6. ALGEBRAIC EXPRESSIONS

I Fill in the blanks :

a. 4xy + 2xy is a _____
(bionomial, trinomial, monomial)
b. The product of twice of 'a' and thrice of 'b' _____
c. The constant term of $12 + 19a^3b^2$ is _____
d. The like terms of a^2b, $-b^2a$, $-5ba^2$, $5ab$, $3a^3b$, $4ab^3$ are _____
e. The value which satisfies an equation is called its _____
f. Algebraic terms that have the same algebraic factors are called _____.
g. The numerical factor of a term is called _____.
h. A _____ is product of factors.
i. Any expression with one or more terms is called a _____.
j. A combination of constants and variables connected by the signs of the fundamental operations is called _____

II.
a. (p-q) – (p+q) = _____
b. _____ should be subtracted from $3x^3 - 1$ to get x^3
c. The sum of -4pqr, 5pqr and 7pqr is _____
d. The (x+2) + (x-2) = _____

III
a. Find the sum of $2x^2 - 3y^2$, $9x^2 + 6y^2$, $-3x^2 - 5y^2$
b. Subtract $(a^2 + b^2 + 2ab)$ from $(a^2 + b^2 – 2ab)$
c. Write the term containing a^2 and find its coefficient
i) $16a^2 – 4b^2 + 10$ ii) $22b^2 - a^2$
d. Simplify $2(x^2 + 2xy) + 5 – xy – y^2$
e. Find the value of the given expressions when a=0, b=-1, c=1
i) $a^3 – b^3$ ii) $a^2 + 2ab + b^3$ iii) $3ab + 3ac + c^2$
iv) $\frac{5a}{10} - 4b$