

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(MID SEMESTER EXAMINATION)**

**CLASS: BTECH/IMSC**  
**BRANCH: EEE/CSE/IT/BT/CHEMICAL/CEP&P/MATHS & COMP.**

**SEMESTER: IV**  
**SESSION: SP/2020**

**SUBJECT: CS204 OBJECT ORIENTED PROGRAMMING AND DESIGN PATTERNS**

**TIME: 2 HOURS**

**FULL MARKS: 25**

**INSTRUCTIONS:**

1. The total marks of the questions are 25.
  2. Candidates may attempt for all 25 marks.
  3. Before attempting the question paper, be sure that you have got the correct question paper.
  4. The missing data, if any, may be assumed suitably.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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			<b>CO</b>	<b>BL</b>
Q1	(a) Describe the concept of memory areas in JAVA.	[2]	2	1
Q1	(b) Differentiate between JDK, JRE and JVM.	[3]	1	2
Q2	(a) Explain the significance of argument promotion in java with instances.	[2]	2	5
Q2	(b) Identify the advantages or disadvantages of static members over instance members.	[3]	4	1
Q3	(a) Identify the significance of polymorphism feature introduced in JAVA.	[2]	2	1
Q3	(b) Describe what the keyword 'this' refer to? Illustrate its use in different situations with example.	[3]	2	3
Q4	(a) Interfaces provide 100% abstraction. Describe whether statement is true or false with justification.	[2]	2	5
Q4	(b) Identify and list out all the differences between Abstract classes and Interfaces.	[3]	2	4
Q5	(a) State the significance of getters setters in JAVA.	[2]	2	3
Q5	(b) Explain the role of blocks, constructors, variables and methods while using the concept of inheritance.	[3]	1	5

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