Questions for HEC-RAS Lunch and Learn

Take a few minutes to answer the below questions to the best of your knowledge. After the course, return to this questioner and see if you have gained any knowledge.

What method does HEC-RAS use to compute flow depth?

a) St. Venant Equations
b) Manning's Equation
c) Energy Equation
d) Navier Stokes Equations

HEC-RAS only computes Uniform Flow (normal depth) water surface profiles when Steady Flow Regimes are used:

a) True
b) False

Critical depth occurs when,

a) Specific Energy is at a minimum
b) When there is only one depth value for any energy value
c) When Specific Energy is at a Maximum
d) Both a.) and b.)
e) None of the above

HEC-RAS does not compute rapidly varied flow conditions:

a) True
b) False

When modeling a bridge, the momentum equation should be used when:

a) There are piers or obstructions in the flow path
b) When the bridge is highly submerged
c) Low flow Classes B and C
d) Weir flow occurs over the deck
e) a), b), and c)
f) Both a) and c)
g) You should always use the momentum equation when modeling a bridge

By balancing the complete energy equation around structures, HEC-RAS fully handles weir, pressure, and flow obstructions correctly:

a) True
b) False