Corrigendum/Explanation SFG 2024 Level 2 Test 22

There is 1 change in today's paper (Q.48). In Q.48, the correct answer is Option (b).
Also, some explanations have been provided for the students who have raised doubts.

In Q.48) the correct answer is option (b).
There was a doubt raised regarding statement II of the question that the given question can be answered on the basis of statement II or not.
Explanation: In statement II,

$x^2 > x^4$

$x^2 - x^4 > 0$

$x^2 (1 - x^2) > 0$

As $x^2 > 0$, $1 - x^2 > 0$

$-1 < x < 1$

Hence x can take any value between -1 and 1, therefore, x is not always negative. Therefore, this statement can also alone answer the question.
Therefore, option b will be the correct answer.

For Future Reference:

Q.48) A Question is given followed by two Statements I and II. Consider the Question and the Statements.

Question: Is x always negative?

Statements:

I. $x > x^2$

II. $x^2 > x^4$

Which one of the following is correct in respect of the above Question and the Statements?

a) The Question can be answered by using one of the Statements alone, but cannot be answered using the other Statement alone.

b) The Question can be answered by using either Statement alone.

c) The Question can be answered by using both the Statements together, but cannot be answered using either Statement alone.

d) The Question cannot be answered even by using both the Statements together.

Ans) b

Exp) Option b is the correct answer

Using statement I, $x - x^2 > 0 \Rightarrow x(1 - x) > 0$

$x > 0$ and $1 - x > 0$ or $x < 0$ and $1 - x < 0$

If $x > 0$ and $1 - x > 0$, $0 < x < 1$

If $x < 0$ and $1 - x < 0$, x has no possible value.

$\therefore 0 < x < 1$

Hence, we can say that x is positive and is between 0 to 1. Therefore, it is not always negative.

Statement I is sufficient to answer the Question.

Now, Using statement II,

$x^2 - x^4 > 0$

$x^2 (1 - x^2) > 0$

As $x^2 > 0$, $1 - x^2 > 0$

$-1 < x < 1$

As x can take values of both positive and negative, hence it is not always negative. Therefore, this statement can also alone answer the question.

Hence option b is the correct answer.

In Q.13) There was a doubt raised regarding statement 2 of the question that the cabinet secretary of India has a fixed tenure of two years.
Explanation: Statement 2 is incorrect. The official documents regarding the Cabinet Secretary do not mention a 'fixed' tenure of 2 years for cabinet secretary. S/he is generally by convention appointed for 2 years but the tenure is not fixed as ultimately s/he is a civil servant under the government of India and the rules regarding the tenure of cabinet secretary can be amended by central government as per the administrative convenience.