Section A: MCQ [1 point each]

1. What is a reasonable value for short borrow costs on general collateral stocks?
    a. 35 bps per year
    b. 35 bps per day
    c. 3.5% per year
    d. 3.5% per day

2. Which of the following is usually **not** one of the hyperparameters to be fitted in simulating a pairs trading strategy?
    a. Stop loss in terms of s.d.
    b. Position entry criteria
    c. Capital allocation to each pair and cash management
    d. Target P/E ratio of the underlying positions

3. Given two strategies: Seasonality, with all in annual trading costs of 50 bps / year (including market impact) on constant booksize of US$100 million and Asset expansion, with all in annual trading costs of 40 bps / year (including market impact) on constant booksize of $100 million. Assume PNL correlation of both strategies are 0. What is the most likely annual total trading costs of a portfolio with equal weight in both strategies and constant booksize of US$200 million?
    a. < $900,000, due to internal trade crossing between both strategies
    b. > 2 × $900,000 due to convex market impact
    c. Exactly $900,000
    d. < $900,000^2, due to convex market impact

4. Neglecting trading costs, we back test "12 months – 1 month" industry neutral cross sectional momentum strategy on below trading universes. We keep strategy's code identical, and only vary trading universe. Which universe is *probably* going to result in highest back tested Sharpe ratio before trading costs are taken into account? Numbers below denote "number of unique stocks" in that universe.
    a. S&P 500
    b. Nikkei 225
    c. Stoxx Europe 600
    d. Russell 3000

5. What is a common objection to technical analysis?
    a. For visual pattern recognition, due to its subjectivity, it is difficult to form testable hypotheses to evaluate the strategy
    b. Short interest costs will be higher
    c. Generally results in a very high frequency trading strategy that requires expensive infrastructure to implement
    d. Extremely high alpha decay for such strategies

Section B: Short answer questions [answer any 2 of the below / the remaining questions provide a good flavour of questions on the final]

1. In a situation with backwardation, qualitatively describe a futures curve carry strategy, especially the source of PnL. A rough sketch of the forward curve may be useful [does not need to be to scale]: 5 points

2. Describe how a volatility carry strategy exploits the VIX gap. 5 points

3. Summarize **only one** of the following strategies, touching on (i) economic intuition and (ii) general process for implementing: (i) seasonality (ii) asset expansion spread (iii) analyst revisions momentum (iv) post earnings announcement drift [chose just one out of those four] 5 points

4. What is maximum drawdown of this strategy? Numbers in table give daily % PNL (5 points)

Day	% PNL for day
1	19.5%
2	1.0%
3	-0.6%
4	+0.1%
5	-6%
6	1%
7	-3%