

63/1 (SEM-3) SEC1/ITBSE3012

2023

INFORMATION TECHNOLOGY

Paper : ITBSE3012

(Programming in Java)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Choose the correct answer from the following (any five) : 1×5=5

(a) Java architecture consists of

(i) JVM

(ii) JRE

(iii) JDK

(iv) All of the above

(2)

(b) Which one of the following is not a feature of Java?

- (i) Object-oriented
- (ii) Use of pointers
- (iii) Portable
- (iv) Dynamic and extensible

(c) Symbol of bitwise OR operator is

- (i) ||
- (ii) &
- (iii) #
- (iv) |

(d) Multiline comments are delimited by

- (i) /
- (ii) //
- (iii) /**/
- (iv) ///

(3)

(e) What is "System" in System.out.print?

- (i) Instance
- (ii) Method
- (iii) Data type
- (iv) Final class

(f) The return value of constructor in Java is

- (i) 1
- (ii) null
- (iii) void
- (iv) instance

(g) _____ is the keyword to inherit a class.

- (i) Super
- (ii) This
- (iii) Extent
- (iv) Extends

(h) If $x=2$, then $x*3-x++\%5=$

(i) 4

(ii) 5

(iii) 6

(iv) 7

(i) Java arises Exception in code sequence during

(i) run time

(ii) compilation time

(iii) Can occur any time

(iv) All of the above

(j) Name the package that contains classes and methods for event handling in Java.

(i) Java.applet

(ii) Java.awt

(iii) Java.event

(iv) Java.awt.event

2. Answer any *five* of the following questions (very short-type) : $2 \times 5 = 10$

(a) What is Java method? How is it declared?

(b) What is Java string buffer class? Give example.

(c) How .equals() method is different from (==)?

(d) What is constructor overloading?

(e) Write the purpose of util package.

(f) What is an uncaught exception?

(g) What is an inner class?

3. Answer any *five* of the following questions (short-type) : $5 \times 5 = 25$

(a) How is Java different from C++?

(b) Explain Scanner class with an example.

(c) What are type casting and type conversion? Explain with an example.

(d) Write a Java program to check whether a number is palindrome or not.

- (e) What are String immutability and Equality?
 - (f) Write a Java program to find the factorial of a given number.
 - (g) What is runnable interface? Explain with example.
 - (h) What are Java Applets? How are applets executed?
 - (i) Explain the Dynamic Method Dispatch.
4. Answer any *one* of the following questions (descriptive/analytical) : 10
- (a) Discuss the three types of variables in Java with suitable examples.
 - (b) Explain Multithreading in detail.
 - (c) Describe Event Handling Mechanisms.

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