ST. LAWRENCE HIGH SCHOOL

TOPIC – Polynomials

Subject : Mathematics **Class-9** **First term** **F. M. 15**

WORKSHEET NO. - 18 **Solutions** **Date: 22.03.2021**

Q.1) Choose the correct option: **(1x15=15)**

i) Which of the following expressions is a linear polynomial?
c) 3x + 5

ii) Which of the followings is a quadratic polynomial?
b) (x+1)(x+3)

iii) The polynomial $8x^3 - 4x^2 - 2x + 1$ is
b) divisible by 2x + 1

iv) If the polynomial $x^3 + 6x^2 + 12x + 9$ is divided by x+3, then the remainder will be
a) 0

v) In the polynomial f(x) if f($-\frac{1}{5}$) =0, then one factor of the polynomial f(x) will be
b) 5x + 1

vi) The zeroes of the polynomial $x^2 + x$ are
b) 0, - 1

vii) If the polynomial x^2 –ax— bx + k is divisible by x-a, then the value of k will be
b) ab

viii) If one of the factor of the polynomial $6x^2 + 17x + k$ be (3x + 1), then the value of k will be
d)5

ix) If the polynomial $2x^4 + 3x^3 + 2x^2 + kx + 6$ is divided by (x+ 2) the remainder is 12. Then the value of k is
b) 5

x) The root of the linear polynomial equation f(x) = 3x + 1 is
b) $-\frac{1}{3}$

xi) If $f(x) = x^4 - 2x^3 + x^2 - 2x + 6$, then value of $\frac{f(0)}{f(1)}$ is
a) $\frac{3}{2}$

xii) If $f(x) = \frac{3x-2}{2x-3}$, then which of the following relation is correct?
a)$f(x).f(\frac{1}{x}) = 1$

xiii) The degree of $x^{11} - 5x^8y^6 + 6x^7y^8 + y^{13}$ is
b) 15

xiv) If $f(x) = \frac{b-c}{(x-b)(x-c)} + \frac{c-a}{(x-c)(x-a)} + \frac{a-b}{(x-a)(x-b)}$, then the value of f(0) is
c) 0

xv) If the expression $2x^3 + 2ax - b = 0$ is divisible by $x^2 - 3x + 2$, then
c) a = -7, b = -12

-Chaitali Roy