

NCERT Maths Solutions by Dev Anoop (Bathinda)

③

$$x^3 - 3x^2 + x + 1$$

here  $A = 1, B = -3, C = 1, D = 1$

Sum of given zeros =  $-\frac{B}{A}$

$$a - b + a + a + b = -\frac{B}{A}$$

$$3a = \frac{3}{1}$$

$$\Rightarrow a = 1$$

Prod. of given zeros =  $-\frac{D}{A}$

$$(a-b)(a)(a+b) = -\frac{1}{1}$$

$$(a^2 - b^2)a = -1$$

$$(1^2 - b^2) \times 1 = -1 \quad (\because a = 1)$$

$$\Rightarrow 1 - b^2 = -1$$

$$\Rightarrow b^2 = 2$$

$$\Rightarrow b = \pm\sqrt{2}$$