

**2021**

*Time : 3 hours*

*Full Marks : 50*

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

*Answer from **all** the Parts as directed.*

**Part – A**

1. Choose the correct option in each of the following :

1×5 = 5

- (i) Which of the following is not a Java feature ?

- (a) Dynamic
- (b) Architecture Neutral
- ☒ (c) Use of pointers
- (d) Object-oriented

- (ii) The size of char data type in JAVA is :

- ☒ (a) One byte

- (b) Two bytes
- (c) Four bytes
- (d) None of these

(iii) When is the object created with new keyword ?

- (a) At run time
- (b) At compile time
- ~~(c)~~ Both (a) and (b)
- (d) None of these

(iv) A package in JAVA is a collection of :

- (a) Classes
- (b) Interfaces
- (c) Classes and interfaces
- (d) None of these

(v) A Thread can be blocked by :

- (a) wait ()
- (b) sleep ()
- (c) suspend ()
- (d) All of these

2. State whether the statements are TRUE or FALSE:

1×5 = 5

- (i) Java programming provides the facility of labelled loops. F.



- (ii) The wrapping of data and methods into a single unit is called inheritance. **F**
- (iii) Java compiler convert the Java source code into bytecode. **T**
- (iv) Finally block in exception handling is executed only when an exception is handled. **F**
- (v) An applet is a JAVA program embedded in a webpage that runs in Web browser. **T**

### Part – B

Answer any **four** questions in about **200** words each :  $3 \times 4 = 12$

- ✓ 3. Write briefly about the data types in JAVA.
- ④ 4. Write short note on **break** and **continue** statements.
- ✓ 5. Explain different types of access modifiers in JAVA.
- ✓ 6. Explain constructors with an example.
- ✓ 7. Briefly explain Method Overloading with an example.
- 8. Write a program to calculate the factorial of a number entered by the user.



### Part – C

Answer any four questions in about 500 words each :

7×4 = 28

- ✓ 9. Enumerate salient features of Java.
10. What is Inheritance ? Explain types of Inheritance in JAVA.
11. Explain exception handling in JAVA with suitable example.
- ✓ 12. What is a Thread ? Describe the life cycle of a Thread with a block diagram.
- ✓ 13. Explain String in JAVA. Enumerate any three methods of String and String Buffer class each with their function.
14. How applet differs from standalone application ? Write a program to display how an applet is embedded in a HTML file.

