1. In panel models, the focus is on the _____ differences, whereas, in growth-curve models, the focus is on _____ change.
    A. Intraindividual (within-person); Individual (between-person)
    B. Group; Interpersonal
    C. Individual (between-person); Intraindividual (within-person)
    D. Latent construct; Time predictive

2. Growth curve models address questions about the _____ of change and the _____ of change that characterizes a sample of persons and the individual differences in these within-person parameters.
    A. Type; Extremity
    B. Mode; Time
    C. Something; Something
    D. Rate; Shape

3. In a growth curve model, the growth trend over the course of the study is characterized by?
    A. An intercept and slope parameter
    B. Manifest variables and indicators
    C. An autoregressive path
    D. A cross-lagged path

4. What is **NOT** a key difference between a random co-efficient model and manifest-variable growth curve model?
    A. One is fit with SEM framework and the other is fit with the multi-level regression framework.
    B. The manifest-variable growth curve model has more flexibility to have complexity added to the overall model once the data is fit.
    C. The multi-level growth curve model uses "tall" format for organizing data and the random co-efficient model uses "wide" format.
    D. Both models account for individual differences in growth trajectories overtime.

5.   The latent growth curve model is sometimes called
    A. Curve-of-boxes model
    B. Hierarchical linear models
    C. Random co-efficient model
    D. Curve-of-factors model

6. The loadings in a growth curve model are typically fixed at specific values so the factors can be interpreted as an _____
    A. Indicator
    B. Intercept and slope
    C. Indirect effect

D. Orthogonal construct

7. Fundamentally, growth curve models are best suited to represent what kind of structures?
   A. Covariance structures
   B. Mean structures
   C. Residual structures
   D. Error structures

8. What commonly happens to the correlation between the intercept and slope when the scale of measurement is a closed-ended Likert-type scale and the items are worded in terms of characteristics, attitudes, and behaviors?
   A. The correlations are negative.
   B. The correlations are non-significant.
   C. The model will have difficulty converging.
   D. The correlations are inflated.

9. What is the only form of identification that keeps the integrity of the scale of the mean-level information intact?
   A. Marker variable method
   B. Fixed factor method
   C. Effects-coded method
   D. Orthogonalization method

10. Most multi-level SEM programs are limited to the number of levels that can be represented. With longitudinal multilevel SEM, because time is nested within the individual and is explicitly modeled, how many levels can be represented?
    A. Three
    B. Only one
    C. An infinite number
    D. Up to 8