SHORT ANSWER TYPE QUESTIONS- 7 QUESTIONS. (2 Marks each)	
Q1.	Simplify and write in exponential form (a) $(-2)^{-3} \times (-2)^{-4}$ (b) $(3^{-10} \div 3^{-7}) \times 3^4$
Q2.	Find the value of 'm' so that $5^{m+1} \times 5^5 = 5^{12}$
Q3.	Simplify and find the value of $\left(\dfrac{1}{3}\right)^{-2} + \left(\dfrac{1}{4}\right)^{-2} + \left(\dfrac{1}{7}\right)^{-2}$
Q4.	Write the following numbers in the usual form: a) 5.46×10^{-6} b) 3.008×10^7
Q5.	Express 8^{-3} as an exponent with base 2.
Q6.	Find the multiplicative inverse of the following: (a) $\left(\dfrac{1}{4}\right)^{-10}$ (b) $(-5)^4$
Q7.	Write the expanded form of 2376.345 using exponents.
SHORT ANSWER TYPE- 5 QUESTIONS. (3 Marks each)	
Q8.	Find the value of p such that $7^{2p+1} \div 7^4 = 7^7$
Q9.	Simplify : $\left\{5^{-1} + \left(\dfrac{5}{2}\right)^{-1}\right\}^{-1}$
Q10.	Simplify $(3)^{-3} \times \left(\dfrac{1}{3}\right)^{-5} \times \left(\dfrac{1}{3}\right)^{-2}$
Q11.	Find the value of "y" in the following expression: $\left(\dfrac{7}{8}\right)^{-3} \times \left(\dfrac{7}{8}\right)^{-7} \times \left(\dfrac{7}{8}\right)^{5} = \left(\dfrac{7}{8}\right)^{y+4}$

Q12.	Write the following numbers in the standard form:
	   a) 0.00000987
	   b) 679000000000
	   c) 0.000000005001

LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)	

Q.13	Answer the following:
	
	   a) Find the value of 3^{-2}.
	
	   b) Write the multiplicative inverse of 5^3.
	
	   c) Express 216 in the exponential form.
	
	   d) Express 9^{10} as an exponent with base 3

Q14.	Simplify: $\dfrac{(x^m)^2 \times (x^n)^2 \times (x^p)^2}{x^m \times x^n \times x^p}$
Q15.	Simplify: $\dfrac{9^{-5} \times 81 \times 5^2}{3^{-7} \times 10^2}$

ANSWERS					
Q1.	a) $(-2)^{-7}$ b) $(3)^1$	**Q2.**	m =6	**Q3.**	74
Q4.	a) 0.00000546 b) 30080000	**Q5.**	$(2)^{-9}$	**Q6.**	a) $(4)^{-10}$ b) 5^{-4}
Q7.	$2x10^3+3x10^2+7x10^1+6+$ $3 \times (10)^{-1}+4x10^{-2}+$ $5x10^{-3}$	**Q8.**	p=5	**Q9.**	$1\frac{2}{3}$
Q10.	3^4	**Q11.**	y =—9	**Q12.**	a) 9.87×10^{-6} b) 6.79×10^{11} c) 5.001×10^{-9}
Q13.	i) $\frac{1}{9}$ ii) 5^{-3} iii) $2^3 \times 3^3$ iv) 3^{20}	**Q14.**	x^{m+n+p}	**Q15.**	$\frac{3}{4}$