

Roll No. : .....

Total No. of Questions : **16** ]

[ Total No. of Printed Pages : **3**

# **SEM-3014**

**M.Sc. (IIIrd Semester) Examination, 2022**

**COMPUTER SCIENCE**

Paper - MCS-302 (A)

**(Java)**

*Time : 3 Hours ]*

*[ Maximum Marks : 40*

The question paper contains three Sections.

**Section-A**

**(Marks : 1 × 10 = 10)**

*Note :-* Answer all the *ten* questions carries **1** mark each. The answer should not exceed **50** words.

**Section-B**

**(Marks : 3 × 5 = 15)**

*Note :-* Answer any *five* questions by selecting at least *one* question from each Unit. Each question carries **3** marks. Answer should not exceed **200** words.

**Section-C**

**(Marks : 5 × 3 = 15)**

*Note :-* Answer *three* questions by selecting *one* question from each Unit. Each question carries **5** marks. The answer should not exceed **500** words.

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### **Section–A**

1. (i) Define Keywords.
- (ii) What is Constant ?
- (iii) What do you understand by type casting ?
- (iv) Define instance variable.
- (v) What is the use of super ?
- (vi) What is final class ?
- (vii) What do you understand by wrapper classes ?
- (viii) What is the role of finally in exception handling ?
- (ix) What are command line arguments ?
- (x) What is thread priority ?

### **Section–B**

#### **Unit–I**

2. Explain datatypes in Java.
3. Write a program to check a given number is odd or even.
4. Give an example of constructor.

#### **Unit–II**

5. Explain types of inheritance.
6. How multiple inheritance is implemented by interface ? Give an example.
7. Explain vector with example.

#### **Unit–III**

8. Give an example of taking input from user.
9. Explain exception handling in Java with example.
10. What is the difference between Thread class and Runnable interface ?

## **Section-C**

### **Unit-I**

11. Explain method overloading with suitable example.
12. Write a program to check a given number is prime or not.

### **Unit-II**

13. What is Abstract Class ? Explain method overriding with example.
14. Explain Packages.

### **Unit-III**

15. What are different types of Errors ? Explain the difference between throw and throws.
16. Explain life cycle of thread in detail.