

Question Six

$$i) \int x^8 + 4x^3 + 5x - 1 \, dx$$

$$\int (x^8 + 4x^3 + 5x - 1)$$

$$\int \frac{x^9}{9} + x^4 + \frac{5}{2} x^2 - x + C$$

$$ii) \int 3x^2 (x^3 + 2x + 1) \, dx$$

$$\frac{3x^3}{3} \left(\frac{x^4}{4} + \frac{2x^2}{2} + x \right) + C$$

$$\frac{3x^3}{3} \left(\frac{x^4}{4} + x^2 + x \right) + C$$

$$\frac{3}{3} x^3 \left(\frac{x^4}{4} + x^2 + x \right) + C$$