30th Dec.'17

10th - CBSE

CT-6M

Section: A

1) $f(x) = k\{x^2 - (\alpha+\beta)x + \alpha\beta\}$, k = constant

$= k\{x^2 - \sqrt{2}x + \frac{1}{3}\}$

2) $P(E') = 1 - P(E)$

$= 1 - 0.05$

$= 0.95$

3) $(x, y) = \left(\frac{mx_2 + nx_1}{m+n}, \frac{my_2 + ny_1}{m+n}\right)$

$= \left(\frac{3(-4) + 2(6)}{3+2}, \frac{3(5) + 2(8)}{3+2}\right)$

$= \left(\frac{-12 + 12}{5}, \frac{15+6}{5}\right)$

$= (0, 21/5)$

Section: B

4) Since the books are to be distributed equally among the students of section A & section-B

∴ The no. of books multiple of 32 as well as 36.

Hence, the required no. of books is

LCM(32, 36).

$32 = 2^5$

$36 = 2^2 \times 3^2$

$\therefore LCM(32, 36) = 2^5 \times 3^2$

$= 288$ books.