Name: _____	**Subject:** Math	**Class:** 9th	**Time:** 60 minutes	Total Marks:	**30**
Unit Number: 4	**MJDexpert.com**			Obtained marks	

Q.No.1 Choose the correct Answer. $(6 \times 1 = 6)$

1. (4x+3y-2) is an Algebraic

a) Statement	b) Equation	c) Expression	d) Sentence

2. The degree of $4x^2 + 2x^2y$ is:

a) 2	b) 1	c) 3	d) 4

3. The Conjugate of a+$\sqrt{b}$ is:

a) $\sqrt{a} - \sqrt{b}$	b) $a + \sqrt{b}$	c) $a - \sqrt{b}$	d) $\sqrt{a} + \sqrt{b}$

4. The order of the surd $\sqrt[7]{x}$ is:

a) 2	b) 7	c) 9	d) $\frac{1}{7}$

5. $\sqrt{a} + \sqrt{b})((\sqrt{a} - \sqrt{b})$ =

a) $a + b$	b) $a - b$	c) $a^2 - b^2$	d) $a^2 + b^2$

6. Polynomial is an expression with ____ terms:

a) One	b) Two	c) Three	d) Many

Q.No.2: Give the Short Answers. $(8 \times 2 = 16)$

i.	Simplify $(\sqrt{x} + \sqrt{y})(\sqrt{x} - \sqrt{x})(x + y) (x^2 + y^2)$
ii.	If x=4-$\sqrt{17}$, Find x+$\frac{1}{x}$.
iii.	If $a + b = 5, a - b = \sqrt{17}$ Find "ab".
iv.	Simplify $\frac{9x^2-(x^2-4)^2}{4+3x-x^2}$
v.	Define surd.
vi.	Factorization $x^3 - y^3 - x + y$.
vii.	Rationalize the denominator $\frac{2}{\sqrt{5}-\sqrt{3}}$.
viii.	How can be it told about any rational expression that whether it is in simplest form or not.

Q.No.3: Give the long answers. $(4 + 4 = 8)$

a) If $\frac{\sqrt{3}-1}{\sqrt{3}+1} + \frac{\sqrt{3}+1}{\sqrt{3}-1}$ =a+b$\sqrt{3}$ then Find a, b.

b) If $x + y + z$ =12, $x^2 + y^2 + z^2 = 64$ Find $xy + yz + zx$ =?