

Name: _____					Subject: Mathematics	Class: 11 th	Time: 80 minutes	Total Marks: 40
Chapter No.05		MJDexpert.com				Obtained marks		

Note: Please attempt any 10 short questions from Question 2. Also, attempt both parts of Question 3. Cutting and removal of any content is strictly prohibited.

Question.No.01:- Choose the correct answer.

(10x01=10)

		A.	B.	C.	D.
i.	The $\frac{x^2+x-1}{Q(x)}$ will be improper if:	Degree of $Q(x) = 2$	Degree of $Q(x) = 3$	Degree of $Q(x) = 4$	Degree of $Q(x) = 5$
ii.	Conditional equation $\frac{x-1}{3} = 2$ holds if x is equal to:	8	7	6	5
iii.	When the equality is true for only finite values of unknown x is called:	Identity	Equation	Trigonometric Equation	Algebraic Relation
iv.	A fraction in which the degree of numerator is less than the degree of denominator is called	Algebraic Expression	Improper Fraction	Proper Fraction	Equation
v.	The improper fraction can be changed into proper fraction by:	Addition	Subtraction	Multiplication	Division
vi.	The fraction $\frac{x-3}{x+1}$ is:	Proper	Improper	Identity	Equivalent
vii.	Partial fraction of $\frac{1}{x(x+1)}$ will be of the form:	$\frac{1}{x-1} + \frac{1}{x+1}$	$\frac{1}{x-1} - \frac{1}{x+1}$	$\frac{1}{x} + \frac{1}{x+1}$	$\frac{1}{x} - \frac{1}{x+1}$
viii.	Partial Fraction of $\frac{x^2+1}{x^3+1}$ is.	$\frac{A}{(x+1)} + \frac{B}{(x^2+x+1)}$	$\frac{A}{(x+1)} + \frac{Bx+C}{(x^2-x+1)}$	$\frac{A}{(x+1)} + \frac{Bx+C}{(x^2+x+1)}$	None of these
ix.	An equation which is true for all values of x is called:	Conditional Equation	Identity	Proper Fraction	Improper Fraction
x.	The conditional equation $5x = 4$ is true if $x =$	4	5	$\frac{5}{4}$	$\frac{4}{5}$

Question.No.02:- Solve all parts.

(02x10=20)

i.	Define proper fraction.
ii.	Resolve into partial fraction $\frac{9}{(x+2)^2(x-1)}$.
iii.	Resolve $\frac{1}{x^2-1}$ into partial fraction.
iv.	Resolve into partial fraction $\frac{7x+25}{(x+3)(x+4)}$.
v.	Define rational fraction.
vi.	Resolve into partial fraction $\frac{1}{x^2-1}$.
vii.	Define identity.
viii.	Resolve into partial fraction $\frac{x^2+1}{x^3+1}$ by finding A only.
ix.	Define conditional Equation
x.	The equation of the coefficients of the partial fraction based on which theorem?

Question.No.03:-

(02x05=10)

a)	Resolve $\frac{2x^4}{(x-3)(x+2)^2}$ into partial fraction.
b)	Resolve into partial fraction $\frac{x^2+1}{x^3+1}$.