EXERCISE OF LESSON-3: FORMULAS AND FUNCTIONS

A. Fill in the blanks:

1. Formulas are used to perform calculations.
2. A formula always begin with a = sign.
3. The cell address in a formula is also called cell reference .
4. The cell address in a formula that does not change on copying is considered as Absolute reference .
5. To use the Sheet reference. You need to enter sheet number with exclamation mark(!) and cell address.
6. Arguments are input to functions, which accept values as numbers or text.
7. A function must be followed by opening and closing parenthesis.

B. State True or False:

1. Formula must begin with ? sign. False
2. In Absolute Referencing, the relative position of rows and columns changes where you copy a formula. False
3. Combined reference is a type of cell reference. False
4. In Absolute Referencing, '$' sign is used before the cell co-ordinates. True
5. Ranges can be used in a formula. True
6. Sheet tab cannot be renamed. False
7. SUM function is used to find sum of values. True

C. Application Based Questions:

1. A sports teacher has measured the height of the students in a class. Saumya has been given the assignment to find the maximum and minimum height of the students. Suggest the function which she should use to accomplish the task.
   MAX() function is used to find the maximum height and MIN() function is used to find out the minimum height of the students.
2. Ms. Priya and her friends got a raise of 10% in their salaries. Find the total amount if the present salary is Rs. 15,000. Calculate the salary by using the formula.
   =15000 + (10/100*15000)

D. Multiple Choice Questions:

1. To use the sheet reference, which address is appropriate out of the following options:
   (a) D4!Sheet1 (b) Sheet1,D4 (c) Sheet1!D4
   Ans. (c)
2. Which key combination is used to get the total of adjacent cells?
   (a) SUM() (b) Ctrl + ' (c) Alt + =
   Ans. (c)
3. Which function finds the largest number in a range?
   (a) AVERAGE() (b) COUNT() (c) MAX()
   Ans. (c)
4. Which function returns the remainder after a number is divided by the divisor?
   (a) MOD (b) POWER (c) SUM
   Ans. (a)
5. Which of the given cell reference can be included in relative reference?
   (a) $D6 (b) A3 (c) A$1
   Ans. (b)

E. Answer the following:

1. What is a formula? Explain with the help of examples.
   Ans. A formula is an expression that can include cell addresses, numbers, arithmetic operators and parenthesis. It must begin with = symbol and may be followed by cell references, operators, constants or functions. For example: =A2+10-SUM(E3:E5)
2. What is cell reference? Mention its types.
   Ans. The cell address in the formula is known as the cell reference. Types of cell reference are – Relative Reference, Absolute Reference and Mixed Reference.
3. What do you know about Absolute reference? Explain with the help of an example.
   Ans. Absolute reference is used when we do not want to change the address of the cell on copying the formula to another cell. To make absolute reference of a formula, you have to add $ sign before the column and row number, for example =d2+d3
4. How will you rename a Sheet tab?
   Ans. To rename a sheet tab, steps are as follows:
   (i) Right click on the sheet tab.
   (ii) Click on the RENAME option.
   (iii) Type the required name and press enter key.
5. What is a range?
   Ans. Range is a rectangular area consisting of group of cells, adjacent to each other. It can be an entire worksheet as well.
6. What do you mean by Function? Name some of the functions.
   Ans. Functions are pre-designed formulas in Excel to perform simple and complex calculations. They accept the arguments and return values. Some of the commonly used functions are: SUM, AVERAGE, MOD, ROUND, POWER, SQRT, INT.
7. What are the rules to enter a function?
   Ans. (i) All Excel functions must begin with = sign.
   (ii) Function name must be a valid Excel name, e.g., SUM, AVERAGE.
   (iii) Function name must be followed by opening and closing parenthesis.
   (iv) Parenthesis contain arguments within it. For example, =SUM(C2:F2)