

**Q1.** Let  $f(x) = ax^3 + 5x^2 - bx + 1$ . If  $f(x)$  when divided by  $2x + 1$  leaves 5 as remainder, and  $f'(x)$  is divisible by  $3x - 1$ , then

(a)  $a = 26, b = 10$

(b)  $a = 24, b = 12$

(c)  $a = 26, b = 12$

(d)  $a = 12, b = 24$