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(FOR THE CANDIDATES ADMITTED

DURING THE ACADEMIC YEAR 2024-2027

ONLY)

REG.NO. :

24UAI204

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : May 2025

B.Sc.(Computer Science with AI & ML) SF

SEMESTER- II

MAXIMUM MARKS: 75

TIME : 3 HOURS

**PART - III**

**24UAI204 – Java Programming**

**SECTION – A**

**ANSWER THE FOLLOWING QUESTIONS.**

**(10 X 1 = 10 MARKS)**

**(K1)**

1. Oops decompose a problem into a number of entities called \_\_\_\_\_

- a) Objects
- b) Functions
- c) Classes
- d) Methods of functions

2. Evaluate the value of expression  $6-2+10\%4+7$  \_\_\_\_\_

- a) 14
- b) 12
- c) 13
- d) 10

3. Creating an object from a class is also called \_\_\_\_\_

- a) Initializing
- b) Instantiating
- c) interfacing
- d) importing

4. Which of these keywords is used to define packages in java?

- a) pkg
- b) package
- c) Package
- d) PACK

5. Which of these classes contains the methods used to write in a file?

- a) FileStream
- b) FileInputStream
- c) BUFFEREDOutputStream
- d) FileBufferStream

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES**

**(K2)**

6. What is Software Evolution in Java?

7. What is the other name of Object?.

8. List the types of Inheritance used in Java.

9. Define Packages..

10. What is a File Class in Java?

**(CONT...2)**

**SECTION – B (5 X 5 = 25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Examine in detail the Benefits of OOP, with example.  
**(OR)**

b) Illustrate in detail Applications of OOP with example.

12. a) Solve an Electric Power Distribution Company Charges its domestic customer as follows:

Consumption Unit	Rate of Charge
(i) 0 -200	Rs. 0.50 per unit
(ii) 201-400	Rs.100+0.65 per unit
(iii) 401-600	Rs.230 +0.80 per unit
(iv) Above 600	Rs.390 + 1.00 per unit

Write a Java Program Using else-if-ladder  
**(OR)**

b) Interpret in detail different kinds of Operators in Java with example..

13. a) Apply the concept of Method Overloading with an example Java Program.  
**(OR)**

b) Illustrate the Structure and Implementation of packages with example.

14. a) How will you create your own exception type? Illustrate with example.  
**(OR)**

b) Write a Java Program to Illustrate Synchronization concept in Threads.

15. a) Explain in detail Byte Stream Classes with example.  
**(OR)**

b) Interpret in brief Character Stream Classes with example.

**SECTION – C (5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K4 (Or) K5)**

16. a) Examine in brief Procedure Oriented Programming with example.  
**(OR)**

b) Analyze in brief the Object Oriented Programming with example.

17. a) Summarize the constants,variables and data types available in Java language with example  
**(OR)**

b) Discuss the various control structures in Java with suitable examples.

18. a) Write short notes on Classes and Objects in Java with example  
**(OR)**

b) Interpret a Java Program to Implement Hierarchical Inheritance

19. a) Discuss the various levels of access protection available for packages and their implications.  
**(OR)**

b) Explain the two ways for creating thread with example. .

20. a) Analyse the various I/O Classes in Java with example.  
**(OR)**

b) Discuss in brief the Reading and Writing Characters using Files with example.

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