Quantitative Aptitude

Partnership

S. No.	Concept / Formula	Explanation	Example
1	**Types of Partnership** • Simple • Compound	- Simple: same time- Compound: different times	**Simple:** A & B invest ₹5000 each for 12 months → equal profit share.**Compound:** A invests for 12 months, B for 6 months → profits not equally divided.
2	**Profit Ratio** Profit ∝ Capital × Time	Multiply capital and time to find profit ratio	A: ₹6000 for 12 months → 6000×12 = 72000B: ₹8000 for 6 months → 8000×6 = 48000Ratio = 72000:48000 = **3:2**
3	**Individual Share of Profit** Partner's share = Total Profit × Ratio share	Apply the ratio on total profit	Total Profit = ₹2500Profit ratio A:B = 3:2A's share = ₹2500 × 3/5 = ₹1500B's share = ₹1000
4	**Capital when Profit & Time are known** Capital ∝ Profit / Time	Reverse use of the profit formula	A & B share profit in 4:5Time = 6 months (same)So, Capital ratio A:B = 4:5
5	**Equivalent Capital** Capital × Time = Equivalent Capital	Used to make fair comparisons	A: ₹2000 for 10 months = 20000B: ₹2500 for 8 months = 20000 → Equal profits
6	**Incoming Partner's Goodwill Share** Goodwill Share = Share × Total Goodwill	Used when a new partner pays to join	Goodwill = ₹60,000C gets 1/4th share⇒ C pays 1/4 × 60,000 = **₹15,000**
7	**Change in Capital** Recalculate capital after changes	Track changes in investment periods	A invests ₹4000 for 4 months, then ₹6000 for 8 months Total = (4000×4) + (6000×8) = **16,000 + 48,000 = ₹64,000**
8	**Sleeping Partner**	Doesn't participate in work, only capital	A (working), B (sleeping). Both invest equally for 12 months → Equal profit if no salary.
9	**Working Partner** May receive salary or commission	Active in management & gets fixed benefits	A & B are equal partnersA gets ₹200/month as salary for 12 months = ₹2400Subtract ₹2400 from profit, rest is shared.
10	**Salary to Working Partner** Deduct salary before profit division	Profit is adjusted before sharing	Profit = ₹12,000A gets salary ₹2000 Remaining ₹10,000 shared in 3:2 ratio
11	**Average Capital** Use: Σ(Capital × Time)	Use when investments vary over time	A invests ₹5000 for 6 months + ₹7000 for 6 months Total = (5000×6) + (7000×6) = ₹72,000
12	**New Partner Admission** New Share = (Capital × Time) / Total	Calculate adjusted profit ratio after joining	A: ₹6000 for 12 months → 72000B: ₹4000 for 12 months → 48000C joins with ₹5000 for 6 months → 30000 New ratio A:B:C = 72000:48000:30000 = **12:8:5**

Partnership (Working and Sleeping Partners)

No.	Concept	Formula	Example (with Solution)
1	**Profit Sharing Ratio**	Partner's Share = (Capital × Time) / Total (Capital × Time)	A invests ₹20,000, B invests ₹30,000 for 12 months. Profit = ₹25,000 ➤ A:B = (20k×12):(30k×12) = 240k:360k = 2:3 ➤ A's share = ₹10,000; B's share = ₹15,000

2	**Salary to Working Partner**	1. Pay Salary/Commission First2. Divide Remaining Profit as per Capital × Time	A and B invest ₹25,000 each. A is working and gets ₹2,000/month for 4 months. Profit = ₹14,000 ➤ Salary to A = ₹8,000 ➤ Remaining = ₹6,000 ➤ Capital ratio = 1:1 → A & B get ₹3,000 each ➤ Final: A = ₹11,000, B = ₹3,000
3	**Commission to Working Partner**	Working Partner gets % of total profit as commission; rest divided in capital ratio	X (sleeping) invests ₹40,000, Y (working) invests ₹60,000. Y gets 10% commission. Profit = ₹50,000 ➤ Commission = ₹5,000 ➤ Remaining = ₹45,000 ➤ Capital ratio = 4:6 = 2:3 ➤ X = ₹18,000; Y = ₹27,000 + ₹5,000 = ₹32,000

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