



P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Third Semester, B.E. - Computer Science and Engineering

Semester End Examination; Dec. - 2019

Object Oriented Programming with Java

Time: 3 hrs

Max. Marks: 100

Note: i) PART - A is compulsory. Two marks for each question.

ii) PART - B: Answer any **Two** sub questions (from a, b, c) for Maximum of **18 marks** from each unit.

Q. No.	Questions	Marks
I : PART - A		10
I a.	Write a simple Java program to check a given number is even or odd.	2
b.	What is the difference between method overloading and method overriding?	2
c.	Explain the different uses of the keyword super.	2
d.	Explain the different Exception handlers.	2
e.	List out any four major benefits of Generics.	2
II : PART - B		90
UNIT - I		18
1 a.	Briefly explain the basic concepts of Object Oriented Programming.	9
b.	i) List and explain different operators in Java.	5
	ii) Write a Java program to check whether the input year is leap year or not.	4
c.	i) Explain different control statements in Java.	5
	ii) Create a Java program to display first 10 Fibonacci numbers.	4
UNIT - II		18
2 a.	i) Discuss the process of creating object with an example.	5
	ii) List and explain different class modifiers.	4
b.	What are the differences between passing arguments by value and passing arguments by reference along with relevant examples?	9
c.	i) Explain the use of Final and Static keywords.	5
	ii) Develop a Java program to illustrate overloaded constructor methods.	4
UNIT - III		18
3 a.	Define Inheritance. Explain the different types of inheritance with simple code snippet.	9
b.	Illustrate with example a super class variable can reference a sub class object.	9
c.	i) Write a program to demonstrate implementing interfaces.	6
	ii) What is the major difference between Interface and Class?	3

Contd...2

UNIT - IV**18**

- 4.a i) What is a package? Explain how to import packages into Java program with an example? 6
ii) Explain wrapper classes with example. 3
- b. List and explain different classes of the package Java.util. 9
- c. Define Exception. Explain exception handling mechanism with an example. 9

UNIT - V**18**

- 5 a. i) Explain the generic class and constructor with an example. 6
ii) Explain with an example different types of wild cards. 3
- b. Write a Java program that creates a file, writes a sentence into it, reads the file and display the sentence to the monitor. 9
- c. Discuss overriding methods in Generics with example. 9

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