Sr.No.	Parameter	Calculation methodology / formulae
1	**Total Expense Ratio**	Weighted Average i.e. Total Expense of the month / Average Asset / number of days in month * days in a year
2	**Sharpe Ratio**	(Ri-Rf)/Stdev of Fund returns Where, Ri= Fund Return Rf = Risk free Return (TREPs) TREPs would serve as a more appropriate risk free rate instead of MIBOR as Mutual Funds deploy idle cash in TREPs.
3	**Beta Ratio**	Covariance of NAV returns vs Index returns/ Variance of Index returns Further, for Beta, as Benchmark Total Return may not be easily available /calculated, price return is suggested to be used.
4	**Standard Deviation of Returns**	Standard Deviation should reflect for the Fund as well as the relevant benchmark – $s = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$ where, s = Standard Deviation x is the return series $\bar{X}$ is the mean of the return series N is the no of values ***Note:*** *Standard Deviation of returns may be measured considering the data using the formula STDEV.S() in Microsoft Excel*
5	**Modified Duration**	= Macaulay Duration / (1 + Annualised Yield)
6	**Macaulay Duration**	Macaulay Duration is a measure of the average time it takes to receive a bond's cash flows. It is calculated by summing up all the multiples of the present values of cash flows and corresponding time periods and then dividing the sum by the market bond price. It can be calculated using the following formula: $\text{Macaulay Duration} = \frac{\sum_{t=1}^{n} PV(CF_t) * t}{\text{Market Bond Price}} = \frac{\sum_{t=1}^{n} \frac{t * C}{(1+Y)^t} + \frac{n * M}{(1+Y)^t}}{\text{Market Bond Price}}$ Where: • **PV(CF_t)** – Present value of cash flow (coupon) at period t • **t** – Time period for each cash flow • **C** – Periodic coupon payment • **n** – Total number of periods to maturity • **M** – the Bond's maturity value • **Y** – Periodic yield
7	**Portfolio Turnover Ratio (Not applicable to Passive Funds)**	Calculation method: Lower of purchase or sale during the period/Average AUM for the period. The period to be considered is last one year. TREPS/CBLO/Repo/FD/Margin FD/ MFU/SLB are not considered for purchase and sale. Should include Fixed income securities and Equity derivatives

8	**Average Maturity**	Weighted avg maturity of the assets
9	**Portfolio Yield**	Weighted Average valuation yield of the assets – Disclosure required only for Debt funds.
10	**Risk Free Return**	TREPs would serve as a more appropriate risk free rate instead of currently used MIBOR as Mutual Funds deploy idle cash in TREPs. Risk Free Return to be taken as WAR TREP of the last working day.
11	**Tracking Error**	**Step 1:** Obtain the NAV values and the TR Index values for each day of the total time period required **Step 2:** Calculate the percentage change in the NAV and TR Index for each day over its previous day Percentage change in the NAV = $\frac{\text{NAV as on day (t)} - \text{NAV as on day(t-1)}}{\text{NAV as on day (t-1)}}$ **Step 3:** Calculate the difference between the percentage change in the NAV and the percentage change in the TR Index for each day **Step 4:** Calculate the standard deviation of the difference obtained from day(1) to day(n) in **Step 5:** Calculate the Annualised Tracking error as per the formula given below *Annualised Tracking Error = Standard Deviation (obtained as per Step 4) sqrt (250)*
12	**Tracking Difference**	Tracking Difference = Scheme returns – Benchmark index returns

Note

a. Standard Deviation, Beta and Tracking Error should be computed taking similar data points.

b. For Schemes that have completed 3 years, 3-year data shall be provided; and for Schemes that have completed more than 1 year but not completed 3 years1-year data shall be provided.

c. For Fund of Funds and International Equity Funds these measures are not required to be reflected.

Terminology	Explanation
AUM	AUM or assets under management refers to the recent / updated cumulative market value of investments managed by a mutual fund or any investment firm.
Benchmark Index	A benchmark is often a market index, or a combination of indices that investors and portfolio managers use to measure an investment portfolio's performance. An index tracks the performance of a broad asset class, such as stocks of companies listed on stock exchanges, whose performance is used as a reference point / standard or benchmark to measure investment performance of mutual funds, among other investments. Some typical benchmarks include the Nifty 50, Sensex, BSE 200, BSE 500, Crisil 10Year Gilt Index.
Beta	Beta is a measure of an investment's volatility vis-à-vis the market. Beta of less than 1 means that the security will be less volatile than the market. A beta of greater than 1 implies that the security's price will be more volatile than the market.
Exit Load	Exit load is charged at the time an investor redeems the units of a mutual fund. The exit load is reduced from the prevailing NAV at the time of redemption. The investor will receive redemption proceeds at net value of NAV less Exit load. For example, if the NAV is ₹100 and the exit load is 1%, the investor will receive ₹99 per unit as redemption amount.
Fund Manager	An employee of the asset management company, who manages investments of the scheme. She/he is usually part of a larger team of fund managers and research analysts.
Holdings or Portfolio	The holdings or the portfolio is the set of underlying securities in which a mutual fund scheme's corpus is invested in. The objective is to give investors an idea of where their money has been invested by the fund manager.
Macaulay Duration	Macaulay Duration is a measure of the average time it takes to receive a bond's cash flows. It is calculated by summing up all the multiples of the present values of cash flows and corresponding time periods and then dividing the sum by the market bond price.
Minimum Investment	This is the minimum amount which a new investor in a mutual fund scheme is required invest while making lumpsum investment for the first time in the scheme.
Minimum SIP Amount	This is the minimum investment instalment amount which an investor is required to make for investing in a mutual fund scheme via Systematic Investment Plan (SIP).
Modified Duration	Modified duration is the price sensitivity and the percentage change in price for a unit change in yield.
NAV	The NAV or the net asset value is the total asset value per unit of the mutual fund after deducting all related and permissible expenses. The NAV is

	calculated at the end of every business day. It is the value at which the investor enters or exits the mutual fund.
Rating Profile	Mutual funds invest in securities after evaluating their creditworthiness as disclosed by the ratings. A depiction of the mutual fund in various investments based on their ratings becomes the rating profile of the fund. These ratings are provided by Credit Rating Agencies (CRAs) in India and are based on the maturity of the underlying debt instruments. Short Term Rating are issued by CRA for debt instruments with an original maturity period of up to one year. While Long Term Rating are issued for debt instruments with an original maturity period of one year & above.
Scheme Category	A mutual fund scheme category is the classification of mutual fund schemes based on their underlying assets, risk profile, or investment objective, such as Equity, Debt, Hybrid, Thematic/Sectoral schemes, Solution oriented schemes and ETFs/Index Funds, etc.
Sharpe Ratio	The Sharpe Ratio, named after its founder, the Nobel Laureate William Sharpe, is a measure of risk-adjusted returns. It is calculated using standard deviation and excess return to determine reward per unit of risk.
SIP	SIP or Systematic Investment Plan is a method of investing a fixed amount in a mutual fund scheme at a regular / pre-defined intervals/ frequency (similar to recurring deposit in banks), and can be availed by the investor by giving a mandate (standing instructions) to the mutual fund to receive the money from the investor's bankers to whom the debit mandate is provided by the investor for investing the SIP instalment in the desired mutual fund scheme.
Standard Deviation	Standard deviation is a statistical measure of the range of an investment's performance. When a mutual fund has a high standard deviation, it means it's range of performance is wide, implying greater volatility.
Tracking Difference	Tracking differences, i.e. the annualized difference of daily returns between the index or goods and the NAV of the ETF/ Index
Tracking Error	A divergence between the price behavior of a position or a portfolio and the price behavior of the benchmark.
Yield to Maturity	The Yield to Maturity or the YTM is the rate of return anticipated on a bond if held until maturity. YTM is expressed as an annual rate. The YTM factors in the bond's current market price, par value, coupon interest rate and time to maturity.
Information Ratio	The Information Ratio (IR) is a financial metric used to evaluate the risk-adjusted return of a mutual fund. It tells investors whether a fund manager is delivering returns higher than the benchmark and how consistently they are doing so. A higher IR indicates better fund performance with stable excess returns, while a lower IR suggests high volatility or underperformance compared to the benchmark.

Mutual fund investments are subject to market risks, read all scheme related documents carefully.