Class – IX	Topic – Factorization

Section B (2 marks)

Factorize:

1. $2x^2 - 7x - 39$ $\qquad\qquad\qquad$ $[(x + 3)(2x - 13)]$

2. $10 + 3x - x^2$ $\qquad\qquad\qquad$ $[(2 + x)(5 - x)]$

3. $24x^3 + 37x^2 - 5x$ $\qquad\qquad\qquad$ $[x(3x + 5)(8x - 1)]$

Section C (3 marks)

Factorize:

4. $5(3a + b)^2 + 6(3a + b) - 8$ $\qquad\qquad$ $[\{5(3a + b) - 4\}\{3a + b + 2\}]$

5. $3(2a - b)^2 - 19(2a - b) + 28$ $\qquad\qquad$ $[\{3(2a - b) - 14\}\{2a - b - 2\}]$

6. $(3x - 2y)^2 + 3(3x - 2) + 10$ $\qquad\qquad$ $[\{3x - 2y - 2\}\{3x - 2y + 5\}]$

Section D (4 marks)

Factorize:

7. $ab(x^2 + y^2) - xy(a^2 + b^2)$ $\qquad\qquad$ $[(ay - bx)(by - ax)]$

8. $a^3 + ab(1 - 2a) - 2b^2$ $\qquad\qquad$ $[(a^2 + b)a - 2b)]$

9. $x^2 + \dfrac{1}{x^2} - 2 - 3x - \dfrac{3}{x}$ $\qquad\qquad$ $\left[\left(x - \dfrac{1}{x}\right)\left(x - \dfrac{1}{x} - 3\right)\right]$

10. $9x^4 - x^2 - 12x - 36$ $\qquad\qquad$ $[(3x^2 + x + 6)(3x^2 - x - 6)]$