

# APPENDICES

## APPENDIX-A

### CONTENT AND AREA SPECIFICATION

No.	Content Area & Specification		Content Area & Specification
	<b>Rational Numbers</b>		
i.	Definition	b.	$\left(\frac{p}{q}\right)^m \div \left(\frac{p}{q}\right)^n = \left(\frac{p}{q}\right)^{m-n}$
ii.	Equality		$= \frac{1}{\left(\frac{p}{q}\right)^{n-m}}$
iii.	Standard form	c.	$\left[\left(\frac{p}{q}\right)^m\right]^n = \frac{p^{m \times n}}{q}$
iv.	Representation on number line	d.	$\left(\frac{p}{q}\right)^m = \frac{p^m}{q^m}$
v.	Order relation		
vi.	Reciprocal		
vii.	Absolute value		
	<b>Operations on rational numbers</b>	iii.	Negative integral exponent
i.	Addition		
a.	Common denominators		<b>Profit &amp; Loss</b>
b.	Different denominators	-	To find CP when SP & Profit percentage given
ii.	Subtraction	-	Percentage
iii.	Props. of subtraction	-	To find SP when CP and profit Percentage given
iv.	Multiplication	-	To find SP when CP and loss percentage given
v.	Properties of Multiplication	-	To find CP when SP and loss percentage given
vi.	Division		
vii.	Properties		
viii.	Non-terminating decimal representation		
	<b>Exponents</b>		<b>Simple Interest</b>
i.	Definition of $a^n$ , $a$ is rational	-	To find simple interest using the formula $\frac{PRT}{100} = SI$
ii.	Laws of positive exponents		
a.	$\left(\frac{p}{q}\right)^m \times \left(\frac{p}{q}\right)^m = \left(\frac{p}{q}\right)^{m+n}$		

No.	Content Area & Specification		Content Area & Specification
-	To find the principal amount		Factorisation
-	To find the duration, 'time' T	i.	Factorisation by taking common
-	To find the rate of interest 'R'	ii.	Factorisation by grouping
	Expansion of Algebraic Expression	iii.	Factorisation by 'perfect squares' formulae
-	Multiplication of monomial by a Monomial	iv.	Factorisation by difference of two squares formula
-	Multiplication of a binomial by a Monomial	v.	Factorisation by completing the perfect square
-	Multiplication of a binomial by a Binomial		Linear Equations in one variable
	Identities	i.	Transposition
i.	$(a + b)^2 = a^2 + 2ab + b^2$	ii.	Application to problem
ii.	$(a - b)^2 = a^2 - 2ab + b^2$		
iii.	$(a + b)(a - b) = a^2 - b^2$		