

2. The roots of the quadratic equation  $x^2 + 3x - 10 = 0$  are :
- (A) 5, 2 (B) -5, 2  
(C) 5, -2 (D) -5, -2
3. The pair of linear equations  $2kx + 5y = 7$ ,  $6x + 5y = 11$  have a unique solution, if
- (A)  $k \neq 3$  (B)  $k \neq -3$   
(C)  $k \neq \frac{1}{3}$  (D)  $k \neq -\frac{1}{3}$
4. If the mean and mode of a frequency distribution are 28 and 16 respectively, then its median is :
- (A) 22 (B) 23.5  
(C) 24 (D) 24.5
5. A die is rolled once. What is the probability of getting an odd prime number ?
- (A)  $\frac{1}{6}$  (B)  $\frac{1}{3}$   
(C)  $\frac{2}{3}$  (D)  $\frac{3}{4}$
6. If the area of a sector of a circle is  $\frac{1}{8}$  of the area of the circle, then the central angle of the sector is :
- (A)  $30^\circ$  (B)  $45^\circ$   
(C)  $60^\circ$  (D)  $90^\circ$

25. (a) If  $\alpha, \beta$  are zeroes of the quadratic polynomial  $2x^2 + 7x + 5$ , then find the value of  $\alpha^2 + \beta^2 + \alpha\beta$ .

**OR**

- (b) If one zero of the quadratic polynomial  $6x^2 + 37x - (p - 2)$  is reciprocal of the other, then find the value of  $p$ .