1)

Let us start by analysing the three funds (A, B, C) based on Mr. X's risk profile and desired returns. We will create a scenario table for each fund, considering the given information.

For his investment, he is looking for a compounded growth rate on his investment from 15%-18%

Time frame = 5 years

Debt rate = 7%

Equity rate = 13.5%

Note: there is short-term volatility in the future & options market.

Fund A:

Risk Score – 40/100

Asset Class	Allocation	Expected Return	Weighted Return
Dept	50%	7%	3.5%
Equity	30%	13.5%	4.05%
Futures & options	20%	Y (let)	Y %

Fund B:

Risk Score – 55/100

Asset Class	Allocation	Expected Return	Weighted Return
Dept	40%	7%	2.8%
Equity	40%	13.5%	5.4%
Futures & options	20%	Y (let)	Y %

Fund C:

Risk Score – 65/100

Asset Class	Allocation	Expected Return	Weighted Return
Dept	40%	7%	2.1%
Equity	30%	13.5%	5.4%
Futures & options	30%	R (let)	Y %

Determining Targeted Return for Futures & Options:

Mr. X is targeting a CAGR between 15% and 18%. Let us assume the targeted return for Futures & Options is Y%.

For Fund A, the equation becomes: $3.5\% + 4.05\% + Y\% \geq 15\%$

$$\mathbf{Y\,\% \geq 7.45\%}$$

For Fund B, the equation becomes: $2.8\% + 5.4\% + Y\% \geq 15\%$

$$\mathbf{Y\,\% \geq 6.8\%}$$

For Fund C, the equation becomes: $2.1\% + 5.4\% + Y\% \geq 15\%$

$$\mathbf{Y\,\% \geq 7.5\%}$$

2) Considering Mr. X's increased risk tolerance and the need for higher returns, **Fund C** seems to align well with his current risk profile. It offers a balanced allocation with a higher proportion in equity and futures & options, suitable for someone with a risk-neutral stance. The risk score of 65/100 indicates a willingness to take on more risk for potential higher returns.

   Fund C is recommended for Mr. X given its alignment with his increased risk tolerance. To achieve the desired CAGR, Mr. X should target returns of at least 7.5% from the Futures & Options component within Fund C. This strategy provides a balanced approach, taking advantage of potential market opportunities while considering Mr. X's risk-neutral stance.

   In conclusion, Fund C, with the suggested targeted return for Futures & Options, seems to be the most suitable choice for Mr. X's current risk profile and investment goals. Always, it is crucial for Mr. X to monitor the market conditions and reassess his portfolio periodically to ensure alignment with his financial objectives.

3)

Optimal Investment Strategy (20% Allocation to Each Asset Class)

Equity: 20%

Debt: 20%

Futures & Options: 20%

<u>Part A:</u>

For Indian Mutual Fund, I recommend the **HDFC Balanced Advantage Fund**. This find is known for dynamically managing its equity and dept exposure based in market conditions.

Allocation:

Dept- 10%

Equity- 10%

This find has delivered an average return of approximately 12% over the past **5 years**.

The fund is managed by Prashant Jain, who has extensive experience in fund management and is known for his disciplined investment approach.

<u>Reason</u>: The HDFC Balanced Advantage Fund aligns with Mr. X's risk profile and provides a balanced exposure to debt and equity. The dynamic allocation strategy allows the fund to adapt to market conditions, potentially offering a smoother investment journey. Prashant Jain's expertise adds credibility to the fund's management.

<u>Part B</u>:

Futures & Options Trading Strategy

Given the short-term volatility in the futures & options market, it is advisable to be cautious. Allocate 10% of the portfolio to Futures & Options to enhance returns.

Expected Portfolio Return

Asset Class	Expected Return	Weighted Return
Debt	7%	1.4%
Equity	13.5%	2.7%
Futures & Options	20%	2%

Total Expected Return = 1.4% + 2.7% + 2%

Total Expected Return = **6.1% (approx.)**

This strategy aims to achieve Mr. X's desired CAGR of 15% - 18% with a well-balanced and diversified approach. The HDFC Balanced Advantage Fund provides stability and potential growth in the debt and equity segments, while the allocation to Futures & Options allows for an additional avenue to enhance returns.

As with any investment strategy, Mr. X should stay informed about market conditions, regularly review his portfolio, and be prepared to adapt to changes in the financial landscape.