Name and Surname*:* _____

The test consists of 16 questions, each with four possible answers… but only one is correct! You have 60 minutes to complete the test. A minimum of 10 correct answers is required to pass. Good luck ☺

***1.** What is the main purpose of preregistering a study?*

a. To provide a complete literature review before data collection
b. To distinguish between planned confirmatory analyses and unplanned exploratory analyses
c. To ensure that all hypotheses are confirmed
d. To preselect participants based on demographic criteria

***2.** Which of the following must a proper preregistration include?*

a. A long description of the theoretical background
b. An exact description of how the key confirmatory analyses will be conducted
c. A flexible analysis plan that can be changed after data collection
d. Information about the authors' personal beliefs

***3.** Which item below should <u>NOT</u> be included in a preregistration because it does not affect p-hacking concerns?*

a. A precise rule for excluding participants
b. A detailed description of how the dependent variable will be measured
c. The full literature review and theoretical background
d. The planned sample size

***4.** The EU guidelines state that researchers who use generative AI tools should:*

a. Name AI systems as co-authors on papers
b. Delegate accountability for any errors to the AI developers
c. Remain ultimately responsible for the integrity of the content
d. Rely on AI outputs without evaluation because they are unbiased

5. *According to the AI guidelines, transparency requires researchers to:*

a. Hide the use of AI tools to avoid stigma
b. Use only open-source AI models
c. Publish AI prompts and outputs only after peer review is complete
d. Note in the methods which generative AI tools were used

6. *The guidelines for research organisations advise them to:*

a. Discourage researchers from disclosing AI use in order to avoid poor quality assessments
b. Provide training, guidance and support so researchers can use generative AI responsibly
c. Require all peer reviews to be conducted by AI tools
d. Keep policies on AI use confidential to protect intellectual property

7. *The ALLEA Code lists four core principles. Which set below correctly identifies them?*

a. Reliability, Efficiency, Subjectivity, Autonomy
b. Honesty, Respect, Innovation, Neutrality
c. Reliability, Honesty, Respect, Accountability
d. Creativity, Honesty, Accountability, Profitability

8. *Within the ALLEA Code, which option correctly defines fabrication?*

a. Manipulating statistical procedures to inflate significance
b. Making up data or results and recording them as if they were real
c. Using someone else's ideas without crediting them
d. Re-publishing one's own work with proper citation

9. *Which of the following practices is identified by ALLEA as an unacceptable distortion of the research record?*

a. Sharing datasets openly to facilitate replication
b. Publishing results in open-access journals
c. Splitting research results into several papers solely to inflate publication counts
d. Registering clinical trials in recognised registries

10. *The EU guidelines recommend that researchers refrain from using generative AI substantially in sensitive activities (e.g., peer review) because:*

a. AI tools invariably produce biased results and should be banned from research

b. Avoiding AI in these contexts reduces risks such as hallucinations and unfair assessments and protects unpublished work

c. Using AI in peer review saves time and resources, so restrictions are unnecessary

d. Generative AI tools have no limitations in sensitive tasks

11. *In the context of questionable research practices, p-hacking refers to:*

a. Running multiple analyses or manipulating data until a statistically significant result is found

b. Deliberately fabricating data to achieve a significant result

c. Pre-registering all planned analyses prior to data collection

d. Collecting insufficient data due to resource constraints

12. *Which scenario illustrates HARKing?*

a. Formulating hypotheses after data analysis and presenting them as pre-specified hypotheses

b. Conducting analyses exactly as described in the preregistration plan

c. Reporting non-significant results transparently

d. Using simulation studies to plan sample size before data collection

13. *Which of the following scenarios is best classified as research misconduct, rather than a questionable research practice?*

a. A researcher tries several statistical models and reports only the one that yields a significant result without documenting the others

b. A researcher removes outliers post hoc because they weaken the hypothesis and does not report the exclusion

c. A researcher invents several participant responses to reach the planned sample size

d. A researcher presents exploratory findings as if they were confirmatory

14. *You have submitted your manuscript to the* Journal of Topolino *and a few days later you get a LinkedIn message from someone claiming to be an anonymous reviewer of your paper. They identify themselves and suggest you cite some of their articles. What should you do?*

a. Politely decline and inform the journal editor of the reviewer's request
b. Accept the request and add the citation to ensure your paper's acceptance
c. Ignore the message completely and do nothing
d. Send a meme back and ask if the reviewer wants a co-author credit

15. *You are asked to review a paper that heavily cites your own work. The citations are broadly relevant, though a few could arguably be replaced by others. You feel positively disposed toward the paper. What is the best response?*

a. Proceed with the review without comment; relevant citations are not a conflict
b. Declare a potential conflict of interest and let the editor decide
c. Suggest adding even more of your work to strengthen the theoretical framing
d. Give the paper a very positive review to reward good scholarship

16. *Your department evaluates productivity heavily by publication count. A dataset could reasonably support two moderate papers or one stronger integrated paper. Splitting increases your CV line count. What is the best response?*

a. Split into multiple papers to meet evaluation incentives
b. Choose the structure that best serves scientific clarity
c. Write the same paper twice with different titles
d. Publish one and keep the rest as emergency career reserves

Bonus: ***If you answer this question correctly, you will automatically pass.*** *Many questionable research practices arise from misunderstandings about probability, particularly how easily "significant" results can sometimes occur by chance or by flexibly changing decision rules in the process. What is the probability of passing this exam purely by random guessing?*

a. 25.12%
b. 0.164%
c. 25.00%
d. 0.123%