P P SAVANI UNIVERSITY

First Semester of B. Tech. Examination
December 2022
SSIT1071: Object Oriented Programming with Java

07.12.2022, Wednesday   Time: 01:00 a.m. To 03:30 p.m.   **Maximum Marks: 60**

Instructions:
1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

SECTION – I

			CO	BTL
Q - 1	MCQ/Short Question/Fill in the Blanks (Any Five)	[05]		
(i)	Which one of the following is not a Java feature?		1	1
	A. Object-oriented			
	B. Use of pointers			
	C. Portable			
	D. Dynamic and Extensible			
(ii)	Which environment variable is used to set the java path?		1	1
	A. MAVEN_Path			
	B. JavaPATH			
	C. JAVA			
	D. JAVAHOME			
(iii)	Which one is a template for creating different objects ?		1	1
	A. An Array			
	B. A class			
	C. Interface			
	D. Method			
(iv)	Select the valid statement.		1	2
	A. char[] ch = new char(5)			
	B. char[] ch = new char[5]			
	C. char[] ch = new char()			
	D. char[] ch = new char[]			
(v)	Explain "this" Keyword		2	1
(vi)	Define Object		1	1
(vii)	List types of Datatypes		1	1
Q - 2 (a)	What is type casting? Discuss types of conversions.	[05]	1	2
Q - 2 (b)	What is Constructor? Explain the Constructor Overloading with example.	[05]	1	1

OR

			CO	BTL
Q - 2 (a)	Advantages, disadvantages of Object oriented programming?	[05]	1	1
Q - 2 (b)	Explain switch - case with syntax and example.	[05]	1	3
Q - 3 (a)	Short Note: Wrapper Class	[05]	1	1
Q - 3 (b)	Explain relational operators with example.	[05]	1	2

OR

			CO	BTL
Q - 3 (a)	Explain Logical operator with example.	[05]	1	2
Q - 3 (b)	Explain do – while loop Syntax, Example and Program.	[05]	1	3

		[05]		

Q - 4 Attempt any one/two.

(i) Write a program to print Fibonacci series based on the user input in Java. | 1 | 6

Output : Fibonacci Series of 10 numbers : 0 1 1 2 3 5 8 13 21 34

(ii) Write a program to find maximum of three numbers. | 1 | 6

SECTION – II

Q - 1 MCQ/Short Question/Fill in the Blanks (Any Five) [05]

(i) Which of the following is a superclass of every class in Java? | 1 | 2
A. ArrayList
B. Abstract class
C. Object class
D. String

(ii) Which of these keywords are used for the block to be examined for exceptions? | 3 | 2
A. check
B. throw
C. catch
D. try

(iii) Which of these operators is used to allocate memory to array variable in Java? | 1 | 1
A. alloc
B. malloc
C. new malloc
D. new

(iv) All Java exceptions can be handled gracefully. State TRUE or FALSE. | 3 | 5
A. TRUE
B. FALSE

(v) Define Polymorphism | 2 | 1

(vi) What is the maximum number of Java Class files that can be kept inside a single Java Package? | 1 | 4
A. 8
B. 64
C. 128
D. Unlimited

(vii) What is the output of the below Java program with arrays? | 1 | 5
```
String[] ary = {"KITE", "AIR"};
String str = "PLANE";
ary[1] = str;
str = "FLY";
System.out.println(ary[1]);
```
A. AIR
B. PLANE
C. FLY
D. Compiler error

Q - 2 (a) Compare String and StringBuffer | [05] | 2 | 4

Q - 2 (b) Explain package creation and how to access package. | [05] | 2 | 3

OR

Q - 2 (a) What is Interface? Explain with example. | [05] | 2 | 5

Q - 2 (b) Explain this and super keyword with example. | [05] | 1 | 2

Q - 3 (a)	Explain try, catch and finally blocks?	[05]	3	1
Q - 3 (b)	What is use of File class? Explain various methods of File class.	[05]	2	2

OR

Q - 3 (a)	What do you understand by Applet? Describe the complete life cycle of Applet.	[05]	4	1
Q - 3 (b)	Explain throw keyword. Give an example for throwing user define exception explicitly.	[05]	3	5
Q - 4	Attempt any one/two.	[05]		
(i)	Write a program that creates and initializes a four integer element array. Calculate and display the average of its values.		1	6
(ii)	Describe abstract class called Shape which has three subclasses say Triangle, Rectangle, and Circle. Define one method area() in the abstract class and override this area() in these three subclasses to calculate for specific object i.e. area() of Triangle subclass should calculate area of triangle etc. Same for Rectangle and Circle.		3	6

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CO : Course Outcome Number   BTL : Blooms Taxonomy Level

Level of Bloom's Revised Taxonomy in Assessment

1: Remember	2: Understand	3: Apply
4: Analyze	5: Evaluate	6: Create