**Question Set1 for Class 9**

**(Question/Exercise/Activities)**

**Topics – Vector operations, Cascading calculations, circular referencing, functions, ranges,**

**Q1.** Using Excel find the sum of two matrices of dimension 2 by 3 each. Assume the values in the matrix on your own.

**Q2.** Assume you have two matrices A and B each of dimension 2x3. Using array method and referencing method in Excel, compute the matrix C such that C=A+2B



**Q3.** Assume that you have 5 price information about 5 products. Compute the new prices of the products if you slash the price of each product by 13%.

**Q4.** Explain the difference between array method for computing similar computations and copy and paste formula method using references.

**Q5.** Generate the log table

**Q6.** What error is expected if you are asked to generate graph for the following for the value of x ranging from -10 to +10.

1. log value of x
2. exponential value of x
3. inverse of log value of x
4. 1/(1+ex)

Generate the values and plot them as well.

*Hint: A function can be undefined at certain values. LN and EXP are related to each other through the following relationship.* If ex = y then loge(y) = x or LN(y) = x

**Q8.** Find out the roots of a quadratic equation.

*Hint: sqrt*

**Q9.** A shop has decided to give discounts to its customers on the basis of scratch cards. The discount values on the cards is made in such a manner that for every 100 coupons, one is expected to provide a discount between 30%-40%. 10 coupons to provide discount between 10%-20% and rest coupons to provide discount from 0-10%. Generate discount values for your customers.

**Q10.** Explain what care needs to be done while generating numbers using rand or randbetween functions.

**Q11.** How do you fix the random numbers generated by using rand and randbetween functions?

**Q12.** The minimum temperature in two cities is -24℃ and 4℃. Find out the difference in temperature for these two cities.

*Hint: The difference between two quantities is always a positive value.*

**Q13.** A customer takes a tax whose charges are Rs. 12.20 per kilometre. If the customer travels for 12 kilometers, please compute the money customer is to give out in the following scenarios.

1. The taxi driver tells the customer that he does not have change of less than 10 rupees and hence will not be able to return change if it is less than Rs 10.
2. The taxi driver tells the customer that he does not have change of less than Rs10 and hence is ready to forgo the money which is less than Rs. 10.
3. The customer says that it has change but will not give any money less than Rs. 1.
4. The taxi driver tells the customer that he will leave the change if change is less than Rs 5, else he will not return the change.

*Hint: use the functions that do rounding on the value.*

**Q14.** Students collected funds 100 in a fund raiser activity and recorded the student name, class and amount given in a spreadsheet. Compute the following using sum, sumif, subtotal etc.

1. The total fund raised.
2. The total fund raised from first 10 students and last 10 students from the record.
3. The total fund raised from students of class BComH
4. The total fund raised from students of BAEco
5. The average fund given by each student

*Hint:* [*https://www.techonthenet.com/excel/formulas/subtotal.php*](https://www.techonthenet.com/excel/formulas/subtotal.php)