Day 1 – Basics of Aptitude (Foundation)

Topics for Day 1

- **Number Systems(Divisibility, HCF/LCM, Modular arithmetic)**
- **Percentages & Ratios basics**
- **Reading Comprehension (short passages)**
- **Introduction to Pseudocode (if/else, loops basics)**

1. Number Systems

Divisibility Rules (Shortcuts)

- Divisible by 2 → Lastdigiteven
- Divisible by 3 → Sumofdigitsdivisible by 3
- Divisible by 4 → Last2digitsdivisible by 4
- Divisible by 5 → Endswith0or5
- Divisible by 6 → Divisibleby2and3
- Divisible by 8 → Last3digitsdivisible by 8
- Divisible by 9 → Sumofdigitsdivisible by 9
- Divisible by 11 → (Sumofoddpositions – even positions) divisible by 11

■ ***Example 1: Divisibility***

Is 4356 divisible by 11? Odd pos sum=9, Even pos sum=9, Diff=0 → divisible
✓ Answer: Yes

■ ***Example 2: HCF & LCM***

Find HCF & LCM of 24 and 36. HCF=12, LCM=72
■ Shortcut: LCM × HCF = Product of numbers

■ ***Example 3: Modular Arithmetic***

Find remainder when 2^1■ ÷ 7. Pattern repeats (2,4,1). 10 mod 3=1 → remainder=2
✓ Answer: 2

2. Percentages & Ratios

Shortcuts

- 50% = 1/2
- 25% = 1/4
- 20% = 1/5
- 12.5% = 1/8
- Ratio a:b → (a/(a+b))×100 gives %

■ ***Example 1: Percentage***

Laptop = 40,000. Reduced by 10% → 36,000

■ ***Example 2: Ratio***

■1,200 divided in ratio 5:3 → 750 and 450

■ ***Example 3: Ratio to Percentage***

Ratio 7:3 → 70% and 30%

■ ***Example 4: Successive % Change***

Increase 20%, decrease 10%. Net = 20-10-2=8% increase

3. Reading Comprehension (RC)

Passage: Infosys conducts aptitude and reasoning tests... communication skills to crack the exam.

- Q1: What type of tests does Infosys conduct? ✓ Aptitude & Reasoning
- Q2: What skills are important? ✓ Quantitative, logical, communication
- Q3: Which is NOT mentioned? ✓ Sports

RC Shortcuts

- Read questions first
- Highlight keywords
- Use elimination method

4. Pseudocode Basics

- ***Example 1 – If/Else***

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Input N
If N%2==0 → Even else Odd
```

- ***Example 2 – Loop (1–10)***

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For i=1 to 10 → Print i
```

- ***Example 3 – Factorial***

```
Input N
Fact=1
For i=1..N Fact=Fact*i
```

- ***Example 4 – Prime Check***

```
Input N
Check divisibility 2..N/2
If divisible → Not Prime else Prime
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Day 1 – Tasks

Aptitude Tasks

- Solve 20 divisibility questions Solve 10
- HCF/LCM problems Solve 10 modular
- arithmetic problems

Percentages & Ratios Tasks

- Solve 15 percentage problems
- Solve 10 ratio division problems
- Solve 5 successive % change problems

Verbal Tasks

- Attempt 2 RC passages (10 Q each)
- Note 10 new words with synonyms & antonyms

Pseudocode Tasks

- Write pseudocode for sum of first N natural numbers
- Write pseudocode for largest of 3 numbers
- Write pseudocode for multiplication table of N

By the end of Day 1, you should:

- Understand divisibility,HCF/LCM,% basics
- Solve basic RC questions quickly
- Write simple pseudocode with loops & conditions

Suggested Time Allocation

- Aptitude → 40 mins
- RC/Verbal → 20 mins
- Pseudocode → 30 mins