Your name:_____

Quiz no. 3 – data preprocessing and GLM

1) Briefly state *why* each of the following fMRI data preprocessing steps is done [*3 pts. each*]

a) Motion correction

b) Slice-time correction

c) Spatial normalization

d) Smoothing

2) For (a) and (b) each, first state a preprocessing step that can potentially negatively affect the data, and then describe how [*3 pts. each*]

a) Preprocessing step: _____

Disadvantage:

b) Preprocessing step: _____

Disadvantage:

Turn to other side

Your name:_____

Quiz no. 3 – data preprocessing and GLM

3a) *Circle* <u>True</u>   or   <u>False</u>: The *same* hemodynamic response function (HRF) shape is assumed for every brain region and subject when setting up a general linear model (GLM) [*1 pt.*]

b) Briefly state how brain activation in a GLM analysis is quantified for a particular condition—in other words, how is the actual MRI signal data evaluated against the standard HRF? [*3 pts.*]