Exam information	
Course code and title	FINM3407 Behavioural Finance
Semester	Semester 2, 2023
Exam type	Online, non-invigilated, end-of-semester examination
Exam technology	Blackboard Test
Exam date and time	Refer to your personal exam timetable for the scheduled date and time of this exam. Your examination will begin at the time specified in your personal examination timetable. If commence your examination after this time, the end for your examination does not change. For example, if your examination is schedule for 10am with an end time of 11:40am, even if you commence at 10:30am your end time is still 11:40am. The total time for your examination from the scheduled starting time will be: 2 hours 10 minutes including 10 minutes planning time. A 15-minute submission period is available for submitting your examination. If your examination is submitted after this period late penalties will be applied unless you can demonstrate that there were problems with the system and/or process that were beyond your control.
Exam window	You must commence your exam at the time listed in your personalised timetable. You have from the start date/time to the end date/time listed in which you must complete your exam.
Permitted materials	This is an open book exam – all course materials are permitted.
Recommended materials	Ensure the following materials are available during the exam: Calculator; bilingual dictionary; phone/camera/scanner
Instructions	You need to answer all of the questions in the Blackboard Test. You must do all your working in the Blackboard test If you believe there is missing or incorrect information impacting your ability to answer any particular question, please state this when answering that question. This assessment is divided into two sections and has a total of 40 marks. Part A: 10 Multiple-Choice Questions (20 marks, 2 marks per question.) Part B: 4 Essay or Problem-Solving Questions (20 marks, 5 marks per question.)
Who to contact	Given the nature of this examination, responding to student queries and/or relaying corrections to exam content during the exam may not be feasible. At the end of the exam there will be a free text box field. Please use this to specify any assumptions you have made in completing the exam and which questions those assumptions relate to. You may also include queries you may have made with respect to a particular question, should you have been able to 'raise your hand' in an examination room.

	If you experience any interruptions to your examination, please collect evidence of the interruption (e.g. photographs, screenshots or emails).
	If you experience any issues during the examination, contact the Library AskUs service for advice as soon as practicable:
	Chat: support.my.uq.edu.au/app/chat/chat_launch_lib
	Phone: +61 7 3335 7047
	Email: examsupport@library.uq.edu.au
	You should also ask for an email documenting the advice provided so you can provide this to the course coordinator immediately at: k.tan@uq.edu.au
Important exam condition information	You are responsible for managing your multi-factor authentication in this examination. Please check the guidance on How do I MFA before an online exam?
	Academic integrity is a core value of the UQ community and as such the highest standards of academic integrity apply to all examinations, whether undertaken in-person or online.
	This means:
	• You are permitted to refer only to the allowed resources for this exam, and you must not use any instances of work that has been submitted previously elsewhere.
	• You are not permitted to consult any other person – whether directly, online, or through any other means – about any aspect of this examination during the period that it is available.
	• If it is found that you have given or sought outside assistance with this examination, then that will be deemed to be cheating.
	If you submit your online exam after the end of your specified planning time, duration, and 15 minutes submission time, the following penalties will be applied to the total mark available for the assessment:
	• Less than 5 minutes – 5% penalty
	• From 5 minutes to less than 15 minutes – 20% penalty
	• More than 15 minutes – 100% penalty
	These penalties will be applied to all online exams unless there is sufficient evidence of problems with the system and/or process that were beyond your control.
	Undertaking this online exam deems your commitment to UQ's academic integrity pledge as summarised in the following declaration:
	"I certify that I have completed this examination in an honest, fair and trustworthy manner, that my submitted answers are entirely my own work, and that I have neither given nor received any unauthorised assistance on this examination".

Preview Test: FINM3407 End-of-semester 2, 2023 Examination - Questions Part A

Test Information

Description	Undertaking this online examination deems your commitment to UQ's academic integrity pledge as summarised in the following declaration: *"I certify that I have completed this examination in an honest, fair and trustworthy manner, that my submitted answers are entirely my own work, and that I have neither given nor received any unauthorised assistance on this examination".*
Instructions	You need to answer all of the questions in the Blackboard Test. You must do all your working in the Blackboard test
Multiple Attempts	Not allowed. This Test can only be taken once.
Force Completion	This Test can be saved and resumed later.
	Your answers are saved automatically.

QUESTION 1   **0 points**   Save Answer

<u>Optional: If you have supplementary file to include with your handwritten work, kindly upload it to the designated "FINM3407 End-of-semeter 2, 2023 - Submission Link - Part B"</u>
The following information is related to the next five multiple choice questions: Q2 -Q6 of your Examination.

Paul Miller, a Chartered Financial Analyst (CFA), is an investment consultant at Orion Advisors, an American asset management corporation. After earning his UQ Finance Degree a few years back, Miller now caters to three affluent clients. Every year, he reviews their investment strategies along with the responses to their newly filled-out risk appetite assessments. He notices distinct psychographic traits in each:

- **David Williams**: A prosperous 47-year-old hedge fund manager. Miller describes Williams as a cautious yet often self-overestimating investor with a moderate appetite for risk. Williams' psychological tendencies include regret avoidance, hindsight bias, and framing. In his annual review, he has expressed an interest in capital conservation but wants to heavily invest in shares from his own company.

- **Emily Clark**: A 44-year-old entrepreneur in the tech sector, who has been known to use considerable financial leverage. Before signing up with Orion, Clark managed her own concentrated equity portfolio. She exudes self-assuredness and is willing to take on high levels of risk. Her psychological blind spots are overconfidence and the illusion of control. Clark stated that she aims for capital growth and has a disinterest in stocks from outside the United States. She also mentioned that if multiple analysts from Orion recommended a particular stock, her willingness to invest would rise considerably.

- **Jack Anderson**: A 68-year-old tycoon who built his fortune in the healthcare sector. Miller finds Anderson to be conservative and future-focused. Concerned about asset safety, Anderson tends to seek counsel from those he views as more informed. His psychological tendencies include loss aversion, status quo bias, and the endowment effect. In his review, Anderson noted that he would be more comfortable investing if a unanimous decision was reached by Orion's Wealth Management Investment Committee.

Miller notes one commonality across the three clients: All would view a company with a solid growth trajectory and prior strong stock performance as a wise investment.

After each annual review, Miller updates the clients' investment strategies for their approval. Following this, he revisits their portfolios for any needed adjustments. Orion restricts the available investment options to those vetted by their analysts and sanctioned by their Wealth Management Investment Committee, which prides itself on its meticulous vetting process and Bayesian analytical methods.

Miller has an upcoming meeting with his boss to discuss the outcomes of these annual assessments and any recommended changes in portfolio allocation.

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QUESTION 2   **2 points**   Save Answer

Whose portfolio is least likely to stray from a mean-variance optimised portfolio?

○ A. Anderson
○ B. Williams
○ C. Clark
○ D. All are equally likely
○ E. Cannot be determined

QUESTION 3   **2 points**   Save Answer

Which psychological bias is most significant when constructing an investment portfolio for Clark?

○ A. Illusion of control
○ B. Overconfidence
○ C. Home bias
○ D. Hindsight bias
○ E. Anchoring bias

QUESTION 4   **2 points**   Save Answer

Which psychological bias is Anderson overlooking when he relies on the unanimous decisions of the Wealth Management Investment Committee?

○ A. Social proof
○ B. Confirmation bias
○ C. Gambler's fallacy
○ D. Anchoring bias
○ E. Optimism bias

QUESTION 5   **2 points**   Save Answer

Who would benefit the most from a conventional risk appetite questionnaire?

○ A. Anderson

○ B. Williams

○ C. Clark

○ D. All of them equally

○ E. None of them

QUESTION 6   **2 points**   Save Answer

What action is Miller least likely to take when offering financial advice to his clients?

○ A. Suggesting Williams diversify his asset holdings

○ B. Restraining Clark from actively participating in investment decisions

○ C. Discussing standard deviations and Sharpe ratios with Anderson

○ D. Recommending that Williams invest in fixed-income securities

○ E. Explaining Bayesian methods to Clark

QUESTION 7   **2 points**   Save Answer

During the COVID-19 pandemic, which behavioural factor could best explain the increased investment in technology stocks despite economic downturns?

○ A. Recency Bias

○ B. Confirmation Bias

○ C. Home Bias

○ D. Mental Accounting

○ E. Regret Aversion

QUESTION 8   **2 points**   Save Answer

A behavioural finance researcher is studying the effect of overconfidence on trading frequency. She believes that the probability of overconfidence affecting trading frequency is conditionally dependent on the investor's experience. Which of the following probabilities is she most likely interested in?

○ A. P(Overconfidence | High Frequency)

○ B. P(High Frequency | Overconfidence, Experience)

○ C. P(Experience | Overconfidence)

○ D. P(Overconfidence, Experience | High Frequency)

○ E. P(High Frequency, Experience | Overconfidence)

QUESTION 9

2 points   Save Answer

Which of the following statements best differentiates traditional finance from behavioural finance?

- ○ A. Traditional finance assumes that markets are always efficient, while behavioural finance does not.
- ○ B. Behavioural finance assumes that all investors are rational, while traditional finance does not.
- ○ C. Both traditional and behavioural finance agree that psychological biases have a significant impact on investment decisions.
- ○ D. Traditional finance focuses solely on macroeconomic factors, while behavioural finance focuses on microeconomic factors.
- ○ E. Both traditional and behavioural finance assume that markets are always inefficient.

QUESTION 10

2 points   Save Answer

Which behavioural factor is most likely to explain the "Momentum Effect," where assets that have performed well in the past continue to do well in the short-term future?

- ○ A. Recency Bias
- ○ B. Hindsight Bias
- ○ C. Overconfidence
- ○ D. Confirmation Bias
- ○ E. Regret Aversion

QUESTION 11

2 points   Save Answer

An investor initially buys a tech stock based on a hot tip from a friend. The stock performs well initially but then starts to decline. Despite the downturn and contrary evidence, the investor buys more shares, believing the stock will rebound. Which combination of behavioural biases is the investor most likely displaying?

- ○ A. Overconfidence and Hindsight Bias
- ○ B. Herding and Confirmation Bias
- ○ C. Anchoring and Regret Aversion
- ○ D. Loss Aversion and Self-Attribution
- ○ E. Overconfidence and Confirmation Bias

QUESTION 12

5 points   Save Answer

Please illustrate when the prospect theory resembles to expected utility theory based on the following formula:

Expected Utility Theory

$$E(U) = \sum_{i=1}^{N} P_i U(w_i)$$

Prospect Theory

$$E(v) = \sum_i \pi(pr_i) v(x_i - r)$$

$$\pi(pr) = pr^{\gamma} / [pr^{\gamma} + (1 - pr)^{\gamma}]^{(1/\gamma)}$$

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QUESTION 13   **5 points**   Save Answer

Prospect pair 1 -- choose between:

- **W: (0.2, $4000)**
- **X: (0.25, $3000)**

Prospect pair 2 -- choose between:

- **Y: (0.8, $4,000)**
- **Z: ($3000)**

Part (a): What is the expected utility for Prospect pair 1 (X)? (*Note: Please enter your answer rounded to the nearest whole dollar. For example, if your answer is $1,234.89, please input 1235 in your answer box.*) **(1 mark)**

Part (b): Based on the expected utility theory, which Options (W or X) would you choose for Prospect pair 1? (*Note: If your answer is Option W, you only need to input W in your answer box.*) **(1 mark)**

Part (c): Ignoring the expected utility theory, would most people choose Options Y or Z from Prospect pair 2? (*Note: You only need to input Y or Z in your answer box.*) **(1 mark)**

Part (d): Please explain your rationale for your answer in Part (c) in less than 50 words. **(2 marks)**

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QUESTION 14   **5 points**   Save Answer

Based on the following figure (Weighting function), please briefly explain in one or two sentences how each of the following three individuals will react to a prospect with different probabilities:
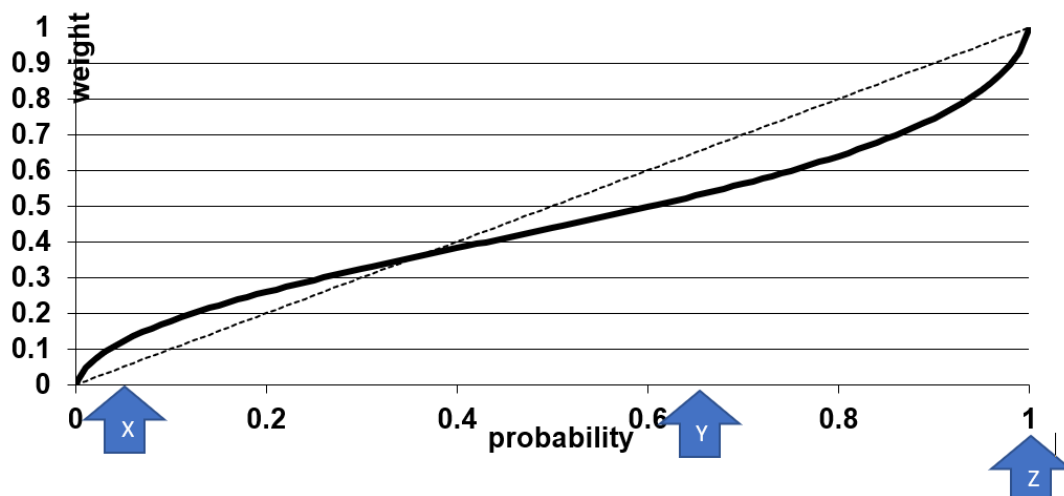
Part (a): Individual X **(1 mark)**
Part (b): Individual Y **(1 mark)**
Part (c): Individual Z **(1 mark)**
Part (d): Among the three individuals (X, Y, and Z), who is more likely to purchase insurance (i.e., home content insurance or building insurance)? You only need to input X, Y or Z in your answer box. **(1 mark)**
Part (e): Please briefly explain your answer to Part (d) in less than 25 words. **(1 mark)**

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QUESTION 15

5 points   Save Answer

Imagine if we are doing the following experiment, you will earn the following payoff depending on your subsequence/ranking (r) of entering an industry.

Profit=$50*[c+1-r)/(1+2+…+c)], where r = 1,2,3 … c
and c is the market capacity

However, if you are ranked after the market capacity (c), you will need to pay $10. In other words, your profit will be -$10.

Assuming that the market capacity is 4, and there are 12 players/entrants.

Part (a): What is the total industry profit or loss if there are 2 actual entrants? (Note: Please enter your answer rounded to the nearest whole dollar. *For instance, if your answer is $45.78, input 46 into your answer box.*) (2 marks)

Part (b): What is the total industry profit or loss if there are 5 actual entrants? (Note: Please enter your answer rounded to the nearest whole dollar. *For instance, if your answer is $45.18, input 45 into your answer box.*) (2 marks)

Part (c): At what rank will the total industry profit or loss be zero? (Note: *Please enter your answer as a whole number or integer. For example, if your answer is 9, input 9 into your answer box.*) (1 mark)

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QUESTION 16

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Please use this space if you believe there is missing or incorrect information that impacted your ability to answer any question. Please state which questions this is related to.

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