

Chapter 7 : Factorisation

ASSESSMENT
Max.Marks : 20

A : Choose the correct alternatives in each of the following :

(1 × 5 = 5)

- The quotient when $(m^2 - 3m - 10)$ is divided by $(m + 2)$ is
 (a) $m - 16$ (b) $m - 14$ (c) $m - 5$ (d) $m + 14$
- If $(x^2 + 5x + 6) \div (x + 3) = y$, then $y =$
 (a) $(x + 2)$ (b) $(x + 3)$ (c) $(x + 4)$ (d) $(x + 1)$
- $81xy \div 3xy =$
 (a) $3xy$ (b) $27xy$ (c) $9xy$ (d) 27
- On dividing $a^2x^2 - 9y^2$ by $ax + 3y$, we get
 (a) $ax - 3y$ (b) $a(x - y)$ (c) a (d) $3a - xy$
- The remainder obtained on dividing $x^3 + 3x^2 - 5x + 4$ by $(x - 1)$ is
 (a) -1 (b) 1 (c) 2 (d) 3

B : Solve the following :

(3 × 5 = 15)

- $(36x^2 + 24x - 30)$ kg of rice is stored in 6 sacks of equal capacity. How many kilograms of rice are there in each sack?
- The area of a rectangle whose length is $(y^2 - y + 1)$ m is $(5y^3 - 6y^2 + 6y + 1)$ m². Find the breadth of the rectangle.
- Find the values of a and b so that $x^4 + x^3 + 8x^2 + ax + b$ is exactly divisible by $(x^2 + 1)$.
- Divide : $x^4 - y^4$ by $(x - y)$.
- The area of a square courtyard is $x^4 + 8x^2y^2 + 16y^4$. Find the length of the side of the courtyard.