Multiple Choice

Part - A

1) Which of the following satisfies \( \frac{3u - 4v + w}{2} < 5 \)?
   i) \( u = 7, v = 1, w = 3 \)    ii) \( u = 1, v = -3, w = 7 \)    iii) \( u = -1, v = 7, w = 3 \)    iv) \( u = 7, v = 1, w = -3 \)

2) Which of the following satisfies \((p + q)(p - q) \geq -2\)?
   i) \( p = 8, q = 5 \)    ii) \( p = -4, q = 9 \)    iii) \( p = 5, q = 7 \)    iv) \( p = 3, q = 9 \)

3) Which of the following satisfies \((6m + 4)(5n - 3) > 7\)?
   i) \( m = -3, n = 2 \)    ii) \( m = 4, n = -3 \)    iii) \( m = -2, n = 5 \)    iv) \( m = -3, n = -2 \)

4) Which of the following satisfies \(a^4 + b^3 - ab - 4 \leq 9\)?
   i) \( a = -2, b = 1 \)    ii) \( a = -1, b = 3 \)    iii) \( a = -1, b = 2 \)    iv) \( a = -2, b = 3 \)

1) Which of the following inequality is true at \( r = -2 \) and \( s = -4 \)?
   i) \( \frac{r^2 - rs + 8}{-5} > -5 \)
   ii) \( \frac{r^2 - rs - 8}{5} \geq 5 \)
   iii) \( \frac{r^2 - rs - 8}{5} < -5 \)

2) Which of the following inequality is true at \( x = 1, y = -4 \) and \( z = 3 \)?
   i) \( x^2y(x - z) \geq 9 \)    ii) \( xy^2(x - z) > 7 \)    iii) \( xy^2(x + z) < 7 \)    iv) \( x^2y(x + z) \leq 9 \)

3) Which of the following inequality is true at \( c = 4 \) and \( d = 8 \)?
   i) \( \frac{4cd + c}{d} \leq 12 \)    ii) \( \frac{3cd - d}{c} > 12 \)    iii) \( \frac{3cd + d}{c} < 12 \)    iv) \( \frac{4cd - c}{d} \geq 17 \)
Part - A

1) Which of the following satisfies \( \frac{3u - 4v + w}{2} < 5? \)
   i) \( u = 7, \ v = 1, \ w = 3 \)  ii) \( u = 1, \ v = -3, \ w = 7 \)  iii) \( u = -1, \ v = 7, \ w = 3 \)  iv) \( u = 7, \ v = 1, \ w = -3 \)

2) Which of the following satisfies \( (p + q)(p - q) \geq -2? \)
   i) \( p = 8, \ q = 5 \)  ii) \( p = -4, \ q = 9 \)  iii) \( p = 5, \ q = 7 \)  iv) \( p = 3, \ q = 9 \)

3) Which of the following satisfies \( (6m + 4)(5n - 3) > 7? \)
   i) \( m = -3, \ n = 2 \)  ii) \( m = 4, \ n = -3 \)  iii) \( m = -2, \ n = 5 \)  iv) \( m = -3, \ n = -2 \)

4) Which of the following satisfies \( a^4 + b^3 - ab - 4 \leq 9? \)
   i) \( a = -2, \ b = 1 \)  ii) \( a = -1, \ b = 3 \)  iii) \( a = -1, \ b = 2 \)  iv) \( a = -2, \ b = 3 \)

1) Which of the following inequality is true at \( r = -2 \) and \( s = -4? \)
   i) \( r^2 - rs + 8 > -5 \)  ii) \( r^2 - rs + 8 \geq -5 \)  iii) \( r^2 - rs + 8 \leq -5 \)  iv) \( s^2 - rs - 8 < -5 \)

2) Which of the following inequality is true at \( x = 1, \ y = -4 \) and \( z = 3? \)
   i) \( x^2y(x - z) \geq 9 \)  ii) \( xy^2(x - z) > 7 \)  iii) \( xy^2(x + z) < 7 \)  iv) \( x^2y(x + z) \leq 9 \)

3) Which of the following inequality is true at \( c = 4 \) and \( d = 8? \)
   i) \( \frac{4cd + c}{d} \leq 12 \)  ii) \( \frac{3cd - d}{c} > 12 \)  iii) \( \frac{3cd + d}{c} < 12 \)  iv) \( \frac{4cd - c}{d} \geq 17 \)