class constructor called");
	}
	}
	public class Employee extends Person
	{
	public Employee()
	{
	System.out.println("Employee class constructor called");
	}
	public static void main (String args[])
	{
	Employee e = new Employee();
	}
	}
	Answer:
		8	CO 3	III	

	Person class constructor called Employee object constructor called Explanation The super() is implicitly invoked by the compiler if no super() or this() is included explicitly within the derived class constructor. Therefore, in this case, the Person class constructor is called first and then the Employee class constructor is called OR Write a Java Program to show the use of constructors . Correct pgm with proper syntax should be given full marks				

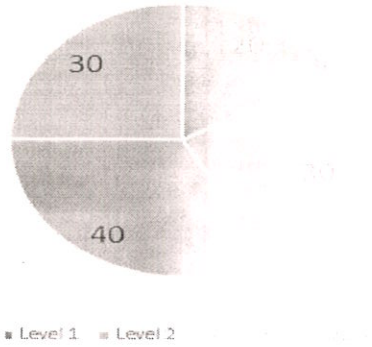
Q. 4	What will be the output of the following program?
	class A
	{
	{
	System.out.println(1);
	}
	}
	
	class B extends A
	{
	{
	System.out.println(2);
	}
	}
	
	class C extends B
	{
	{
	System.out.println(3);
	}
	}
	
	public class MainClass
	{
	public static void main(String[] args)
	{
	C c = new C();
	}
	}
	Answer :
	1
	2
	3
	
	Or
	Write a java program to use important methods of string class
	Correct pgm with proper syntax should be given full marks
		8	CO 4	III	

Q. 5	What are the types of exceptions in Java API? What is the advantage of using exception handling in Java? ANSWER; The Exception Handling in Java is one of the powerful mechanism to handle the runtime errors so that the normal flow of the application can be maintained. ...	8	CO 5	III	

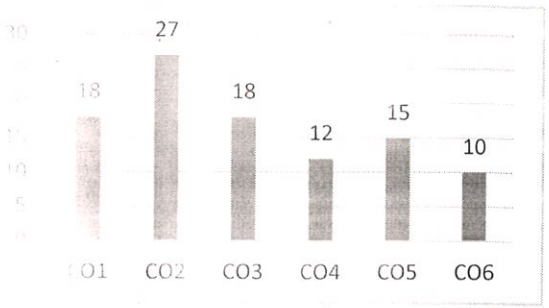
	However, according to Oracle, there are three types of exceptions namely: • Checked Exception • Unchecked Exception. • Error. OR Can we just use try instead of finally and catch blocks? Mention the methods in the throwable class. Correct answer will be given full marks				
Q. 6	What is the difference between Thread and Process in Java? How do you implement Thread in Java? Ans: Both process and thread are related to each other and quite similar as these are the independent sequence of execution. The basic difference between a process and a thread is that a process takes place in different memory spaces, whereas a thread executes in the same memory space OR Write a simple Java program to implement multithreading example Ans: Correct program should be given full marks	8	CO 6	III	

Note:- All course outcomes shall be addressed.

Blooms Level Wise
Marks Distribution



Course Outcome Wise
Marks Distribution



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