✅ Answer Key – Identify the Independent and Dependent Variables

I**f a plant receives more water, then it will grow taller.**
IV: Amount of water
DV: Plant height

I**f students sleep at least 8 hours the night before a test, then their test scores will improve.**
IV: Hours of sleep
DV: Test scores

If metal is heated, then it will expand in size.
IV: Temperature (heating)
DV: Size/expansion of metal

I**f salt is added to water, then the boiling point of the water will increase.**
IV: Amount of salt added
DV: Boiling point of water

If athletes drink a sports drink instead of water, then their performance will improve during exercise.
IV: Type of drink (sports drink vs. water)
DV: Athletic performance

I**f the temperature increases, then ice will melt faster.**
IV: Temperature
DV: Melting rate of ice

If music is played while studying, then memory recall scores will be higher.
IV: Presence/type of music during studying
DV: Memory recall scores

If light intensity is increased, then photosynthesis will occur more rapidly.
IV: Light intensity
DV: Rate of photosynthesis

If caffeine is consumed, then reaction time will decrease.
IV: Caffeine consumption
DV: Reaction time

If soil pH is lowered, then the number of flowers a plant produces will decrease.
IV: Soil pH
DV: Number of flowers produced