

## Introduction

The purpose of this filtering test is to test your basic aptitude for programming and understanding of basic mathematical problems. So basically you need not prepare separately for the test, just sit back, relax and take the test as a fun exercise.

The test will be of **2 Hours 30 Minutes** and hence has been divided into 4 sections namely:

Section A - Logical reasoning	20 Marks
Section B - Mathematical Aptitude	20 Marks
Section C - Comprehension Skills	18 Marks
Section D - Coding Test	9 Marks

## Section A - Logical reasoning (20 Marks)

This section is designed to test your logical reasoning and pattern recognition skills. It will contain 10 MCQ type questions of 2 marks each.

### *Sample Question:*

Without resolving anything yourself choose the conclusion which logically follows from the given statement:

Television convinces viewers that the likelihood of their becoming the victim of a violent crime is extremely high; at the same time by its very nature, TV persuades viewers to passively accept whatever happens to them.

Options:

- A) TV viewing promotes criminal behavior.
- B) TV viewers are most likely to be victimized than others.
- C) People should not watch TV.
- D) TV promotes a feeling of helpless vulnerability in viewers.

Ans: .....

Correct Answer: D

## Section B - Mathematical Aptitude (20 Marks)

This section will contain comparatively trickier problems to test their problem solving ability and mathematical aptitude. This section will contain 5 Integer type questions of 4 marks each.

### *Sample Question:*

A leap year is any year that's evenly divisible by 4, unless it's divisible by 100 in which case it isn't, except when it's also divisible by 400 in which case it is. What is the probability that a year chosen at random is a leap year?

Ans: ....

Correct Answer: 0.2425

## Section C - Comprehension Skills (18 Marks)

This section tests your comprehensive skills and data extraction and implementation. You'll be given 2 comprehensions and 3 questions each based on 2 comprehension. So basically this section will contain 6 questions of 3 marks each.

### *Sample Question:*

Gargi leaves home with  $x$  flowers, goes to the bank of a nearby river. On the bank of the river, there are four places of worship, standing in a row. She dips all the  $x$  flowers into the river, the number of flowers doubles. Then, she enters the first place of worship, offers  $y$  flowers to the deity. She dips the remaining flowers into the river, and again the number of flowers doubles. She goes to the second place of worship, offers  $y$  flowers to the deity. She dips the remaining flowers into the river, and again the number of flowers doubles. She goes to the third place of worship, offers  $y$  flowers to the deity. She dips the remaining flowers into the river, and again the number of flowers doubles. She goes to the fourth place of worship, offers  $y$  flowers to the deity. Now she is left with no flowers in hand.

Q. If Gargi leaves home with 45 flowers, the number of flowers she offers to each deity is:

Options:

- A) 45
- B) 48 (CA)
- C) 50
- D) 46

Correct Answer: B

## Section D - Coding Test (9 Marks)

Don't be scared we do not aim to test your coding skills before the test. We believe in teaching coding from scratch. This section just aims to test your understanding of programming syntax, even if you're new to programming you can crack this section very easily with basic logics and you can refer to this [link](#) for basic syntax understanding and try this sample question on our platform. This section will contain 3 questions of 3 marks each.

### *Sample Question:*

Given a number  $N$  find the factorial of  $N$  i.e.  $N!$

Factorial of  $N$  or  $N! = N \times (N-1) \times (N-2) \times \dots \times 1$

This is a functional question. You're being provided an integer as an argument of the function and the return type should be an integer answer representing factorial of  $N$ .

Sample Input: 5

Sample Output: 120

**Note:** To qualify and to be considered for this course, you need to clear the minimum cut off in each section but also we encourage spending free time on sections depending on your interests.