Mathematics
Holiday Assignment-3
Session-2021-22
Class - IX

1. Express the following numbers in the form of $\underline{p}$:

   q

 (a) -25.6875
 (b) 0.621621621..
 (c) 15.712121212..

2. Write one rational & one fractional number between 0.515115111…. and 0.535335333….

3. Write one example each of two irrational numbers whose:
 (a) Sum is a rational number
 (b) Product is an irrational number
 (c) Difference is an irrational number
 (d) Quotient is a rational number

4. Simplify : $[\ \{\ (625)^{-1/2}\ \}^{-1/4}\ ]^{2}$

5. (a) Find the value of x if $2^{x-7} \times 5^{x-4} = 1250$
   (b) Find the value of x and y if:
       $3^{x-1} = 9$ and $4^{y+2} = 64$

6. Find the value of a & b if $\dfrac{5 + 2\sqrt{3}}{7 + 4\sqrt{3}} = a + b\sqrt{3}$

7. If x = 3 + √8, then find the value of $x^{2} + \dfrac{1}{x^{2}}$.