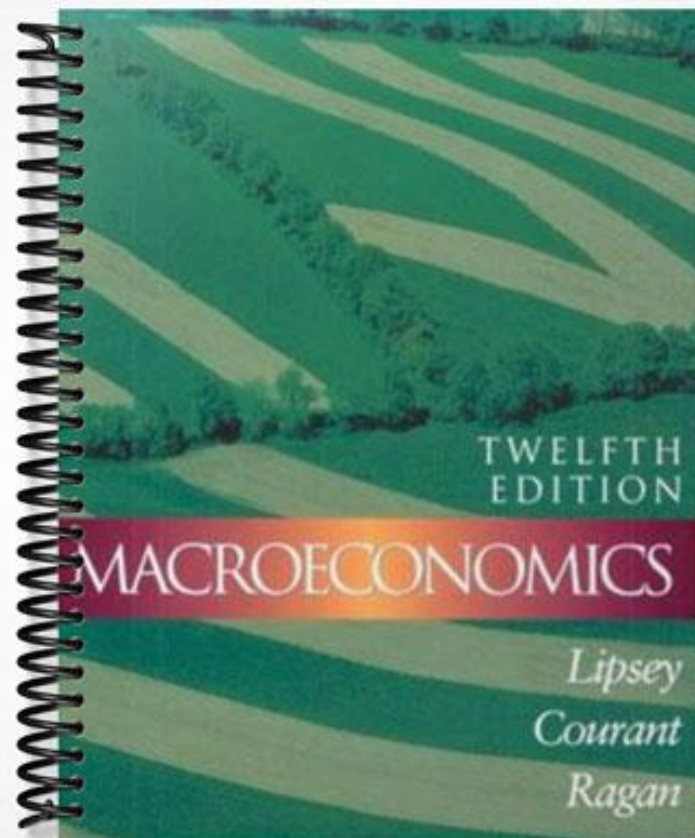


TEST BANK



MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Disagreements over positive statements 1) _____
A) cannot arise because positive statements are facts.
B) arise from the failure to distinguish between a positive and a normative statement.
C) are best handled by an appeal to the facts.
D) are basically devoid of any emotion.
E) never occur.
- 2) A positive statement is one that states 2) _____
A) non-negative numbers.
B) what should be but is not.
C) what is and what should be.
D) what is desirable.
E) what is, was, or will be.
- 3) Positive statements 3) _____
A) form the basis of all normative arguments.
B) have been verified by appeal to factual evidence.
C) are falsifiable in principle by appeal to factual evidence.
D) have no place in economics because economics deals only with value judgments.
E) are seldom employed in social sciences like economics.
- 4) Which of the following is a positive statement? 4) _____
A) Substitutes for fossil fuels should be developed.
B) Corporations in Canada should pay more taxes.
C) The higher the price for gasoline, the less of it will be consumed.
D) There should be one price for gasoline throughout Canada.
E) Canada should reduce its imports of consumer goods.
- 5) A normative statement 5) _____
A) is one that involves a value judgment.
B) has no place in the study and practice of economics.
C) can be derived logically from facts.
D) is a statement that is empirically testable.
E) concerns what is provable.
- 6) Which of the following is a normative statement? 6) _____
A) Reducing unemployment is more important than reducing inflation.
B) Queen Elizabeth II is the wealthiest woman in the world.
C) An increase in the price of lumber is followed by a decrease in the construction of new houses.
D) A government deficit will reduce unemployment and cause an increase in prices.
E) The sun rises in the west and sets in the east.
- 7) Which of the following is a normative statement? 7) _____
A) The higher is the level of taxes, the lower is consumption

spending.

- B) A free-trade agreement between two countries will result in an increase in trade.
 - C) Tuition fees should be waived for low-income students.
 - D) The higher is the level of taxes, the higher are wage demands.
 - E) A reduction in export taxes on petroleum would result in higher wages.
- 8) Suppose an economist tells you that the unemployment rate in Canada last year was 4.5 percent. This is an example of a(n) _____ statement. 8) _____
- A) autonomous
 - B) positive
 - C) induced
 - D) imputed
 - E) normative
- 9) Suppose an economist tells you that, on average, people in Canada have too much personal debt. This is an example of a(n) _____ statement. 9) _____
- A) positive
 - B) normative
 - C) independent
 - D) induced
 - E) autonomous
- 10) Which of the following statements belongs more properly in the field of normative economics than positive economics? 10) _____
- A) An increase in the minimum wage leads to more unemployment.
 - B) Technological change has reduced the cost of long-distance phone service.
 - C) Canadian farmers should be assisted by the federal government.
 - D) The price of one Canadian dollar is \$0.85 U.S.
 - E) When a drought occurs, the price of vegetables tends to rise.
- 11) Value judgments 11) _____
- A) are the basis for all economic models.
 - B) should be the only basis for public policies.
 - C) are basically the same for all individuals.
 - D) are subjective opinions that cannot be proven.
 - E) can be tested and verified.
- 12) Which of the following best describes the relationship between positive and normative statements in economics? 12) _____
- A) Neither positive nor normative statements are concerned with the desirability of certain economic changes.
 - B) Normative statements are those with which all economists agree; positive statements may give rise to some disagreement.
 - C) Economists generally agree with each other regardless of whether a question is positive or normative.
 - D) Positive and normative statements are alternate ways of describing the desirability of certain economic policies.
 - E) Normative statements evaluate the desirability of certain economic changes; positive statements do not.

- 13) A theory 13) _____
- A) is used to impose order on the world.
 - B) enables one to make prophesies about the future.
 - C) assumes definitions for variables.
 - D) is an explanation of how events are linked together.
 - E) is a scientific idea without useful application.
- 14) An assertion about the desirability of reducing unemployment by lowering payroll taxes is most likely 14) _____
- A) a normative statement.
 - B) a theory.
 - C) a positive statement.
 - D) a testable proposition.
 - E) a hypothesis.
- 15) Variables 15) _____
- A) are deduced from the assumptions.
 - B) explain the relationship among hypotheses.
 - C) provide an explanation of the variability of economic data.
 - D) outline the conditions under which the theory applies.
 - E) are magnitudes that can take on different possible values.
- 16) An economic theory requires all of the following EXCEPT: 16) _____
- A) a set of hypotheses about the relationships between the variables.
 - B) assumptions about motives of the people or firms involved.
 - C) a set of assumptions about the conditions under which the theory applies.
 - D) a set of definitions of the variables to be considered.
 - E) a set of value judgments to interpret the empirical evidence.
- 17) Choose the statement that best describes how endogenous variables differ from exogenous variables. 17) _____
- A) An endogenous variable is a flow, while an exogenous variable is a stock.
 - B) An exogenous variable is a function of the endogenous variable, and both are flow variables.
 - C) An endogenous variable is a function of the exogenous variable, and both are stock variables.
 - D) An endogenous variable is explained within the theory, while an exogenous variable influences the endogenous variables but is determined outside the theory.
 - E) An endogenous variable is explained outside the theory and influences an exogenous variable in a way determined by the theory.
- 18) Suppose there is a theory that several things influence the price of fish in Halifax, one of which is the weather during the fishing season. When examining the determinants of the price of fish, the weather is 18) _____
- A) an endogenous variable, as it influences the price of fish.
 - B) an exogenous variable, as it is determined outside the theory.
 - C) an act of God and, therefore, has no legitimate connection with the

theory.

- D) an endogenous variable, as it is determined within the theory.
- E) a stock, as it influences the quantity of fish caught.

- 19) The statement that a country's rate of economic growth is influenced by its firms' investment behaviour is an example of a(n) 19) _____
- A) normative statement.
 - B) economic law.
 - C) prediction.
 - D) theory.
 - E) variable.
- 20) The statement that a two-percent increase in the money supply leads to a two-percent increase in the price level is an example of a(n) 20) _____
- A) assumption.
 - B) hypothesis.
 - C) normative statement.
 - D) variable.
 - E) model.
- 21) Which of the following statements is FALSE? 21) _____
- A) A variable can take on different values.
 - B) A theory consists of definitions, variables, assumptions, hypotheses, and predictions.
 - C) Confronting its predictions with evidence tests a theory.
 - D) If predictions are logically deduced from assumptions, the predictions are necessarily true.
 - E) A hypothesis is a conditional statement.
- 22) The statement that introducing a policy of legislated rent controls will lead to a housing shortage is an example of a(n) 22) _____
- A) assumption.
 - B) theory.
 - C) prediction.
 - D) model.
 - E) normative statement.
- 23) A valid theory 23) _____
- A) allows one to deduce a normative statement.
 - B) extrapolates from the past behaviour of a variable to predict its future course.
 - C) appeals to the law of large numbers.
 - D) allows one to prove irrefutably one's hypothesis.
 - E) generates a hypothesis that can predict future events.
- 24) A theory 24) _____
- A) must be judged on its ability to explain and predict real-world phenomena.
 - B) will predict more accurately if it contains a greater number of mathematical equations.
 - C) will be useful only if all human behaviour is rational.
 - D) is only useful if its underlying assumptions are realistic.

E) will be useful as long as it is logically consistent.

- 25) Which of the following pairs of words have similar meanings? 25) _____
- A) induced and exogenous
 - B) induced and autonomous
 - C) independent and exogenous
 - D) dependent and exogenous
 - E) endogenous and autonomous
- 26) The statement that a country's rate of GDP growth is influenced by individuals' saving behaviour is an example of a(n) 26) _____
- A) prediction.
 - B) variable.
 - C) normative statement.
 - D) theory.
 - E) economic law.
- 27) When an increase in one variable is associated with a decrease in a second variable, the two variables are 27) _____
- A) negatively related.
 - B) inversely proportionally related.
 - C) positively related.
 - D) equivalent.
 - E) proportionally related.
- 28) Choose the answer that best explains why economists build models that abstract from the complexities of reality. 28) _____
- A) Because economics deals only in the abstract.
 - B) Because the complexities of reality are unimportant.
 - C) Because economists don't understand the real world.
 - D) Because economists are not interested in reality.
 - E) Because they believe they gain a greater understanding of reality.
- 29) Suppose an individual wheat farmer's income is influenced by the region's average daily temperature. When examining the determinants of individual farmer income, the average daily temperature is a(n) _____ variable. 29) _____
- A) flow
 - B) exogenous
 - C) endogenous
 - D) induced
 - E) dependent
- 30) Suppose we have data for 1000 students for a period of one year. The data show that those students who spend more hours studying have a higher grade point average (GPA). We can say that 30) _____
- A) more hours spent studying leads to a higher GPA.
 - B) there is a positive correlation between hours of study time and GPA.
 - C) having a higher GPA leads students to spend more time studying.
 - D) there is a causal relationship between hours of study time and GPA.

E) if hours of study time increase, then GPA will automatically increase.

- 31) Suppose economists at the World Bank discover a positive correlation between family income and female education levels in developing countries. We can say that 31) _____
- A) there is a causal relationship between family income and female education.
 - B) an increase in family income causes an increase in female education levels.
 - C) the correlation is inconsistent with a theory that an increase in female education levels causes an increase in family income.
 - D) an increase in female education levels causes an increase in family incomes.
 - E) the observed correlation is consistent with a theory that an increase in female education levels causes an increase in family income.
- 32) When using statistics in economics, the possibility of error 32) _____
- A) can be eliminated with more sophisticated statistical techniques.
 - B) cannot be eliminated.
 - C) is not considered to be important.
 - D) cannot be controlled.
 - E) cannot be evaluated.
- 33) Suppose that a particular theory predicts that on sunny days consumption will rise and that on cloudy days consumption will fall. If an economist tests this theory and finds that over a six-month period the theory predicts accurately, the economist would likely say 33) _____
- A) that the theory is not useful because consumption involves irrational human behaviour.
 - B) the theory has been proven correct.
 - C) the evidence fails to reject the theory.
 - D) the theory is always reliable.
 - E) the theory shouldn't be taken seriously.
- 34) A hypothesis (or a prediction) is a statement about 34) _____
- A) what will happen in the future.
 - B) how assumptions affect theories.
 - C) the relationship between facts explained by the hypothesis.
 - D) how two or more variables are related to each other.
 - E) those things which we believe to be true, but cannot prove.
- 35) A scientific prediction is 35) _____
- A) always based on the law of large numbers.
 - B) a conditional statement of the following form: if A occurs, then B will follow.
 - C) a prophesy of how the future will unfold.
 - D) a causal statement of the following form: A will occur because B occurred.
 - E) not testable.

- 36) Each of the following is an example of a hypothesis EXCEPT: 36) _____
- A) If the theatre catches on fire, then people will leave the theatre.
 - B) Charles does not enjoy movies.
 - C) If Charles attends the movie, then John will not attend.
 - D) If the price of a movie ticket increases, then John will attend fewer movies.
 - E) If the movie is starring Harrison Ford, then Charles and John will both attend.
- 37) Of the following, which is the most important characteristic of a successful theory? 37) _____
- A) the theory allows us to predict behaviour reasonably accurately.
 - B) the theory could never be refuted.
 - C) the theory provides a basis for facts about economic behaviour.
 - D) all assumptions on which the theory is based are true.
 - E) the theory adequately explains all economic behaviour.
- 38) When an economist assumes that the owners of firms are motivated only by the desire to maximize profits, the economist most likely believes that 38) _____
- A) the assumption is descriptively accurate, since surveys have been taken and the owners of firms have admitted that their only objective is to maximize profits.
 - B) all people enter business for their own selfish gain.
 - C) the assumption is inaccurate, since surveys have been taken and the owners of firms have admitted that they care about more than just profits.
 - D) individuals entering business are quite narrow in their personal objectives.
 - E) it doesn't matter whether or not the assumption is descriptively accurate; what matters is whether a theory built on the assumption predicts well.
- 39) An economic model that contains a highly realistic set of assumptions is 39) _____
- A) useful because there is then very little difference between "theory" and "reality".
 - B) necessarily better able to predict the future.
 - C) not likely to be useful because of its particularized nature and its intractability.
 - D) superior to a model whose assumptions are highly unrealistic.
 - E) more abstract than a model whose assumptions are further removed from reality.
- 40) Economists build models that abstract from the complexities of reality because 40) _____
- A) economists are not interested in reality.
 - B) the complexities of reality are unimportant.
 - C) it is easier to do so.
 - D) economists do not understand the real world.
 - E) they believe they gain a greater understanding of reality.

41) The assumptions of a theory 41) _____

- A) must be realistic if the theory is to be of any use.
- B) should never be based in any way on actual human behaviour.
- C) are indirectly refuted if and when the theory itself is rejected by empirical observation.
- D) are to be as unrealistic as possible.
- E) are not necessary for the scientific approach.

42) The scientific approach to economic inquiry involves all of the following EXCEPT: 42) _____

- A) observing the real world.
- B) controlling for the possibility of error.
- C) formulating a model to generate predictions.
- D) testing the predictions with empirical data.
- E) testing the reality of the assumptions of the model.

43) Economics is scientific because 43) _____

- A) economists can conduct laboratory experiments.
- B) it tests hypotheses by appealing to evidence.
- C) economists use data.
- D) individual behaviour is predictable.
- E) money can be used as a measuring rod similar to a metre stick in physics.

44) Which of the following statements is NOT correct? 44) _____

- A) Exposing them to empirical evidence can best test positive statements.
- B) Economic predictions will be fulfilled when their underlying hypotheses conform to actual human behaviour.
- C) Economists test their theories by confronting the predictions of their theories with the evidence drawn from the real world.
- D) Economic statements cannot be tested because human decisions involve free will.
- E) Normative statements cannot be tested by the scientific method.

45) Economic theories 45) _____

- A) must apply to all economies to be true.
- B) are not useful because of the unrealistic assumptions they contain.
- C) can be used to help explain and predict economic behaviour.
- D) cannot be tested because we cannot do economic "experiments".
- E) cannot help to predict future behaviour.

46) Using the scientific method to approach an economic issue involves 46) _____

- A) seeking agreement from colleagues regarding the correctness of the theory.
- B) considering stock and flow variables.
- C) finding the correct data to validate the theory.
- D) setting up a theory to explain it and then determining if the theory can be refuted by evidence.
- E) formulating normative statements about it.

47) In order to test a theory, one must 47) _____

- A) develop normative statements from the law of large numbers.

- B) develop a better explanation than the one presented.
- C) use assumptions that most closely reflect reality.
- D) confront the predictions of the theory with evidence.
- E) present a series of normative statements and positive statements.

- 48) An economic hypothesis will be rejected when 48) _____
- A) a single empirical observation is encountered in which its predictions fail.
 - B) the probability that it is wrong, based on empirical observation, is judged to be unacceptably high.
 - C) it is shown to be wrong with certainty by empirical observation.
 - D) one or more of the assumptions on which it is based fails to conform with reality.
 - E) the possibility of error has been completely eliminated.
- 49) Suppose that a particular theory predicts that on Monday, Wednesday, and Friday the stock market will rise and that on Tuesday and Thursday the stock market will fall. If an economist tests this theory and finds that over a six-month period the theory predicts accurately, the economist would likely say that the theory 49) _____
- A) is reliable.
 - B) is not useful because stock markets involve irrational human behaviour.
 - C) shouldn't be taken seriously.
 - D) has been proven correct.
 - E) is not rejected by the evidence.
- 50) The use of statistics in economics is 50) _____
- A) to test hypotheses and to estimate the values of variables in economic theories.
 - B) to model nature.
 - C) to study how the economic system should perform basic economic functions.
 - D) entirely devoid of ethical judgments.
 - E) for descriptive purposes only.
- 51) If a hypothesis is tested and rejected, 51) _____
- A) inquiry into the matter should cease.
 - B) it is rejected with certainty, because it is not possible to reject a hypothesis that is actually true.
 - C) a new hypothesis is usually suggested and tested.
 - D) the original data and assumptions should be discarded.
 - E) the statistical tolerance of risk for accepting a false hypothesis should be increased.
- 52) As a science, economics is disadvantaged in that 52) _____
- A) it is usually not possible to conduct controlled experiments in economics, in contrast with certain other sciences.
 - B) some economic variables are determined within the theory.
 - C) economic hypotheses cannot be accepted with complete certainty, by contrast with the other sciences.
 - D) economic variables do not change enough to provide reliable data

for testing hypotheses.

E) it deals with human behaviour and thus is not open to empirical testing.

53) Most economists believe that economics _____ be made completely value-free, in part because it is _____ to absolutely refute a theory on the basis of factual evidence. 53) _____

- A) can; impossible
- B) cannot; possible
- C) can; possible
- D) will; necessary
- E) cannot; impossible

54) When comparing the magnitude of changes in variables with different scales it is best to 54) _____

- A) compare the relative data on each variable.
- B) use only time-series data.
- C) express each variable as an index number.
- D) compare the absolute data on each variable.
- E) express each variable as a logarithmic number.

55) Index numbers make it possible to compare 55) _____

- A) movements in different variables measured in different units.
- B) movements in different variables measured in the same units.
- C) government data with private-sector data.
- D) time-series data with cross-sectional data.
- E) linear and logarithmic data.

56) The base year for an index number is 56) _____

- A) declared by the federal government.
- B) arbitrarily chosen for the specific purpose.
- C) dependant upon the type of data.
- D) the year of confederation.
- E) determined by the year the variable equals exactly 100.

57) For a given year, an index number of average prices (such as the Consumer Price Index) is the ratio of the 57) _____

- A) weighted prices of a typical bundle of goods purchased in the base year to that in the given year.
- B) average price of all goods in the given year to that in the base year.
- C) price of several goods in the given year to that in the base year.
- D) average price of several goods in the base year to that in the given year.
- E) weighted prices of a typical bundle of goods purchased in a given year to that in the base year.

58) An index number is used to 58) _____

- A) compare two different variables in two different situations.
- B) compare the same variable in two different situations.
- C) compare two different variables in the same situation.
- D) designate a specific value for further reference.
- E) measure the absolute value of a variable.

- 59) An index number expresses the value of a variable in any given period 59) _____
 A) as a weighted average.
 B) as a percentage of its value in the base period.
 C) as a proportional weighted average.
 D) as an absolute compared to the base period.
 E) as an average of its value in the base period.
- 60) For an index number of an average quantity or price, the weights used 60) _____
 must add up to 1 for
 A) neither a proportional-weights index nor an unweighted index.
 B) an unweighted index but not a proportional-weights index.
 C) price indexes only.
 D) a proportional-weights index but not an unweighted index.
 E) both a proportional-weights index and an unweighted index.
- 61) An unweighted index number 61) _____
 A) has equal weights attached to different data series.
 B) is not a real index number.
 C) has different weights for each data series depending on importance.
 D) has no weights attached to different data series.
 E) can only be used for price indexes.
- 62) Let 1 stand for "any given period" and 2 stand for "base period". The 62) _____
 formula of any index number can be written as:
 A) $\text{value of index at 1} = \frac{\text{absolute value at 2}}{\text{absolute value at 1}} \times 100$
 B) $\text{value of index at 1} = \frac{\text{relative value at 1}}{\text{relative value at 2}} \times 100$
 C) $\text{value of index at 1} = \frac{\text{absolute value at 1}}{\text{absolute value at 2}}$
 D) $\text{value of index at 1} = \frac{\text{absolute value at 1}}{\text{absolute value at 2}} \times 100$
 E) $\text{value of index at 1} = \frac{\text{relative value at 1}}{\text{relative value at 2}}$

The table below shows hypothetical tuition costs at a Canadian university.

<u>Year</u>	<u>Tuition</u>
2001	\$5000
2002	\$5050
2003	\$5100
2004	\$5150
2005	\$5200

TABLE 2-1

- 63) Refer to Table 2-1. Assume that 2001 is used as the base year, with the 63) _____
 index number = 100. The value of the index number in 2003 is calculated
 as follows:

- A) $5000/5100 = 0.98$
- B) $(5100/5000) \times 100 = 102$
- C) $5100/5100 = 100$
- D) $5100/5000 = 1.02$
- E) $(5000/5100) \times 100 = 98$

- 64) Refer to Table 2-1. Assume that 2001 is used as the base year, with the index number = 100. The value of the index number in 2005 is 64) _____
 A) 104 B) 1.04 C) 0.96 D) 96 E) 100
- 65) Refer to Table 2-1. The increase in tuition from 2001 to 2005 is: 65) _____
 A) 200/5200.
 B) 200.
 C) 4 percent.
 D) 0.04 percent.
 E) 200/5000.
- 66) An economist collects data comparing per-capita expenditures on health care across provinces and territories for the year 2006. The best way to illustrate this data is 66) _____
 A) a time-series bar chart diagram.
 B) a scatter diagram.
 C) a logarithmic scale diagram.
 D) a cross-sectional bar-chart graph.
 E) a time-series line graph.
- 67) An economist has data showing Canadian GDP for the years 1945-2005. The best way to illustrate these data is 67) _____
 A) a time-series line graph.
 B) a logarithmic scale diagram.
 C) a cross-sectional bar-chart graph.
 D) a time-series bar chart diagram.
 E) a scatter diagram.
- 68) An economist has data showing household income and energy consumption for 10 000 Canadian households. The best way to illustrate these data is 68) _____
 A) a time-series bar chart diagram.
 B) a time-series line graph.
 C) a cross-sectional bar-chart graph.
 D) a scatter diagram.
 E) a logarithmic scale diagram.
- 69) Data collected repeatedly over successive periods of time are called 69) _____
 A) topographic data.
 B) logarithmic data.
 C) time-analysis data.
 D) time-series data.
 E) cross-sectional data.
- 70) Data collected of several variables but for the same time period are called 70) _____
 called

- A) logarithmic data.
- B) time-analysis data.
- C) time-series data.
- D) topographic data.
- E) cross-sectional data.

71) A scatter diagram

71) _____

- A) shows the dependence of one variable on another.
- B) relates cross-sectional data only.
- C) plots a series of observations, showing the relationship between two variables.
- D) is a graph of a theoretical relationship between two variables.
- E) relates time series data only.

72) When it is said that variable A depends on variable B, then A is

72) _____

- A) proportional to B.
- B) partially exclusive of B.
- C) a function of B.
- D) a derivative of B.
- E) independent of B.

73) A functional relationship can be expressed in

73) _____

- A) words.
- B) a mathematical equation.
- C) a numerical table.
- D) a graph.
- E) all of the above.

74) When considering how a family's level of consumption changes in response to changes in its income,

74) _____

- A) there is no relationship between the variables.
- B) income is the dependent variable and family consumption is the independent variable.
- C) both of the variables are independent.
- D) both of the variables are dependent.
- E) consumption is the dependent variable and income is the independent variable.

75) The mathematical expression of a relationship between two or more variables is usually known as

75) _____

- A) a definition.
- B) an assumption.
- C) an observation.
- D) a theory.
- E) a function.

76) The statement "Y is a function of X" means that the

76) _____

- A) value of X depends on that of Y.
- B) values of Y and X are the same.
- C) values of Y and X are independent.
- D) values of Y and X are related to some third variable.
- E) value of Y depends on that of X.

- 77) When an increase in one variable is associated with an increase in a second variable, the two variables are 77) _____
- A) equivalent.
 - B) negatively related.
 - C) inversely proportionally related.
 - D) positively related.
 - E) proportionally related.
- 78) Negatively related variables change such that as the value of one variable 78) _____
- A) decreases, the value of the other variable remains the same.
 - B) increases, the value of the other variable increases.
 - C) decreases, the value of the other variable decreases.
 - D) increases, the value of the other variable remains the same.
 - E) increases, the value of the other decreases.
- 79) Positively related variables change such that as the value of one variable 79) _____
- A) decreases, the value of the other variable decreases.
 - B) increases, the value of the other variable remains the same.
 - C) decreases, the value of the other variable increases.
 - D) increases, the value of the other variable decreases.
 - E) decreases, the value of the other variable remains the same.
- 80) If Y is an increasing function of X, then 80) _____
- A) X remains constant as Y increases.
 - B) Y increases when X increases.
 - C) Y increases when X decreases.
 - D) X decreases when Y increases.
 - E) Y decreases when X increases.

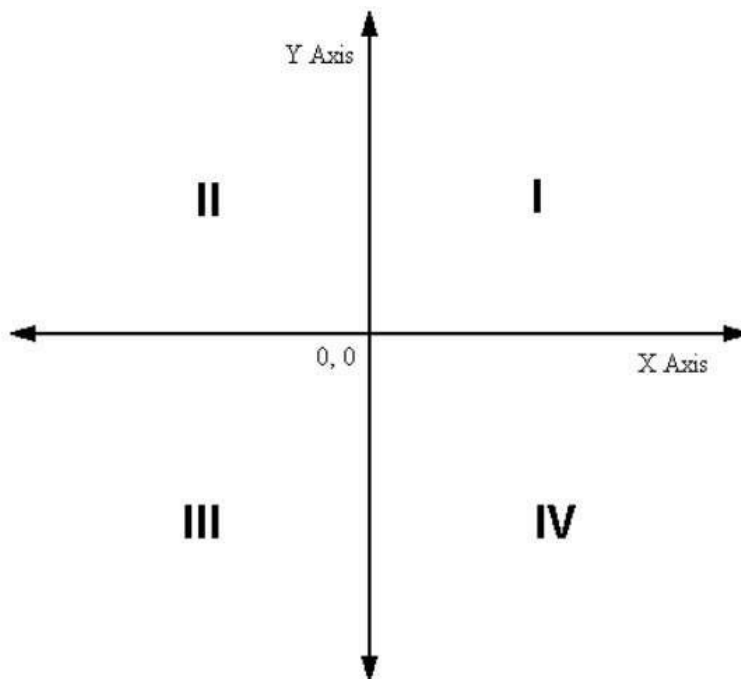


FIGURE 2-1

- 81) Refer to Figure 2-1. In this coordinate graph, the variable X is negative and the variable Y is positive in quadrant _____.
 A) II B) I C) IV D) III 81) _____
- 82) The slope of a straight line is necessarily _____
 A) negative.
 B) zero.
 C) increasing as one moves up the line.
 D) constant.
 E) positive. 82) _____
- 83) Suppose that two points on a straight line are $(X = 4, Y = 5)$, and $(X = 2, Y = 1)$. The slope of this line is _____
 A) $-1/2$. B) $1/2$. C) -2 . D) $4/5$. E) 2 . 83) _____
- 84) If the graph of a function is a horizontal line, the slope of this line is _____
 A) -1 .
 B) 0 .
 C) undefined.
 D) infinity.
 E) 1 . 84) _____
- 85) On a coordinate graph, what is the Y intercept of the function $X = 60 + 3Y$?
 A) 60 B) 0.1 C) -20 D) 3.0 E) 20 85) _____
- 86) Suppose point A represents coordinates $(X = 5, Y = 6)$ and point B represents coordinates $(X = 2, Y = 3)$. Then the slope of the straight line joining points A and B is _____
 A) -1 . B) $2/3$. C) $5/6$. D) 1 . E) $3/2$. 86) _____
- 87) The slope of a curve is _____
 A) negative if the curve rises to the right.
 B) always negative.
 C) always positive.
 D) positive if the curve rises to the right.
 E) always constant. 87) _____
- 88) Consider the line which is the graph of the function $Y = 60 - 4X$. The slope of this line is _____
 A) -4.0 . B) 60 . C) 4 . D) -40 . E) -2.5 . 88) _____
- 89) In a co-ordinate graph, with Y on the vertical axis and X on the horizontal axis, the variable X is positive and the variable Y is negative in the _____ quadrant. _____
 A) top, right B) bottom, right
 C) bottom, left D) top, left 89) _____
- 90) Suppose point A represents co-ordinates $(X=10, Y=12)$ and point B represents co-ordinates $(X=5, Y=7)$. Then the slope of the straight line joining points A and B is _____
 90) _____

- A) $2/3$. B) $5/6$. C) -1 . D) 1 . E) $3/2$.

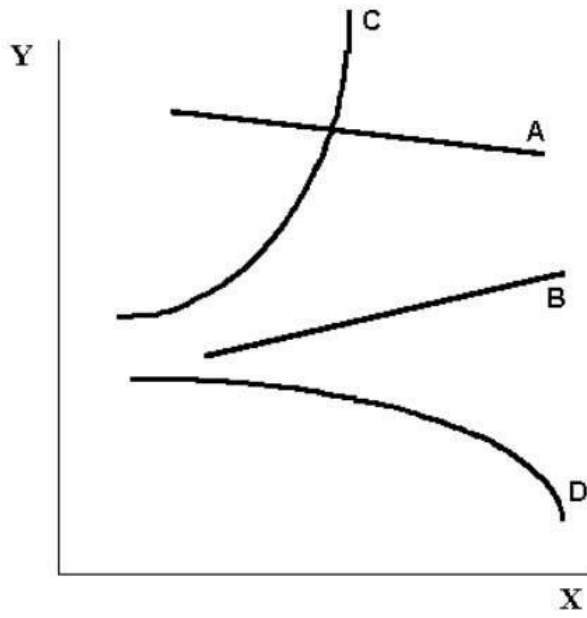


FIGURE 2-2

- 91) Refer to Figure 2-2. The slope of curve A is _____
A) negative and changing.
B) negative and constant.
C) positive and constant.
D) positive and changing.
E) undefined.
- 92) Refer to Figure 2-2. The slope of curve B is _____
A) negative and constant.
B) negative and changing.
C) positive and changing.
D) undefined.
E) positive and constant.
- 93) Refer to Figure 2-2. The slope of curve C is _____
A) positive and changing.
B) negative and constant.
C) impossible to describe.
D) positive and constant.
E) negative and changing.
- 94) Refer to Figure 2-2. The slope of curve D is _____
A) negative and changing.
B) positive and constant.
C) positive and changing.
D) undefined.
E) negative and constant.

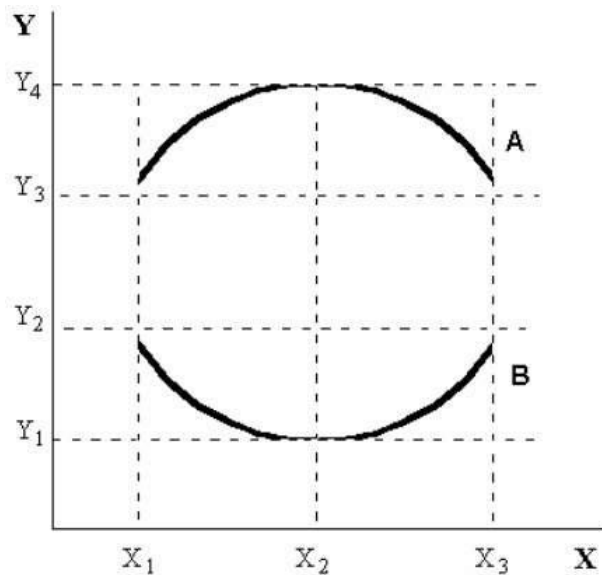


FIGURE 2-3

- 95) Refer to Figure 2-3. The slope of curve A is _____
- A) zero.
 - B) positive and variable.
 - C) negative from X_1 to X_2 and positive from X_2 to X_3 .
 - D) positive from X_1 to X_2 and negative from X_2 to X_3 .
 - E) negative and variable.
- 96) Refer to Figure 2-3. The slope of curve B is _____
- A) always positive but variable.
 - B) zero at X_2 .
 - C) negative from Y_1 to Y_2 and positive between Y_2 and Y_3 .
 - D) always negative but variable.
 - E) undefined at X_2 .
- 97) Refer to Figure 2-3. At X_2 on curve A, the _____
- A) maximum occurs at Y_1 .
 - B) slope is increasing.
 - C) minimum occurs at Y_4 .
 - D) slope of the curve is zero.
 - E) slope is decreasing.
- 98) Refer to Figure 2-3. On curve A, the maximum value of Y occurs at _____
- A) X_2 .
 - B) X_3 .
 - C) values of X greater than X_3 .
 - D) X_1 .
 - E) $X = 0$.
- 99) Refer to Figure 2-3. At X_2 on curve B, the _____
- A) minimum occurs at Y_4 .
 - B) slope is increasing.

- C) slope is decreasing.
- D) slope of the curve is zero.
- E) maximum occurs at Y_1 .

100) At the minimum or the maximum of the graph of a non-linear function (with x on the horizontal axis and y on the vertical axis) the slope of the curve is _____

- A) 1
- B) -1
- C) undefined
- D) 0
- E) infinite

101) At the minimum or the maximum of the graph of a non-linear function (with x on the horizontal axis and y on the vertical axis) the marginal response of y to a small change in x is _____

- A) 1
- B) 0
- C) infinite
- D) -1
- E) undefined

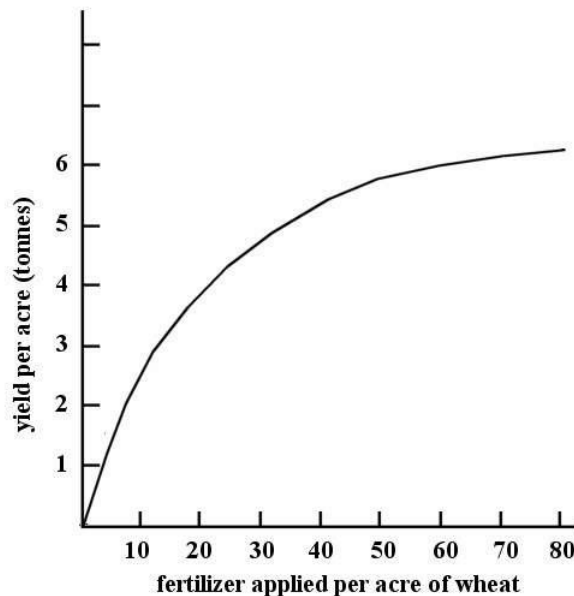


FIGURE 2-4

102) Refer to Figure 2-4. This non-linear function shows that over the range shown, _____

- A) as more fertilizer is applied, the marginal response in yield is increasing
- B) as the yield per acre increases, the amount of fertilizer required per acre is increasing.
- C) as the yield per acre increases, the amount of fertilizer required per acre is diminishing.
- D) as more fertilizer is applied, the marginal change in yield is diminishing.

E) as more fertilizer is applied, the total yield per acre is diminishing.

- 103) Refer to Figure 2-4. The functional relation shown between fertilizer applied and wheat yield can be described as a _____
A) constant marginal response.
B) decreasing total response
C) diminishing marginal response.
D) increasing partial response.
E) increasing marginal response.
- 104) Refer to Figure 2-4. The slope of the non-linear function changes as we move along the curve. The slope is _____
A) positive and increasing, indicating an increasing marginal response.
B) negative and increasing, indicating an increasing marginal response.
C) constant at all points, indicating a constant marginal response.
D) negative and decreasing, indicating a diminishing marginal response.
E) positive and decreasing, indicating a diminishing marginal response.

- 1) C
- 2) E
- 3) C
- 4) C
- 5) A
- 6) A
- 7) C
- 8) B
- 9) B
- 10) C
- 11) D
- 12) E
- 13) D
- 14) A
- 15) E
- 16) E
- 17) D
- 18) B
- 19) D
- 20) B
- 21) D
- 22) C
- 23) E
- 24) A
- 25) C
- 26) D
- 27) A
- 28) E
- 29) B
- 30) B
- 31) E
- 32) B
- 33) C
- 34) D
- 35) B
- 36) B
- 37) A
- 38) E
- 39) C
- 40) E
- 41) C
- 42) E
- 43) B
- 44) D
- 45) C
- 46) D
- 47) D
- 48) B
- 49) E
- 50) A
- 51) C

- 52) A
- 53) E
- 54) C
- 55) A
- 56) B
- 57) E
- 58) B
- 59) B
- 60) E
- 61) A
- 62) D
- 63) B
- 64) A
- 65) C
- 66) D
- 67) A
- 68) D
- 69) D
- 70) E
- 71) C
- 72) C
- 73) E
- 74) E
- 75) E
- 76) E
- 77) D
- 78) E
- 79) A
- 80) B
- 81) A
- 82) D
- 83) E
- 84) B
- 85) C
- 86) D
- 87) D
- 88) A
- 89) B
- 90) D
- 91) B
- 92) E
- 93) A
- 94) A
- 95) D
- 96) B
- 97) D
- 98) A
- 99) D
- 100) D
- 101) B
- 102) D
- 103) C

