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| STUDENT NAME | R.ROJA | |
| STUDENT REGISTRATION NUMBER | 251U1R2064 | CLASS: CSE(AIML) |
| PROGRAM | UG | YEAR and TERM: 1 st year & 1 st term |
| SUBJECT NAME | maths | |
| NAME OF THE ASSESSMENT | Reflective journal-6 | |
| DATE OF SUBMISSION | 14.11.25 | |

| Journal Entry Guidelines | Description |
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| 1.Experience (Class Reflection) | <p>On the first day of my Permutations and Combinations class, I felt curious and excited to learn how mathematics can be used to count possibilities in different situations. The teacher started by explaining the difference between arrangements (permutations) and selections (combinations), which helped me understand the basic concept clearly. I was fascinated to see how these ideas apply to real-life problems like forming teams, arranging letters, and solving probability questions. Even though some formulas seemed a bit confusing at first, practicing a few examples made the topic more interesting. Overall, the first class made me realize how logical thinking and simple rules can solve complex counting problems.</p> |
| 2.Feelings (Emotional Reactions) | <p>On the first day of my Permutations and Combinations class, I felt both nervous and excited because I had heard that the topic could be tricky yet fascinating. As the teacher started explaining the difference between arranging and selecting objects, I felt a sense of curiosity growing inside me. When we began solving examples, I was amazed at how mathematics could organize possibilities so neatly. At first, I felt a little confused by the formulas, but as I practiced more, my confidence started to build. By the end of the class, I felt proud, motivated, and eager to learn more about how counting principles can be applied to solve real-world problems.</p> |
| 3. Learning (Key Insights) | <p>Conceptual Difference: I learned that permutations deal with arrangements where order matters, while combinations focus on selections where order does not matter.</p> <p>Counting Principle: The concept of the fundamental principle of counting is the base for understanding how to calculate total possible outcomes.</p> <p>Use of Factorials: I discovered how factorials (n!) are essential in calculating permutations and combinations efficiently.</p> <p>Real-life Applications: These concepts are useful in solving problems related to probability, team formation, password creation, and event arrangements.</p> |

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| | Logical Thinking: The topic strengthened my analytical and problem-solving skills , showing how logic and patterns can simplify complex counting problems. |
| 4.Application (Practical Use) | <p>Password and Code Generation: Used to calculate the number of possible passwords, PINs, or security codes that can be created from a given set of characters.</p> <p>Team and Committee Formation: Helps determine how many ways people can be grouped or selected for specific roles or projects.</p> <p>Seating Arrangements: Used in event planning or logistics to find how many ways people or items can be arranged in order.</p> <p>Lottery and Probability Problems: Helps in calculating the odds of winning or the likelihood of specific outcomes in games of chance.</p> |
| 5.Conclusion | In conclusion, my first day of learning Permutations and Combinations was both challenging and rewarding. I realized that this topic is not just about formulas but about developing logical and analytical thinking. Understanding how to count and arrange possibilities opened my eyes to how mathematics is applied in everyday life, from planning events to designing passwords. Although it seemed confusing at first, with practice I began to appreciate its simplicity and power. Overall, the class inspired me to think more creatively and approach problem-solving with a clear, structured mindset. |