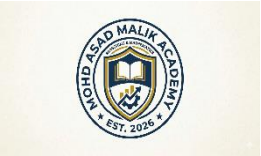
MOHD ASAD MALIK ACADEMY Specialized Reasoning & Mathematics Coaching



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SUBJECT: QUANTITATIVE APTITUDE (MATHEMATICS)

TOPIC: NUMBER SYSTEM (PRACTICE WORKSHEET - 01)

TARGET EXAMS: JKSSB (SI, Patwari, Supervisor) & JKPSC Aspirants

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QUICK FORMULA REVISION:

1. Sum of first 'n' natural numbers = [n * (n + 1)] / 2

2. First Prime Number = 2 (It is the only even prime number)

3. To check unit digit of powers, divide the power by 4 (Cyclicity of 4).

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PRACTICE QUESTIONS

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Q1. What is the sum of the first 40 natural numbers?

A) 820

B) 840

C) 780

D) 900

Q2. Find the unit digit in the product: (2137)^754

A) 1

B) 3

C) 7

D) 9

Q3. What is the difference between the local value (place value)

and the face value of 7 in the number 65782?

A) 0

B) 782

C) 693

D) 700

Q4. Which of the following is a prime number?

A) 119

B) 187

C) 247

D) 179

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ANSWERS & EXPLANATIONS

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Ans 1. Correct Option: A (820)

Explanation: Using Formula = [n * (n + 1)] / 2, where n = 40.

Sum = [40 * 41] / 2 = 20 * 41 = 820.

Ans 2. Correct Option: D (9)

Explanation: We only look at the unit digit (7) and the power (754).

Divide power by 4 to find the remainder: 754 ÷ 4 gives a remainder of 2.

Therefore, 7^2 = 49. The unit digit is 9.

Ans 3. Correct Option: C (693)

Explanation:

In 65782, Place Value of 7 = 700 (since it is in the hundreds place).

Face Value of 7 = 7 (the value of the digit itself).

Difference = 700 - 7 = 693.

Ans 4. Correct Option: D (179)

Explanation:

119 is divisible by 7 (7 * 17)

187 is divisible by 11 (11 * 17)

247 is divisible by 13 (13 * 19)

179 is not divisible by any prime number less than its square root, so it is prime.