

**G-3/371/22**

Roll No. ....

**III Semester Examination, January 2022**

**M.Sc.**

**INFORMATION TECHNOLOGY**

**Paper I**

(Java Programming Language)

Time : 3 Hours ]

[ Max. Marks : 100

**Note :** *All questions are compulsory. Question Paper comprises of 3 Sections. Section A is objective type/multiple choice questions with no internal choice. Section B is short answer type with internal choice. Section C is long answer type with internal choice.*

**SECTION A**

**1×10=10**

**(Objective Type/Multiple Choice Questions)**

Choose the correct answer :

1. Which of these cannot be used for a variable name in Java ?  
(a) Identifier                      (b) Keyword  
(c) Both (a) and (b)      (d) None of the mentioned
2. What is the extension of compiled Java classes ?  
(a) .txt                              (b) .JS  
(c) .class                              (d) .java

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3. Which one of the following is not an access modifier ?  
(a) Protected                      (b) Void  
(c) Public                              (d) Private
4. An object is created at ..... time in Java.  
(a) Compile-time              (b) Run time  
(c) Assembling time      (d) None of these
5. Which of these keyword is used to manually throw an exception ?  
(a) try                                      (b) finally  
(c) throw                              (d) catch
6. Thread priority in Java is :  
(a) integer                              (b) float  
(c) double                              (d) long
7. Which of these classes are used by Byte stream for input and output operation ?  
(a) Input stream              (b) Input output stream  
(c) Reader                              (d) All of the mentioned
8. Which of these class is used to read from byte array ?  
(a) Input Stream  
(b) Buffered Input Stream

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(c) Array Input Stream

(d) Byte Array Input Stream

9. What are the major components of the JDBC ?

(a) Driver manager, Driver, Connection and statement

(b) Driver manager, Driver, Connection, Statement and Resultset

(c) Driver manager, Statement and Resultset

(d) Driver manager, Connection, Statement and Resultset

10. Event class is defined in which of these libraries ?

(a) Java.io (b) Java.lang

(c) Java.net (d) Java.util

## SECTION B

6×5=30

(Short Answer Type Questions)

**Note :** Answer the following questions in **250** words.

### Unit-I

1. Explain the data types in Java.

Or

Explain relational operators of Java.

### Unit-II

2. Explain inheritance with example.

Or

What do you mean by Nested class ? Explain with example.

### Unit-III

3. Explain synchronization of thread with example.

Or

Write a Java program for exception handling using try and catch block.

### Unit-IV

4. What is Wrapper class ? Explain with suitable Java program.

Or

Explain the string and string buffer class with example.

### Unit-V

5. Write short note on JDBC.

Or

Explain Event Handling with example.

## SECTION C

12×5=60

(Long Answer Type Questions)

**Note :** Answer the following questions in **500** words.

**Unit-I**

1. What is object-oriented programming ? Discuss the basic concepts of object-oriented programming.

*Or*

Explain Array in Java and write a Java program to sort the element of one dimensional Array in descending order.

**Unit-II**

2. What is Package ? Explain importing package with example.

*Or*

What is method overriding ? How does it differ from method overloading ? Explain with example.

**Unit-III**

3. Describe the types of exception with example.

*Or*

What is Multithreading ? Explain creation of thread with example.

**Unit-IV**

4. Write a Java program to illustrate byte and character stream.

*Or*

Explain vector with suitable example.

**Unit-V**

5. What do you mean by Delegation event model ? Explain mouse and keyboard event also.

*Or*

Write the steps for setting the JDBC connectivity with database.

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