M.A. Entrance Sample Questions

1. Although microcredit is often targeted at the poor, the rate of interest charged in such loans is usually much higher than that charged by commercial banks. This is primarily because
   (a) the microcredit business is more profit-oriented than the commercial banks.
   (b) the transaction cost per unit of loan is higher for microcredit loans.
   (c) in the absence of collateral, microcredit loans are more risky than bank loans.
   (d) both (b) and (c).

2. Since 1970s, the tax-GDP ratio has undergone a major change across different countries in the world. Over this time, this ratio
   (a) fell substantially for rich countries as well as poor countries.
   (b) rose for rich countries but fell for poor countries.
   (c) fell for rich countries but rose for poor countries.
   (d) does not show any systemic trend for the rich or the poor countries.

3. If the value of excess demand in any three out of four markets is each equal to zero, in the remaining fourth market, it must be
   (a) greater than unity.
   (b) equal to zero.
   (c) a negative quantity.
   (d) none of the above.

4. A risk-averse individual is offered a choice between a direct cash payment of $2000 or accepting a lottery that pays $10,000 with probability 25 per cent and $500 with probability 75 percent. Then, the following is true:
   (a) Individual might accept the lottery depending upon the degree of risk aversion.
   (b) Individual will accept the direct cash payment.
   (c) Individual will be indifferent between the lottery and the direct cash payment.
   (d) None of the above.

5. The inverse relationship between interest rates and bond prices is due to which one of the following facts?
   (a) Market makers require a bid-ask spread to offer their services at all.
   (b) Maturity premiums increase with the term of a bond.
   (c) A bond price represents the present discounted value of payments agreed upon at the time when the bond was issued.

(d) Capital markets are not efficient for long-maturity loans.

6. Phillips curve, representing an inverse relationship between unemployment and inflation, could be seen in several studies for a period of about hundred years. However, this simple relationship broke down once the policymakers started systematically using this relationship to address unemployment, because

   (a) policymakers lacked information about the exact nature of the relationship between unemployment and inflation.

   (b) forward-looking agents started pre-empting the actions of policymaker and incorporating them in their decision-making.

   (c) the rate of interests were too low, leading to reduction in savings.

   (d) there was lack of demand in the economy.

7. Suppose that the random variable X has mean μ and variance σ^2, and that $Y = aX + b$, the values of a and b for which $E(Y) = 0$ and $var(Y) = 1$ are

   (a) $-\dfrac{1}{\sigma^2}$ and $-\alpha\mu$

   (b) $\dfrac{1}{\sigma^2}$ and $-\alpha\mu$

   (c) Both (a) and (b)

   (d) $\dfrac{1}{\sigma^2}$ and $\alpha\mu$

8. Which one of the following can cause the usual OLS t-statistics to be invalid (that is, not to have t distributions under H_0)?

   (a) Heteroskedasticity.

   (b) A sample correlation coefficient of 0.95 between two independent variables that are in the model.

   (c) Omitting an important explanatory variable.

   (d) All of the above.

9. If the differential of a function $f(x)$ at $x = a$ is given by $f'(a)$, then the linear approximation of $f(x)$ about a is

   (a) $f(x) \approx f(a) + f'(a)(x + a)$

   (b) $f(x) \approx f(a) - f'(a)(x + a)$

   (c) $f(x) \approx f(a) + f'(a)(x - a)$

   (d) $f(x) \approx f(a) - f'(a)(x - a)$

10. The minimum and maximum values of $f(x) = \dfrac{1}{9}x^3 - \dfrac{1}{6}x^2 - \dfrac{2}{3}x + 1$ for $x \in [-3, 3]$ are respectively

   (a) 2 and -1

   (b) -3 and 3

   (c) 2 and 3

   (d) -3 and -1