Score for this quiz: **18** out of 20
Submitted Oct 16 at 8:59pm
This attempt took 11,109 minutes.

Question 1

1 / 1 pts

False negative is a Type II error, i.e. you incorrectly retain a false null hypothesis

- (•) True
- ( ) False

Question 2

1 / 1 pts

Adding interaction terms:

- ( ) Decreases model complexity
- (•) Increases model complexity
- ( ) Always makes the independent variable insignificant
- ( ) Always increases the Goodness of Fit of the model

Incorrect

Question 3

0 / 1 pts

In a linear regression model, you add a categorical variable “City” which takes the values of 60 different cities. This leads to:
(i) Overfitting of your model
(ii) Underfitting of your model
(iii) Reduction in the degrees of freedom of your model

- ( ) (i) only
- ( ) (ii) only
- (•) (iii) only
- ( ) (i) and (ii)
- ( ) (i) and (iii)

Question 4

1 / 1 pts

In the model log(Y) = b0 + b1*log(X), the elasticity of Y is the percentage change in Y (the dependent variable), when X (the independent variable) increases by one unit.

- (•) False
- ( ) True

Question 5

1 / 1 pts

Odds for is the probability that the event will not happen divided by the probability that the event will happen.

- ( ) True
- (•) False

Question 6

1 / 1 pts

In the election of Whoville, a poll is conducted to see whether Alex or Bob will win. Accidentally, this poll is conducted in an area which has a vast majority of Bob's supporters. Based on the result, it looks like Bob is going to win the election. However, the poll's prediction was incorrect and Alex ends up winning the election. This is an instance of selection bias – true or false?

- (•) True
- ( ) False

Load dataset “Wages” (not “Wages1”) from Package “Ecdat” in R. Run the following linear regression model:

lwage = b0 + b1*ifsouth

where “ifsouth” is an indicator variable created from variable “south” and 1 indicates people who live in the south). More details on variable description can be found from CRAN **http://ftp.auckland.ac.nz/software/CRAN/doc/packages/Ecdat.pdf**

Question 7

1 / 1 pts

What is the average of “lwage” for an individual who resides in the south?

- 6.73
- 6.70
- 6.60
- 6.55

Question 8

1 / 1 pts

What is the value of difference estimator, b1, in the model?

- 0.01565
- 6.72959
- -0.18342
- 0.00835

Question 9

1 / 1 pts

Beta value of Company A = 0.5, Company B = 1 and Company C = 1.5. Which company is expected to move **exactly along** with the market?

- Company A
- Company B
- Company C
- Company A & Company C

Question 10

1 / 1 pts

Which of these asset classes has historically been the safest (least risky)?

- Small Cap Stocks
- Large Cap Stocks
- Corporate Bonds
- Treasury Bonds

Question 11

1 / 1 pts

Fill in the blanks.

On average, riskier investments have _____ average annual return & _____ standard deviation.

- Low, Low
- Low, High
- High, Low
- High High

Question 12

1 / 1 pts

Bob deposited $100 in the bank. After 3 years, the savings compounded to $115.76. What was the annual rate of interest offered by the bank?

- 3%

- 4%
- 5%
- 6%

Question 13

1 / 1 pts

A company of market value $10 billion has a stock split of 2 for 1. Each share is valued at $100 before the stock split. What is the value of each share after the stock split?

- $50
- $100
- $150
- $200

Question 14

1 / 1 pts

John notices DAB's stock has beaten the market in September for the past five years consecutively, so he decides to purchase the stock at the beginning at September and sell it in the end of the month. However, DAB's stock declined and had a lower return compared to the S&P 500. What is the minimum form of market efficiency that explains this situation?

- Weak form efficiency
- Semi-strong form efficiency
- Strong form efficiency
- Inefficiency

Question 15

1 / 1 pts

A technical trader places a lot of weight on newly formed candles, making him lose track of the long-term trends. What behavioural bias(es) does this trader exhibit?

- Overconfidence
- Loss aversion
- Recency effect
- Anchoring

Incorrect

Question 16

0 / 1 pts

Let's construct a CMV (Consonant Minus Vowel) factor by creating a factor-mimicking portfolio where we go long on stocks whose symbols begin with a consonant and short on stocks whose symbols begin with a vowel. Suppose it has provided an average annual premium of 3% from 1980 to 2018. Which of the following factor categories should this factor belong to?

- Macroeconomic Factors
- Statistical Factors
- Fundamental Factors
- None of the above

Suppose we run a factor regression for a stock fund to see which factors explain its return and get the following output:

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-0.003	0.004	-0.724	0.473
Mkt-RF	0.757	0.140	5.394	1.634E-06
SMB	-0.721	0.159	-4.543	3.238E-05
HML	-0.056	0.165	-0.338	0.736

Where Mkt-RF is the excess market return, SMB is the Size factor and HML is the Value factor.

Question 17

1 / 1 pts

This fund is most likely a:

- Growth Fund
- Large-Cap Fund
- Small-Cap Fund
- High Beta Fund

Question 18

1 / 1 pts

What is the most likely interpretation of the intercept term from the regression output?

- The fund manager generates a positive alpha which is statistically significant
- The fund manager's alpha is not statistically significant different from zero
- The fund manager generates a negative alpha which is statistically significant
- None of the above

Question 19

1 / 1 pts

Historically, the value premium has been positive but between 2009 and 2018, the average annual premium on value stocks was -2.33%. Which trait of the value factor is most likely represented by this underperformance?

- Cyclicality of the value factor over certain time horizons
- Value factor is negatively correlated to the market factor
- Value factor does not exist any more
- Negative correlation of the value factor with size factor

Question 20

1 / 1 pts

Which of the following is most likely to happen in the long-term if **excessive** investments are made into systematic factor funds?

- The average annual return premiums of the factors will go down
- The average annual return premium of the factors will go up
- The average annual return premiums of the factors will not change
- None of the above

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