



Indian Association for the Cultivation of Science
(Deemed to be University under *de novo* Category)
**Master's/Integrated Master's-PhD Program/Integrated Bachelor's-Master's
Program/PhD Course**
End-Semester (Sem-II) Examination-Spring 2021

Subject: Object-Oriented Programming with Java
Full Marks: 50

Subject Code(s): MCS1201B
Time Allotted: 3 h

[Answer any five questions]

(5*10=50)

1. a) What is the constructor? Explain different types of constructor with proper example.
b) What are the differences between the constructors and methods?
((2+4) + 4)
2. a) What are the differences between compile-time polymorphism and runtime polymorphism? Explain with example.
b) What is abstract class? Write down the differences between abstract class and interface.
(5 + (2+3))
3. a) Write down the differences between String and StringBuffer class.
b) Explain final, finally and finalize() in context of java.
(4+6)
4. a) What is inner class? Explain different types of inner class in java with example.
b) What do you mean by autoboxing and unboxing in java?
((2+5) + 3)
5. a) What is synchronization? Why it is required? Explain with an example.
b) Write a java program to find all prime numbers between 1 and 1000.
((2+4) + 4)
6. a) What is stream? Write a java program to read from a file and count how many words present in it.
b) Write down the differences between throw and throws keyword.
((2+4) +4)
7. a) What is event? Write an applet program to find the factorial of a number.
b) Write down the differences between “==” and equals().
((2+4) +4)