



UNIVERSITY OF RUHUNA
FACULTY OF AGRICULTURE

First Examination in BSc Agribusiness Management (Part I)

June 2022

EC 1102 Economic Statistics (Compulsory)

Theory

INSTRUCTIONS

Answer **ALL** questions in PART I (MCQ) and ONLY FIVE (05) questions in PART II

Only non-programmable calculators are permitted.

Mobile phones are NOT permitted.

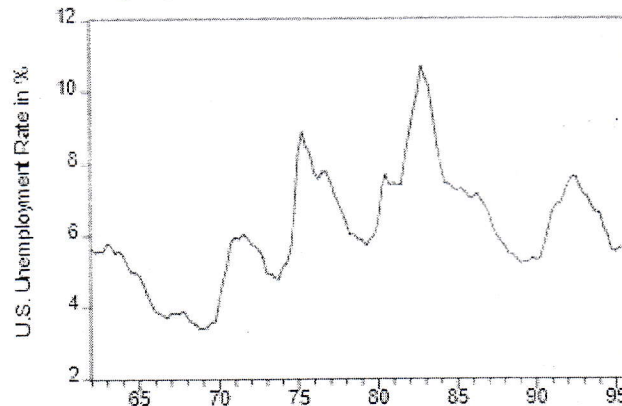
TIME: 3 (three) Hours

INDEX NUMBER

PART I MCQ: Please underline the most appropriate answer

1. Most economic data are obtained
 - a. through randomized controlled experiments.
 - b. by calibration methods.
 - c. through textbook examples typically involving ten observation points.
 - d. by observing real-world behavior.

2. The accompanying graph



is an example of

- a. experimental data.
 - b. cross-sectional data.
 - c. a time series.
 - d. longitudinal data.
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3. What is **incorrect** about cross sectional data?
 - a. A cross-sectional data set consists of a sample of a variety of other units, taken at a given point in time
 - b. It concerns minor timing differences in collecting the data
 - c. Cross-sectional study is a research tool used to capture information based on data gathered for a specific point in time
 - d. Age, gender, income, education, geographical locations, and ethnicity are examples for cross sectional data variables

4. Panel data
- is also called longitudinal data
 - is the same as time series data
 - studies a group of people at a point in time
 - typically uses control and treatment groups
5. Analyzing the behavior of unemployment rates across Sri Lanka in March 2020 is an example of using
- time series data
 - panel data
 - cross-sectional data.
 - experimental data
6. What are the 4 main types of time series data patterns?
- Seasonal, Linear, Cyclic, Random
 - Random, Seasonal, Cyclic, Trend
 - Cyclic, Seasonal, Straight, Trend
 - Trend, Circular, Seasonal, Random
7. In regression analysis, the variable that is used to explain the change in the outcome of an experiment, or some natural process, is called
- the x-variable
 - the independent variable
 - the explanatory variable
 - all of the above are correct
8. A regression analysis between sales (in Rs.1000) and price (in Rupees) resulted in the following equation:
- $$y = 50,000 - 8X$$
- The above equation implies that an
- increase of Rs.1 in price is associated with a decrease of Rs.8 in sales
 - increase of Rs. 8 in price is associated with an increase of Rs. 8,000 in sales
 - increase of Rs.1 in price is associated with a decrease of Rs. 42,000 in sales
 - increase of Rs. 1 in price is associated with a decrease of Rs. 8000 in sale
9. The process of constructing a mathematical model or function that can be used to predict or determine one variable by another variable is called,
- Regression
 - Correlation
 - Residual
 - Outlier plot

10. In the regression equation $Y=21-3X$, the slope is,
- 21
 - 21
 - 3
 - 3
11. In the regression equation $Y=75.65+0.50X$, the intercept is,
- 0.50
 - 75.65
 - 1.00
 - Indeterminable
12. The difference between the actual Y value and the predicted Y value using a regression equation is called the,
- Slope
 - Residual
 - Outlier
 - Scatter plot
13. The main purpose of performing regression analysis is to find
- Seasonal variation
 - Trend
 - Randomness
 - Non of the above
14. What belongs to forecasting error?
- Mean Absolute Percent Error (MAPE)
 - Mean Absolute Deviation (MAD)
 - Only Mean Absolute Percent Error (MAPE)
 - Both Mean Absolute Percent Error (MAPE) and Mean Absolute Deviation (MAD)
15. Elasticity is the measure of ____
- responsiveness\
 - change
 - price
 - need

16. All such demand curves where quantity demanded is totally unresponsive to changes in price are called

- a. perfectly elastic demand curve
- b. perfectly inelastic demand curve
- c. unitary elastic demand curve
- d. none of the above

17. The elasticity coefficient for perfectly elastic demand curve is

- a. zero
- b. one
- c. infinity
- d. none of the above

18- The cross elasticity of demand is a numerical measure of the degree to which quantity demanded of a good responds to changes in the ____, the other determinants of demand being kept constant.

- a. prices of other commodities
- b. income
- c. price
- d. none of the above

19. Suppose that a 2% increase in price results in a 6% decrease in quantity demanded. Own-price elasticity of demand is equal to:

- a) 1/3.
- b) 6.
- c) 2
- d) 3

20. If own-price elasticity of demand equals 0.3 in absolute value, then what percentage change in price will result in a 6% decrease in quantity demanded?

- a) 3%
- b) 6%
- c) 20%.
- d) 50%.