Previous Year Questions Unit Wise| Teaching of Mathematics| D.El.Ed| SCERT Delhi

Unit 2 Algebraic Thinking

2.1 Number Patterns, Algebrization

1. Describe the relationship of 'Arithmetic & Algebra'. Explain the concept of 'variable' with the help of an example. Describe an activity you would undertake with children of class 6 to explain the concept of variable. (3+3+4=10) (2016)
2. How is the number pattern helpful in developing Algebraic thinking in students? Explain using an activity. (5) (2018)

2.2 Functional Relations

1. What is a functional relation? Explain with suitable examples. Write the significance of functional relation in your own words. (1.5+3.5=5) (2022)

2.3 Constants and Variables

1. Explain the term 'Generalisation' in the context of introducing variables. How will you teach the solution of linear equations in one variable? Explain with two suitable examples. (3+3+4=10) (2016)
2. What are 'Variables & Constants'? How will you teach the concept of variables to students of class 6? Explain with suitable activity. (2+3=5) (2017)
3. Explain the term 'Generalisation' in the context of introducing variables. Give details of two activities you would plan to help children understand the concept of variables. (2+8=10) (2018)
4. What do you mean by "Variables & Constants"? Give examples of each. Discuss any two activities that you would undertake to teach the concept of variables to students of class 6. (2+2+6=10) (2019)

2.4 Forming and Solving Simple Linear Equations

1. How will you teach the solution of linear equations with one variable, with the help of suitable activity? (5) (2017)
2. How will you teach the solution of linear equations in one variable to the students? Give suitable activities. (5) (2019)
3. What is a simple linear equation? Express the method of forming it. How will you plan teaching some of the methods of solving linear equations in your class? Explain with a simple example. (2.5+5+2.5=10) (2022)

4. What is the difference between Algebraic Equation and Expression? How will you introduce the concept of Algebraic Expression in class 7? (5) (2022)

2.5 Mathematical Investigations/ Puzzles that rely on Algebraic Thinking

1. Choose any two puzzles based on algebraic thinking. How they are useful to develop algebraic thinking. (2+3=5) (2016)
2. What is algebraic thinking? Discuss various types of mathematical problems that are solved by applying algebraic thinking. (2+3=5) (2017)
3. What do you mean by algebraic thinking? Write any three types of mathematical problems that can be solved by using algebraic thinking. (2+3=5) (2019)
4. What is algebraic thinking? Is it different from critical thinking? How does algebraic thinking help you in understanding:
   a) Geometrical concept related word problem
   b) Puzzle
   Explain with examples. (10) (2022)