If you run UG ex 9.20 modified to USEVARIABLES = y; and TYPE=THREELEVEL BASIC with no MODEL command you find the y variances on the three levels Within, Between-2, and Between-3 as:

W = 2.645

B2 = 0.734

B3 = 0.802

for a Total = 4.181.

The level-2 ICC is computed as B2/Total = 0.176 (or 0.175 with difference due to rounding).

The level-3 ICC is computed as B3/Total = 0.192.

Note: Adding SAMPSTAT to the original ex 9.20 makes the ICCs be computed in a multivariate fashion and the ICCs will be different. This is explained in the FAQ "Icc changes from one model to another".