

## Question 1

The sequence  $a_1, a_2, a_3, \dots, a_n, \dots$  is such that  $a_1 = -2$ ,  $a_2 = -5$ ,  $a_3 = 4$ ,  $a_4 = 3$ , and  $a_n = a_{n-4}$  for  $n > 4$ .

**Quantity A**

**Quantity B**

The sum of the first 64 terms of the sequence    The sum of the first 98 terms of the sequence

- A Quantity A is greater.
- B Quantity B is greater.
- C The two quantities are equal.
- D The relationship cannot be determined from the information given.

## Question 2

3,  $a$ , 1, 9,  $b$ , 3

The arithmetic mean of the list of numbers above is 4 and  $a$  and  $b$  are integers.

**Quantity A**

**Quantity B**

Median of the list    Mean of the list

- A Quantity A is greater.
- B Quantity B is greater.
- C The two quantities are equal.
- D The relationship cannot be determined from the information given.

### Question 3

$x$  is chosen at random from the set  $\{1, 2, 3, 4\}$  and  $y$  is chosen at random from the set  $\{5, 7, 9\}$ .

**Quantity A**

**Quantity B**

The probability that  $xy$  will be even    The probability that  $(x + y)$  will be even

A    Quantity A is greater.

B    Quantity B is greater.

C    The two quantities are equal.

D    The relationship cannot be determined from the information given.

### Question 4

$$4 < \frac{7-x}{3}$$

**Quantity A**

**Quantity B**

Maximum value of  $-(5 - x)$     Maximum value of  $2x$

A    Quantity A is greater.

B    Quantity B is greater.

C    The two quantities are equal.

D    The relationship cannot be determined from the information given.

## Question 5

$$0 > p > q > r$$

**Quantity A**   **Quantity B**

$$\frac{p}{q}$$

$$\frac{q}{r}$$

A | Quantity A is greater.

B | Quantity B is greater.

C | The two quantities are equal.

D | The relationship cannot be determined from the information given.