20 One-Liners to Remember

Quick-fire facts for last-minute revision.

1. **Simple Interest is computed as SI = (P x R x T) / 100 on the original principal only, never on accumulated interest.**
   P is principal, R the rate percent per annum and T the time in years; interest is never reinvested, so it stays a fixed percentage of the starting principal for the whole tenure.

2. **Compound interest uses A = P x (1 + r/100)^n, charging interest on principal plus accumulated interest.**
   Because interest is reinvested each period, FDs, RDs, loan amortisation and bond valuation all rest on compounding rather than simple interest.

3. **For compounding more than once a year, A = P x (1 + r/(100 x m))^(m x n), and a higher m gives a higher effective yield.**
   You divide the rate by the number of periods m and multiply the exponent by m; m is 2 half-yearly, 4 quarterly, 12 monthly and 365 daily.

4. **Continuous compounding is A = P x e^(r x t), with e approx 2.71828 and r entered in decimal form.**
   It is the theoretical upper limit of compounding as frequency approaches infinity, and 8 percent must be entered as 0.08, not 8.

5 **Continuous compounding underpins Black-Scholes option pricing and several treasury and risk valuation models.**

Though a foundational JAIIB formula, it is applied further in CAIIB Treasury, making it more than a purely academic construct.

6 **The Rule of 72 estimates doubling time as approximately 72 / r under annual compounding.**

It is a mental-math shortcut used in deposit marketing and financial planning, and is an approximation rather than an exact figure.

7 **A fixed rate stays constant for the entire tenure while a floating rate resets periodically with its benchmark.**

Fixed rates carry no benchmark linkage and shift market-rate risk to the lender, so they are typically priced higher than floating rates at origination.

8 **Under the EBLR regime, floating-rate loans must be reset at least once every 3 months.**

This is the regulatory minimum reset frequency; the borrower's rate equals the external benchmark plus a spread.

9 **New floating-rate personal, retail and Micro & Small Enterprise loans have been externally benchmarked since 1 October 2019.**

Medium Enterprise loans came under the external-benchmark requirement from 1 April 2020, most banks linking to the RBI Repo Rate.

10 **As per the June 2026 MPC the Repo Rate is 5.25 percent, with SDF at 5.00 percent and MSF and Bank Rate at 5.50 percent.**

SBI's EBR of 7.90 percent is built as the 5.25 percent repo plus a 2.65 percent spread, and is the floor benchmark rather than the final quoted rate.

11 **Under RBI's Pre-payment Charges Directions, 2025, floating-rate non-business loans to individuals carry no prepayment charge from any lender.**

For loans sanctioned or renewed on or after 1 January 2026, the bar applies irrespective of the source of funds, to part or full prepayment, with no lock-in.

12 **Front-end interest is deducted upfront from the disbursed principal, while back-end interest is charged periodically on actual balances.**

Front-end is typical of bill discounting and certain L/Cs; back-end applies to term loans, cash credit and working capital.

13 **Front-end interest makes the effective rate exceed the nominal rate because interest is computed on the gross amount.**

The borrower receives only the net proceeds yet pays interest on money he never held, so the true cost is higher than the stated rate.

14 **In an ordinary annuity payments fall at the end of each period; in an annuity due they fall at the beginning.**
Bond coupons, month-end EMIs and RD instalments are ordinary annuities, whereas rent in advance and insurance premiums are annuities due.

15 **Future value of an ordinary annuity is FV = C x [((1+i)^n - 1) / i].**
C is the cash flow per period, i the periodic rate in decimal and n the number of payments; it drives recurring-deposit maturity calculations.

16 **Present value of an ordinary annuity is PV = C x [(1 - (1+i)^-n) / i].**
It discounts future end-of-period payments to today and is the basis of bond pricing and loan-against-EMI sanction.

17 **An annuity due is worth (1+i) times its ordinary equivalent for both future and present value.**
FV(due) = FV(ordinary) x (1+i) and PV(due) = PV(ordinary) x (1+i), since each cash flow shifts one period earlier.

18 **EMI is EMI = P x r x (1+r)^n / [(1+r)^n - 1], with r the rate per instalment period.**
For monthly EMIs r is the annual rate divided by 12 and n is the number of instalments; the instalment stays identical throughout.

19 **Under EMI, early instalments are interest-heavy and later ones principal-heavy, though the instalment stays level.**

As the outstanding balance falls the interest portion shrinks and the principal portion rises, keeping the total EMI constant.

20 **A sinking-fund deposit is C = FV x i / [(1+i)^n - 1], used to accumulate a bullet or balloon repayment.**

A fixed periodic deposit grows to exactly the target lump sum by the maturity date, discharging the full principal that falls due at once.