Econometrics

Lecture 8: Extension of Simple Regression: Functional Forms II
Quiz

1. Which of the following is an exponential function?
   a. $f(x) = 2^x$ b. $f(x) = X^2$ c. $(x) = 1/x$ d. $(x) = -2^x$

2. Logarithmic functions are the inverses of exponential functions. True / False

3. Which one of the below is not the example of an exponential function?

a) Growth of bacteria b)Income and expenditure relationship
c) Compound Interest rate d)Population growth

4. We call the function $\boldsymbol{Y = 2^x}$ **as** exponential function because
a) Base is fixed and the exponent is a variable.
b) Base is variable and exponent is a fixed
c) Base is coefficient and exponents is variable
d) Exponents is coefficient and base is variable

5. An exponential function is a function with the general form $y = ab^x$, where a is restricted to which of the following?
a) $a = 0$ b) $a > 0$ c) $a < 0$ d)$a \neq 0$
6. Using the same equation $= ab^x$, which one of the following restrictions defines an exponential function?
a) $b = 1,$ b) $b \neq 1$ c) $b \leq 1$ d) $b < 1$

7. What do you mean by relative or proportional change?

   Relative or Proportional change = (Xt − Xt−1)/Xt−1 = (Xt/Xt−1 − 1)

8. Which one of the following models measure growth rate?
   a. Linear equation b) log-linear equation
   b. Linear log regression d) Reciprocal Model

9. Regression coefficients in a log-linear model represent the slope. True/False