

Hall Ticket Number:

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Code No. : 14128 (E)

**VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD**  
**B.E. (CBCS) IV-Semester Main Examinations, January-2021**  
**Introduction to Object Oriented Programming**  
 (Open Elective-II)

Time: 2 hours

Max. Marks: 60

Note: Answer any *NINE* questions from *Part-A* and any *THREE* from *Part-B**Part-A (9 × 2 = 18 Marks)*

Q. No.	Stem of the question	M	L	CO	PO
1.	Justify the following statement: "Java is a strongly typed language"	2	2	1	2
2.	Define an interface. Also provide syntax for declaring an interface.	2	1	1	1
3.	What are the advantages offered by exception handling mechanism in java.	2	2	2	1
4.	List any four keywords related to exception handling mechanism.	2	1	2	1
5.	State the purpose of using 'File' class of java.io package. Write the syntax for creating a directory using 'File' class.	2	2	3	1
6.	Distinguish between a String and a StringBuffer class.	2	2	3	2
7.	Match the following events with that of their sources a) Frame                      i) ItemEvent b) Button                      ii) WindowEvent c) Scrollbar                      iii) ActionEvent d) Choice                      iv) AdjustmentEvent	2	1	4	2
8.	What is the purpose of using LayoutManager ? Give any two examples of layout managers.	2	1	4	1
9.	Assuming that an applet class is written in a source file named "HelloApplet.java" and the class is a public class, the applet is embedded inside a html file named "greet.html", specify command for running the applet.	2	3	5	2
10.	Given an applet class named "Chat.class" write the applet tag which embeds the class file in a html document.	2	2	5	2
11.	Are arrays treated as objects in Java? How to find the number of command line arguments passed to a Java program.	2	2	1	2
12.	List any four built-in exception classes which are a part of Java API.	2	1	2	1
<i>Part-B (3 × 14 = 42 Marks)</i>					
13. a)	Explain the concept of user defined packages along with sample code.	7	2	1	1
b)	Write a java program to illustrate the concept of inheritance and method overriding.	7	3	1	3

14. a)	Write a Java program to demonstrate the concept of user defined exceptions.	7	3	2	3
b)	Distinguish between a checked and an unchecked exception along with an example code.	7	2	2	2
15. a)	Write a java program which creates and serializes 'Employee' objects, where an 'Employee' object has two instance variables 'name' and 'id'.	7	3	3	3
b)	Define a Stream. Distinguish between a byte stream and a character stream.	7	2	3	2
16. a)	Illustrate the concept of delegation event model with an example.	7	2	4	2
b)	Write a GUI based java program using AWT which takes five numbers as input and displays their minimum and maximum of those five numbers as outputs.	7	3	4	3
17. a)	Illustrate the concept of applet life cycle.	7	2	5	2
b)	Write a java applet which takes four numbers as parameters passed via a html file and displays the average of those four numbers as output on the applet.	7	3	5	3
18. a)	Write a java program which creates a two dimensional integer array of size 'm' * 'n' wherein the values of 'm' and 'n' are taken as command line arguments, Once the array is created the program must populate the array by taking input typed from console.	7	3	1	3
b)	Write a java class named Person having three attributes namely 'name', 'age' and 'gender'. Create instances of 'Person' class by taking input from the user, the program must handle exceptions i) if the values of the attributes are not provided by user ii) if the value of 'age' is not an integer iii) if the value of 'gender' is not 'm' or 'f'	7	3	2	3
19.	Answer any <i>two</i> of the following:				
a)	State the purpose of using Wrapper classes in Java. Also provide sample code which demonstrates the concept of wrapper classes.	7	2	3	2
b)	Can two dimensional shapes be drawn using 'Graphics' class? List and explain about any three methods present in the 'Graphics' class along with sample code.	7	2	4	2
c)	Distinguish between and Applet based application and a Frame based application	7	2	5	2

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

S. No.	Criteria for questions	Percentage
1	Fundamental knowledge (Level-1 & 2)	60%
2	Knowledge on application and analysis (Level-3 & 4)	40%
3	*Critical thinking and ability to design (Level-5 & 6) (*wherever applicable)	0

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