**Assignment**

**Class 9**

**Ch. 2(Polynomials)**

1. Write the degree of the polynomials:
2. (2x+4)4
3. (t3+3)(t3+9)
4. (x4-8)(x-7)
5. Write the coefficients of x4 and x in 4x3-5x4+2x2+3.
6. Find the zeroes of f(z)=z2-2z
7. Find the product using suitable identities :(4+5x)(4-5x).
8. What is the value of k in polynomial x2+8x+k , if -1 is a zero of the polynomial?
9. Show that x+1 and 2x-3 are factors of 2x3-9x2+x+12.
10. If a2+b2+c2 = 20 and a+b+c = 0 , find ab+bc+ca.
11. If 9x2+25y2 = 181 and xy = -6 , find the value of 3x+5y.
12. Evaluate using identities:
13. 293-113
15. Simplify: (x2+y2-z2)2 – (x2-y2+z2)2
16. Find the value of (x – 1/x) if x2+1/x2 = 38
17. Let P and Q be the remainders when the polynomials x3+2x2-5ax-7 and x3+ax2-12x+6 are divided by x+1 and x-2 respectively. If 2P+Q = 6 , find the value of a.
18. If f(x) = 5x2-4x+5 , find f(1)+f(-1)+f(0).
19. By remainder theorem , find the remainder when p(y) is divided by g(y)
20. p(y) = 4y3-12y2+5y-4 and g(y) = 2y-1
21. P(y) = y-4y-2y+6 and g(y) = 1-y
22. Factorise:
23. a3- 0.216
24. x3-12x(x-4)-64
25. a3- 1/a 3 - 2a +
26. Factorise:
27. x3+13x2+31x-45
28. 4x3+20x2+33x+18
29. Let R1 and R2 are the remainders when the polynomials f(x) = 4x3+3x2-12ax-5 and g(x) = 2x3+ax2-6x-2 are divided by (x-1) and (x-2) respectively. If 3R1+R2-28 = 0 , find the value of a.
30. Factorise: a) 25x2+16y2+4z2-40xy+16yz-20xz.

b) 2a3+8b3-27c3+18abc.