Rigor And Reproducibility Final

Please fill out all answers for the final exam for Rigor and Reproducbility. This exam is pass/fail and a grade of 80% or higher is required to pass.

Name

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KID/NetID

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1) Compare and contrast computational reproducibility and experimental replicability.

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2) Choose one issue related to experimental replicability, explain what it is, and how it impacts replicability.

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3) Describe one aspect of research data management and how it is important for reproducibility/replicability?

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4) Perform a comprehensive literature search in PubMed that combines synonyms (e.g. (term1 OR term2 OR term3) AND (otherTerm1 OR ...)...) on the following topic: What is the impact of smoking on the oral microbiome with regards to cancer?

4a) Enter the exact search you put into the system:

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4b) Enter the number of results (hint: if you get very few hits (e.g. under 5) or very many hits (e.g. over 1000) there is probably an error.

_____

5) Smokeless tobacco impacts oral microbiota in a Syrian Golden hamster cheek pouch carcinogenesis model https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6109425/

Identify one strength and one weakness related to the reproducibility or replicability of the research, and explain why they impact reproducibility/replicability.

5a) What is a strength of the article and how does it impact reproducibility/replicability.

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5b) What is a weakness of the article and how does it impact reproducibility/replicability.

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6) Describe one best practice of computational
reproducibility and how R and R Studio could be used
to achieve it.

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