BioAMS Training Test

1. What does the AMS technique actually measure?

2. Name at least three sources for potential contamination when performing an experiment using AMS.

3. You spend the morning preparing dosing solution in the hot lab. When should you enter the low level lab?

4. For work on a bench top, it is suggested that 2 layers of bench paper be used. Why?

5. How often is it recommended that bench paper be replaced?

Primary:

Secondary:

6. Another lab is getting rid of some equipment and there is something you would like to take for use in your AMS experiment. What should you do?

7. You are planning a new experiment resulting in 50 samples for analysis by AMS. What is the maximum amount of activity (in curies per gram of carbon) you should plan to have in any one of those samples?

8. Express the amount from the previous question in Fraction Modern

9. The experiment is done. What should be done prior to submitting your samples to ensure they do not have too much ^{14}C?

10. All experiments should include negative or blank experimental control samples. Why?

11. What is the best way to store AMS samples?

12. Your results may have 4 measurements of tributyrin appended to the experimental results. Why?

13. The final physical forms of ^{14}C-labeled samples for AMS analysis can be either _____or_____

14. 1 Modern = _____ dpm/g Carbon

15. 100ug Rat DNA = _____ ug Carbon

16. You have a compound with a specific activity of 50mCi/mmol, what percent of the carbons are labeled on that compound?