Answer THREE questions

University approved calculators may be used

A foreign language translation dictionary is permitted provided it contains no notes, additions or annotations. Electronic dictionaries are not permitted.
1. Discuss the principles of the construction of price indices, and illustrate your discussion with reference to a country of your choice. In this context, would you expect the use of geometric rather than arithmetic means to influence the measurement of prices or inflation?

2. Discuss the principles of the seasonal adjustment of macroeconomic data, and illustrate your discussion with reference to a country of your choice. When examining year-on-year changes, for example $y_t - y_{t-4}$ when looking at quarterly data, does using seasonally adjusted data necessarily make a difference?

3. How does one measure the inequality of income distribution? Do you consider the Gini coefficient an adequate measure of inequality? What is the Kuznets hypothesis and to what extent can the hypothesis be supported?

4. EITHER Distinguish period life expectancy and cohort life expectancy. Compare the life expectancies for two countries of your choice. What relation would you expect between the median lifetime and the expected lifetime for individuals of age 25. Would the same be true for an individual aged 67?

OR Explain what you understand by the "Central Limit Theorem", using the Binomial distribution as an illustration. How would you construct a confidence interval for the Binomial probability and how would you interpret the result? Would any approximation you have used be of practical importance if your sample size were 1,000, or of size 10?

5. In the multiple regression model, explain how the estimate of the coefficient of a dummy variable is to be interpreted. Describe some situations where you might use dummy variables. How would you test the hypothesis that one of the slope coefficients is equal to 0? Explain the concept of a probability value and how it would be used to report the outcome of such a test.
6. Discuss the use of regression for investigating empirical regularities about economic growth.

7. How, and why, does one measure economic growth? Discuss in relation to the interpretation and usefulness of the World Development index?

8. What status would you give to macroeconomic relationships such as those explained by the IS-LM diagrams? Has econometrics "failed" to measure such relationships, or is the "failure" in macroeconomics?