Research Methodology (QF)
Final Exam

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Instruction: If two (or more) choices (e.g., A and B) are given, select preferred usage. If one sentence is given, give **Good** or **Bad**. Assume the sentences are the parts of your thesis. You may find the references in the end.

1. The pricing model was analyzed by (Kou et al., 2018).

   1. _____ **Bad. by Kou et al. (2018)** _____

2. Alexander et al. (2020) investigates several Bitcoin futures exchanges.

   2. _____ **Bad. investigate** _____

3.   A. Confirmation of these reports cannot be obtained.

           B. These reports cannot be confirmed.

   3. _____ **B. See III. 11.** _____

4.   A. This region was surveyed in 1900.

           B. A survey of this region was made in 1900.

   4. _____ **A. See III. 11.** _____

5.   A. He thought the study of finance useless.

           B. He did not think that studying finance was much use.

   5. _____ **A. See III. 12.** _____

6.   A. She did not have much confidence in the previous study.

           B. She distrusted the previous study

   6. _____ **B. See III. 12.** _____

7. <u>In spite of the fact that</u> the model is simple, it captures several insights.

   7. **Bad. See III. 13. 'Although' is better.**

8. The question as to whether stock return follows normal distribution is an research topic.

        8. **Bad. See III. 13. 'Whether' is enough.**

9.   A. Mr. B. also spoke, to the same effect.

      B. Mr. B. also spoke along the same lines.

        9.   **A. See V. Line.**

10.   A. The intrinsic value of a given security depends on the earnings prospects of the company. We stress, however, that actual market prices need not correspond to intrinsic values.

      B. The intrinsic value of a given security depends on the earnings prospects of the company. However, we stress that actual market prices need not correspond to intrinsic values.

        10.   **A. See V. However.**

11. This study investigates the stochastic-alpha-beta-rho (SABR) model. We derive a new equivalent volatility for the SABR model.

        11. **Good. SABR is defined first.**

12. The Fama–French three factor model is quite important in the asset pricing theory.

        12.   **Bad. 'Quite' is informal.**

13.   A. While the temperature reaches 90 or 95 degrees in the daytime, the nights are often chilly.

      B. Although the temperature reaches 90 or 95 degrees in the daytime, the nights are often chilly.

        13.   **B. See V. While.**

14.   A. Humanity, since that time, has advanced in many other ways, but it has hardly advanced in fortitude.

      B. Humanity has hardly advanced in fortitude since that time, though it has advanced in many other ways.

        14.   **A. See III. 18.**

15.   A. The conclusion of this paper is not worthwhile noting.

      B. The conclusion of this paper is not worth noting.

        15.   **B. See V. Worthwhile.**

16. The importance of game theory can't be ignored.

16. <u>**Bad. Do not use '**</u>

17.   A. Wordsworth, in the fifth book of *The Excursion*, gives a minute description of this church.

    B. In the fifth book of *The Excursion*, Wordsworth gives a minute description of this church.

17. <u>**A. See III. 16.**</u>

18.   A. It was both a long ceremony and very tedious.

    B. The ceremony was both long and tedious.

18. <u>**B. See III. 15.**</u>

19.   A. My objections are, first, <u>that</u> the measure is unjust; second, <u>that</u> it is unconstitutional.

    B. My objections are, first, the injustice of the measure; second, <u>that</u> it is unconstitutional.

19. <u>**A. See III. 15.**</u>

20.   A. Young and inexperienced, the task seemed easy to me.

    B. Young and inexperienced, I thought the task easy.

20. <u>**B. See II. 7.**</u>

21. Our result is <u>compared to</u> that of Kou et al. (2018) because the numerical results for extreme cases show significance difference.

21. <u>**Bad. See V. Compared (with).**</u>

22. When applied under proper conditions, one can use logistic regression as a powerful analysis tool.

22. <u>**Bad. See II. 7.**</u>

23. The last table is presented for robustness check purposes.

23. <u>**Bad. See III. 13.**</u>

24.   A. His brother, <u>whom</u> he said would send him the money, ⋯

    B. His brother, <u>who</u> he said would send him the money, ⋯

24. <u>**B. See V. Whom**</u>

25.   A. The data <u>was</u> obtained from Bloomberg terminal.

            B. The data <u>were</u> obtained from Bloomberg terminal.

25.   **B. Data is plural.**

26. This regression uses <u>less</u> variables than the previous one.

26.   **Bad. See V. Less vs Fewer.**

27.   A. To <u>better</u> understand this risk factor , $\cdots$

            B. To understand this risk factor <u>better</u>, $\cdots$

27.   **B. To + verb.**

28.   A. It is nearly four past five<u>,</u> we cannot finish the exam.

            B. It is nearly four past five<u>;</u> we cannot finish the exam.

28.   **B. See II. 4.**

29. Every input variable <u>is</u> standardized to have one standard deviation.

29.   **Good. See V. They**

30.   A. Our method is closer to support vector machine than <u>to</u> random forest.

            B. Our method is closer to support vector machine than random forest.

30.   **A. Clear meaning.**

References

Alexander, C., Choi, J., Park, H., and Sohn, S. (2020). BitMEX Bitcoin Derivatives: Price Discovery, Informational Efficiency and Hedging Effectiveness. *Journal of Futures Markets*, 40(1):23–43. https://onlinelibrary.wiley.com/doi/abs/10.1002/fut.22050.

Kou, S., Peng, X., and Zhong, H. (2018). Asset Pricing with Spatial Interaction. *Management Science*, 64(5):2083–2101. https://pubsonline.informs.org/doi/10.1287/mnsc.2016.2627.