Step Academy official

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STUDENT NAME			CLASS	New 1st Year (FSC/ICS)
PAPER CODE	51834		SUBJECT	Mathematics
TIME ALLOWED	60		TOTAL MARKS	25
Paper Date	05-02-2026		Paper Type	

Q1. **Choose the correct answer.** **5X1=5**

1. A fraction in which degree of numerator is less than degree of denominator is called:

(A) Algebric relation   **(B)** Improper fraction   **(C)** Proper fraction   **(D)** Equation

2. $x^2+x-6=0$ is......:

(A) Conditional equation   **(B)** Identity   **(C)** Proper fraction   **(D)** Improper fraction

3. $\dfrac{x^2+1}{q(x)}$ will be proper fraction if degree of q(x) =......:

(A) 0   **(B)** 3   **(C)** 2   **(D)** 1

4. $\dfrac{9}{(x+2)^2(x-1)} = \dfrac{A}{x-1} + \dfrac{B}{x+2} + ...$

(A) $\dfrac{C}{x+2}$ **(B)** $\dfrac{C}{(x+2)^2}$ **(C)** $\dfrac{C}{x-2}$ **(D)** None of these

5. $\dfrac{x^4}{1-x^4}$ is an ......:

(A) Proper fraction   **(B)** Improper fraction   **(C)** Decimal   **(D)** equation

Q2. **write the answers of following questions.** **5X2=10**

1. Resolve the following into partial fraction: $\dfrac{x+1}{(x-1)^2}$

2. Resolve the following into partial fraction: $\dfrac{12x^2-48}{(x-2)^2(x+2)^2}$

3. Resolve $\dfrac{x^2-10x+13}{(x-1)(x^2-5x+6)}$ into partial fractions.

4. Resolve into partial fractions: $\dfrac{2x+1}{(x-2)(x^2+3x+5)}$

5. Resolve into partial fractions: $\dfrac{x^4}{x^4+2x^2+1}$

Q3.   write the answers of following questions.   **2X5=10**

1. Resolve $\dfrac{4x^2}{(x^2+1)^2(x-1)}$ into partial fraction.

2. Resolve into partial fractions: $\dfrac{6x^4+40x^2}{(4-x^2)(x^2+4)^2}$