

2025

5th Semester Examination (CCFUP : NEP)

BCA

Paper : MJ 8-T (Single Core Major))

(Object Oriented Programming using Java)

Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *five* questions : $2 \times 5 = 10$

- ✓1. Mention two benefits of Object Oriented Programming.
- ✓2. Write the need of interface in Java.
- ✓3. State the role of JVM in Java program execution.
4. Define thread in Java.
- ✓5. Differentiate between == operator and equals () method.
- ✓6. What is constructor? State its purpose.
- ✓7. Declare and initialize a 1D array of 5 integers in Java.
- ✓8. What is package in Java?

P.T.O.





(2)

Group - B

Answer any *four* questions : $5 \times 4 = 20$

9. Explain inheritance in Java programming language with an example.
10. Write down the lifecycle of a thread.
11. Describe the function of data abstraction and encapsulation.
12. Write steps to create and access a user-defined package.
13. Explain exception handling mechanism in Java with an example.
14. Write short notes on wrapper classes and command line arguments. $2\frac{1}{2} + 2\frac{1}{2}$

Group - C

Answer any *one* question : $10 \times 1 = 10$

15. Difference between Final and Finalizer method in Java. How do applet differ from application program? What is Boolean data type? $5 + 3 + 2$
16. (a) What is polymorphism?
(b) Create a class Shape with methods getArea() and getPerimeter(). Derive a class Circle and override these methods. Demonstrate runtime polymorphism. $2 + 8$