Vignan Institute of Technology and Science

Department Of Electronics and Instrumentation Engineering

A.Y. 2023-24 III B.Tech II Sem Object Oriented Programming Through Java

Descriptive Question Bank

UNIT -1

S.NO	QUESTION	MARKS	CO	PO	BTL
1.a	What is History of Java?	2	1	1	1
1.b	Define Encapsulation?	3	3	1	2
1.c	Explain features of object oriented programming languages.	10	3	2	2
2.a	Define Polymorphism?	2	2	1	2
2.b	Describe scope & life time of a variable?	3	1	2	2
2.c	Explain briefly about String class and discuss various methods in string class with an example.	10	3	3	2
3.a	Define type casting?	2	1	1	3
3.b	Discuss the different levels of accesses protection available in Java with examples.	3	3	8	2
3.c	Write about conditional statements.	10	1		
4.a	Define garbage collection?	2	1	1	1
4.b	Describe type conversion?	3	3	1	2
4.c	Write about the console input and output with an example.	10	2	2	2
5.a	Define Inheritance?	2	1	3	1
5.b	Classify the use of “this” reference?	3	2	1	1
5.c	Write about all the operators in java with an example.	10	3	3	2
6.a	Write about the break and continue statements with an example.	2	3	8	1
6.b	What is constructor? Explain the types of constructors are used in Java.	3	2	2	1
6.c	What is method overloading? Define two methods that have same name but different parameter types. Define two methods in class that have identical method names and parameter profile with different return value types or different modifier.	5	1	3	3
7a.	Write a program to find the inverse of a given matrix.	2	1	3	1
7b.	Explain parameter passing mechanism in Java.	3	2	1	1
7c.	What is an array? Write a program that creates and initializes a four integer elements array. Find the sum and average of its value.	10	3	3	2
8a.	What is a class?	2	1	1	1
8b.	What is the significance of Java byte code?	3	1	1	1
8c.	a)Does Java support bit-wise operators? Justify your answer. b) Demonstrate constructor overloading with an example Java program.	5+5	1	3	2

UNIT -2

S.NO	DESCRIPTION OF QUESTION	MARKS	CO	PO	BTL
1.a	Write about Object class	2	1	2	2
1.b	List types of inheritances in java?	3	1	1	3
1.c	Explain the types of Access specifiers are used in Java and also illustrate with an example.	10	1	3	2

2.a	Define Abstract classes? Write with an example?	2	1	1	2
2.b	Write final classes , methods with an example	3	1	3	2
2.c	What is the use of super and final. Illustrate with example.	10	2	2	3
3.a	Define inner classes?	2	2	1	1
3.b	Define abstract classes?	3	2	2	1
3.c	Explain the process of defining and creating a package with suitable examples.	10	3	4	5
4.a	Define method overriding? Write a Java program to implement method overriding.	2	1	2	2
4.b	Difference between interfaces vs. Abstract classes	3	3	1	1
4.c	a) Write Uses of 'Super' keyword , discuss accessing the member of a super class. b) Explain the benefits and various forms of inheritance implemented	10	2	4	2
5.a	Write creating, importing packages?	2	3	1	5
5.b	How to define and declare an interface?	3	1	1	2
5.c	List types of inheritances in java? Write each of them in detail.	10	2	4	3
6.a	Define CLASSPATH?	2	1	4	1
6.b	Write extending interfaces with an example	3	1	1	2
6.c	Define an interface in java. How are interfaces implemented? How they can be accessed?	10	3	4	3

UNIT -3

S.NO	DESCRIPTION OF QUESTION	MARKS	CO	PO	BTL
1.a	Define Exception?	2	1	2	2
1.b	Demonstrate creation of thread by implementing Runnable interface with a program	3	3	1	3
1.c	Write with an example how java performs thread synchronization?	10	3	3	2
2.a	Distinguish between exception and error?	2	3	1	2
2.b	Write the usage of throw, throws and finally	3	3	3	2
2.c	What is thread? How to implement multithreading in Java.	10	3	2	3
3.a	Write the alive() and join() method	2	2	3	3
3.b	Explain generic methods in Java with examples.	3	3	1	1
3.c	Write producer consumer problem with an example	10	1	2	1
4.a	How to implement user defined exceptions in Java with example?	2	3	4	5
4.b	Distinguish between throw and throws?	3	3	2	2
4.c	Write a program that counts number of characters, words, and lines in a file. Use exceptions to check whether the file that is read exists or not.	10	2	1	1
5.a	Define unchecked exceptions?	2	1	4	2
5.b	Distinguish between process and thread?	3	1	1	5
5.c	What is an Exception? List out the keywords for exception handling and write steps to develop user defined exception. Or How are exceptions handled in Java programming? Demonstrate with suitable code segments.	10	1	1	2
6.a	Write thread priorities.	2	1	4	3
6.b	Describe the complete life cycle of a thread with an example.	3	2	4	1
6.c	What is multithreading? What are the priorities given for multithreading? Explain advantages of multithreading.	10	3	1	2
7a	What is the need of auto boxing?	2	1	4	3
7b	Discuss the built-in functions used in inter thread communication.	3	3	1	2
7c	Write a Java program to count number of words in a given sentence.	10	3	1	2

UNIT-4

S.NO	DESCRIPTION OF QUESTION	MARKS	CO	PO	BTL
1.a	Define Layout management?	2	2	1	1
1.b	Define components?	3	3	1	2
1.c	What are the different types of AWT components? How are these components added to the container?	10	3	2	2
2.a	Define AWT class hierarchy?	2	1	1	2
2.b	Define containers?	3	1	2	2
2.c	Explain about layout manager and different layouts and write an example program to demonstrate layouts.	10	1	3	2
3.a	Define some of swing components?	2	1	1	3
3.b	Distinguish between swings Vs AWT?	3	1	8	2
3.c	What is Adapter classes? Explain Mouse Motion Adapter class with suitable Java program	10	2	3	2
4.a	Define Jbutton, JLabel, JTextField and JtextArea?	2	1	1	1
4.b	Write Events, Event sources, Event classes	3	1	1	2
4.c	With suitable program describe handling of mouse events and mouse motion events.	10	2	2	2
5.a	Define JFrame, JApplet, JDialog and Jpanel?	2	1	3	1
5.b	Explain about the Key event Class and its methods in Java.	3	1	1	1
5.c	Write short notes on event, event source and event listeners.	10	2	3	2
6.a	Explain about Menu Bars and Menus class in AWT.	5	1	8	1
6.b	Describe delegation event model.	5	1	2	1
6.c	Develop a program to handle key events	5	1	3	3
7a	List the types of applets.	2	1	1	1
7b	What are the limitations of AWT?	3	1	8	2
7c	Construct an user interface form for student registration to a hackathon using AWT components and event handling concept.	10	2	3	2

UNIT-5

S.NO	DESCRIPTION OF QUESTION	MARKS	CO	PO	BTL
1.a	Explain the life cycle of an Applet with suitable program.	2	1	1	1
1.b	Write a program for handling a button clicks?	3	1	1	2
1.c	Develop an applet that receives an integer in one text filed and the compute the factorial value and return in another text filed, when the button named “Compute” is clicked.	10	1	2	2
2.a	Define adapter class?	2	1	1	2
2.b	Compare applets with application programs.	3	1	2	2
2.c	How to create an applet? Explain with an example.	10	1	3	2
3.a	Distinguish between swings Vs AWT?	2	1	1	3
3.b	Why swing components are preferred over AWT components?	3	1	8	2
3.c	Explain MVC Architecture in detail.	10	2		
4.a	Write Event Listeners	2	1	1	1
4.b	Describe the relationship between Event sources and Listeners?	3	1	1	2
4.c	Develop an apple that receives two integers from two text fields and perform addition, substraction, multiplication and division	10	2	2	2
5.a	Define Delegation event model?	2	1	3	1
5.b	Describe applet security issues?	3	1	1	1
5.c	What is swing? Explain various swing components..	10	1	3	2
6.a	What are the different type of Event Listeners	2	1	8	1
6.b	Distinguish between applet and application?	3	1	2	1
6.c	Create an applet to perform division operation by handling exceptions using swing components.	10	3	3	3
7a	Write the code to create an applet to draw a smiley.	2	1	8	1
7b	How to pass parameters to an applet? Present an example	3	1	2	1

	code.				
7c	Describe in detail about Model-View-Controller (MVC) architecture with relevant Java program.	10	3	3	3