This exam covers chapter 7 & 5 of the Cosby book and chapters 4, 5, & 10 from Schacht & Aspelmeier.

Be sure you are familiar with the following:

1. Survey/Self Report Methods and how they related to Internal Validity and the different types of External Validity (Generalizability, Mundane realism, Ecologica/Functional Realism, and Experimental Realism).
2. What are the strengths of Self Report measures?
3. What are the weaknesses of self-report measures?
5. Measurement Reliability - Test Retest, Internal Consistency, Cronbach’s Alpha.
7. Measures of Central Tendency Mean, Median, Mode - and how they are calculated.
8. Skewness and its relationship to central tendency
9. Measures of Variability - Range, Variance, & Standard Deviation for pops and samples and how they are calculated.
10. Pearson’s $r$
11. $r^2$ and 1- $r^2$ ; Coefficient of Determination
12. Covariance and Total Variance and their relationship to $r$.
13. Positive correlations and Negative correlations.
14. The null hypothesis and research hypothesis for $r$.
15. Table of critical values for $r$. The relationship between $r$, sample size ($df$), and $p$.
16. Evaluate Effects Sizes for Pearson’s $r$.
17. Sample size required for a given value of $r$ to be found significant.
18. Estimate correlations from scatterplots.
19. Reach SPSS output for Pearson’s $r$
20. Calculate Mean, Median, & Mode by hand
21. Calculate variance and standard deviations by hand for samples and populations.
22. Compare a set of means and standard deviations for a two samples.
23. Compute $r$, test for significance, find the % variance accounted, interpret the effect size, and interpret the results.