Name $\qquad$

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

1) In a world characterized by scarcity
A) individuals need not work to obtain goods.
B) all goods are free.
C) we are not limited by time.
D) opportunity cost is zero.
E) people must make choices among alternatives.

Answer: E
2) Which of the following is the best definition of economics?
A) the study of how consumers spend their income
B) the study of how individuals, businesses, governments, and entire societies make choices as they cope with scarcity and the incentives that influence and reconcile those choices
C) the study of how a provincial government allocates tax dollars
D) the study of how producers decide what inputs to hire and what outputs to produce
E) the study of how consumers and producers meet each other in the market

Answer: B
3) Which of the following is a microeconomic topic?
A) the effect of the government budget deficit on inflation
B) the reasons why the labour force in a country decreases
C) the cause of increasing unemployment
D) the reasons why the average price level in a country falls
E) the reasons why a consumer buys less honey

Answer: E
4) The study of how wages are set for New Brunswick teachers is classified as
A) a macroeconomic topic.
B) a microeconomic topic.
C) normative economics.
D) economics of social interest.
E) economics of private interest.

Answer: B
5) Which of the following newspaper headlines concerns a macroeconomic issue?
A) How would a tax on e-commerce affect chapters.indigo.ca?
B) Why do grain producers purchase less pesticides?
C) Why are people buying more SUVs and fewer minivans?
D) Why is Japan's economy stagnant?
E) How would an unexpected freeze in Oxford, Nova Scotia change the price of blueberries in the Maritimes?

Answer: D
6) The branch of economics that studies the choices of individuals and businesses is
A) microeconomics.
B) positive economics.
C) normative economics.
D) macroeconomics.
E) social economics.

Answer: A
7) Each of the following would be considered a macroeconomic topic except
A) the reasons for a decrease in the unemployment rate.
B) the selection of production techniques.
C) the effect of the government budget deficit on inflation.
D) the determination of aggregate income.
E) the cause of recessions.

Answer: B
8) Complete the following sentence. Macroeconomics
A) deals mainly with the economic behaviour of households.
B) is primarily concerned with the operation of individual markets in the economy.
C) is the only part of economics to deal with government decisions.
D) is the study of the performance of the national economy and the global economy.
E) is primarily concerned with the behaviour of the stock market.

Answer: D
9) The determination of prices in individual markets is primarily a concern of
A) macroeconomics.
B) positive economics.
C) negative economics.
D) descriptive economics.
E) microeconomics.

Answer: E
10) Which one of the following topics does macroeconomics study?
A) the performance of the global economy
B) effects of taxes on the price of gasoline
C) decisions of individual firms
D) prices of individual goods and services
E) effects of government safety regulations on the price of cars

Answer: A
11) Which one of the following topics does microeconomics study?
A) determination of total production in a country
B) effect of interest rates on national economic growth
C) effect of the government budget deficit on employment
D) reasons for a fall in the price of orange juice
E) the effect of a rise in the Canadian dollar on Canada's exports

Answer: D
12) Complete the following sentence. Microeconomics is
A) not concerned with factors of production.
B) concerned exclusively with the role of the government in the economy.
C) concerned with the size of the total amount of income earned by all households in an economy.
D) the branch of economics that studies the choices of individuals and businesses.
E) concerned with normative issues only.

Answer: D
13) Which of the following would be considered a microeconomic topic?
A) the severity of a recession
B) the study of how wages are set for mine workers
C) the determination of aggregate income
D) the cause of unemployment in the economy
E) the effect of the government budget deficit on inflation

Answer: B
14) The branch of economics that studies the performance of the national economy and the global economy is
A) normative economics.
B) Keynesian economics.
C) microeconomics.
D) positive economics.
E) macroeconomics.

Answer: E
15) The fact that human wants cannot be fully satisfied with available resources is called the problem of
A) marginal cost.
B) opportunity cost.
C) scarcity.
D) the big tradeoff.
E) normative economics.

Answer: C
16) The problem of scarcity exists
A) in all economies.
B) only when people are unemployed.
C) now but will be eliminated with economic growth.
D) only in economies that lack incentives.
E) only in economies that have incentives.

Answer: A
17) The inescapable economic fact is that
A) capitalists are always exploiting the workers.
B) there are unlimited resources, and we just have to decide how to allocate them.
C) unions are always exploiting firms.
D) there are unlimited wants and limited resources.
E) capitalists and unions cannot work together.

Answer: D
18) An incentive
A) could be either a reward or a penalty.
B) is the opposite of a tradeoff.
C) occurs in the macroeconomy but not in the microeconomy.
D) could be a penalty but could not be a reward.
E) could be a reward but could not be a penalty.

Answer: A
19) Scarcity confronts
A) only families with incomes less than \$25,000 a year.
B) the poor but not the rich.
C) neither the poor nor the rich.
D) the rich but not the poor.
E) the rich and the poor.

Answer: E
20) The problem of scarcity applies
A) only in countries that are over- populated
B) to all countries, regardless of their level of development.
C) only in developing countries because resources are scarce in these countries
D) only in industrially developed countries because resources are scarce in these countries.
E) only in countries that use natural resources in most of their production processes

Answer: B
21) Operators of private dog parks in your city decide to eliminate their fees and allow dog owners to exercise their dogs in the parks at no charge.
This statement means that the incentive to exercise dogs at the dog park $\qquad$ .
The operators' decision is a $\qquad$ _.
A) remains the same; microeconomic decision
B) changes; microeconomic decision
C) changes; macroeconomic decision
D) remains the same; macroeconomic decision
E) changes; decision in the self- interest but not in the social interest

Answer: B
22) The two big economic questions
A) involve neither self- interest nor social interest.
B) do not arise from scarcity.
C) involve self- interest only.
D) involve both self-interest and social interest.
E) involve only social interest.

Answer: D
23) The two big economic questions
A) do not consider for whom goods and services are produced.
B) have nothing to do with the way goods and services are produced.
C) are "what goods and services are produced?" and "how are goods and services produced?"
D) summarize the scope of economics.
E) have nothing to do with goods and services.

Answer: D
24) The two big economic questions include all of the following except
A) for whom to produce.
B) how to produce.
C) what to produce.
D) why to produce.
E) a determination of whether the pursuit of self- interest also promotes the social interest.

Answer: D
25) When a firm decides to produce more hybrid cars and fewer gas guzzlers, it is answering the $\qquad$ question.
A) "when"
B) "where"
C) "how"
D) "what"
E) "who"

Answer: D
26) When a textile firm decides to produce more silk fabric and less cotton fabric, it is answering the $\qquad$ question.
A) "what"
B) "how"
C) "when"
D) "who"
E) "where"

Answer: A
27) When a farmer decides to harvest tomatoes using machines instead of migrant workers, the farmer is answering the $\qquad$ question.
A) "who"
B) "how"
C) "when"
D) "where"
E) "what"

Answer: B
28) Complete the following sentence. Capital is
A) composed of financial investment and commodities such as gold and silver.
B) the knowledge and skill that people obtain from education, on- the-job training, and work experience.
C) the tools, instruments, machines, buildings, and other constructions that businesses use to produce goods and services.
D) traded in stock markets and bond markets.
E) money in the bank.

Answer: C
29) When a firm decides to produce computers using robots instead of people, it is answering the $\qquad$ question.
A) "who"
B) "how"
C) "when"
D) "what"
E) "where"

Answer: B
30) To meet increased demand for its good, a firm decides to hire a few high- skilled workers, rather than hire many low- skilled workers. The firm is answering the $\qquad$ question.
A) "how"
B) "what"
C) "who"
D) "when"
E) "where"

Answer: A
31) An art museum decides to offer audio tour downloads rather than have tour guides. The museum is answering the $\qquad$ question.
A) "what"
B) "when"
C) "how"
D) "where"
E) "who"

Answer: C
32) To earn income, people sell the services of the factors of production they own. Land earns $\qquad$ and labour earns $\qquad$ .
A) wages; interest
B) rent; minimum wage
C) profit; wages
D) profit; interest
E) rent; wages

Answer: E
33) The fact that some people can afford to live in beautiful homes while others are homeless is an example of an economy facing the $\qquad$ question.
A) "when"
B) "for whom"
C) "where"
D) "what"
E) "how"

Answer: B
34) The fact that a hockey star earns $\$ 10$ million a year while a teacher earns $\$ 75,000$ annually is an example of an economy facing the $\qquad$ question.
A) "what"
B) "for whom"
C) "how"
D) "when"
E) "where"

Answer: B
35) Complete the following sentence. Entrepreneurship is
A) the human resource that organizes labour, land and capital.
B) traded on the stock market.
C) categorized as capital.
D) defined as money.
E) categorized as the factor of production labour.

Answer: A
36) Sue, who has a law degree, earns $\$ 200,000$ a year, while Chris, a high- school dropout, earns $\$ 15.00$ an hour. This is an example of an economy facing the $\qquad$ question.
A) "how"
B) "when"
C) "where"
D) "what"
E) "for whom"

Answer: E
37) A star athlete can afford a garage full of exotic cars while other people can only afford to take a city bus for transportation. This is an example of an economy facing the $\qquad$ question.
A) "what"
B) "when"
C) "how"
D) "where"
E) "for whom"

Answer: E
38) Complete the following sentence. Financial capital is
A) not subject to scarcity.
B) a service.
C) one of the "gifts of nature."
D) money, stocks, and bonds.
E) a factor of production.

Answer: D
39) Which factor of production earns the most income?
A) entrepreneurship
B) the stock market
C) capital
D) land
E) labour

Answer: E
40) What choices are best for the entire society?
A) self- interest choices
B) choices made by majority rule
C) choices made by well- meaning citizens
D) social interest choices
E) choices influenced by lobbyists

Answer: D
41) Self- interest choices are
A) never in the social interest.
B) those choices which are best for the person making them.
C) those choices that are best for all residents of a region.
D) choices that are agreed to by majority vote.
E) always in the social interest.

Answer: B
42) The expansion of international trade, borrowing and lending, and investment is
A) a corporate revolution.
B) the big tradeoff.
C) antiglobalization.
D) not in the best interests of most countries.
E) globalization.

Answer: E
43) Which of the following relates factors of production to the sources of income correctly?
A) Labour earns rent.
B) Land earns interest.
C) Capital earns profit.
D) Entrepreneurship earns rent.
E) Land earns rent.

Answer: E
44) Which statement about incomes earned by factors of production is false?
A) Natural resources earn rent.
B) Entrepreneurship earns profit.
C) Land earns rent.
D) Capital earns profit.
E) Labour earns wages.

Answer: D
45) A tractor is an example of which of the following factors of production?
A) land
B) entrepreneurship
C) energy
D) capital
E) labour

Answer: D
46) Which one of the following is an example of capital as a factor of production?
A) an automobile factory owned by Ford
B) natural gas
C) money held by Tim Hortons
D) a high school teacher
E) a Bell Canada bond

Answer: A
47) Which of the following would an economist classify as capital?
A) a deposit of silver
B) a computer
C) natural resources
D) entrepreneurship
E) land

Answer: B
48) Which one of the following is labour?
A) money
B) a carpenter's hammer
C) a singer's voice
D) a bread- slicing machine
E) a shoe factory

Answer: C
49) Which one of the following would economists classify as land?
A) an elementary school in Nova Scotia
B) an automotive plant in British Columbia
C) an oil rig in the Atlantic Ocean
D) automobiles parked in a parking lot in Manitoba
E) rich agricultural soil in Saskatchewan

Answer: E
50) Which one of the following is an example of a factor of production?
A) an IBM stock certificate
B) a computer game
C) a donut
D) an insurance policy
E) the skills of a welder

Answer: E
51) Which one of the following is an example of capital?
A) a carpenter
B) money
C) a university professor
D) a bread-slicing machine
E) pasture

Answer: D
52) The creation of a successful movie can influence the main questions that economics seeks to answer. Choose the statement that is false.
A) The movie influences the how question because the movie can create new production techniques, which can be used in subsequent films.
B) The movie influences the how question because it can use unknown actors or Academy Award winners.
C) The movie influences the what question because it can lead to spinoff goods or a new movie genre, which can result in the production of similar films.
D) The movie influences the when question because movie crews work on many different films and must be available for the entire production.
E) The movie influences the for whom question because the people who earn higher incomes through the movie production buy more goods and services.
Answer: D
53) Choose the correct statement.
A) In Canada today, manufacturing accounts for 50 percent of total production.
B) Canada produces more services than goods.
C) China's production of services is a greater percentage of its total production than Canada's.
D) Canada's production of manufacturing is a greater percentage of its total production than China's.
E) In Canada today, agriculture accounts for 30 percent of total production.

Answer: B
54) In Canada $\qquad$ percent of the adult population have completed high school and $\qquad$ percent have a college or university degree.
A) $55 ; 25$
B) $25 ; 95$
C) $100 ; 55$
D) $95 ; 25$
E) $95 ; 55$

Answer: D
55) Which of the following is not a factor of production?
A) the water used to cool a nuclear power plant
B) the effort of farmers raising cattle
C) the land used by a farmer to grow wheat
D) the wages paid to workers
E) the management skill of a small business owner

Answer: D
56) Which factor of production includes the "gifts of nature"?
A) capital
B) entrepreneurship
C) labour
D) human capital
E) land

Answer: E
57) Which of the following is not a factor of production?
A) Wilderness areas that have yet to be developed
B) Vans used by a bakery company for deliveries
C) National parks
D) Timmy who is developing a production schedule for a new product
E) 175 shares of Microsoft stock

Answer: E
58) An outcome is considered efficient if
A) it is not possible to make someone better off without making anyone else worse off.
B) as many people as possible are happy about the outcome.
C) there is the smallest difference possible between the highest income earned and the lowest income earned.
D) it is the best available choice for an individual.
E) everyone makes the same income.

Answer: A
59) According to Adam Smith
A) politicians are well- equipped to regulate corporations and intervene in markets to improve market outcomes.
B) the self- interest and the social interest never conflict.
C) in a market transaction buyers can either get what they want for less than they would be willing to pay or sellers can make a profit, but both buyers and sellers can't gain simultaneously.
D) government intervention in markets is not desirable because an invisible hand leads decisions made in pursuit of self-interest to unintentionally promote the social interest.
E) when big corporations pursue their self- interest of maximum profit, they will inevitably conflict with social interest.
Answer: D
60) Which one of the following news headlines definitely concerns the social interest?
A) The Maple Leafs Win the Stanley Cup
B) McDonald's Moves into Salads
C) Starbucks Expands in China
D) E Coli Test Results Must be Posted on Beaches
E) Pumpkin Spice Lattes Available Now!

## Answer: D

61) Which of the following statements is correct?
A) Agriculture accounts for 10 percent of total Canadian production.
B) Canada produces more agricultural goods than manufactured goods.
C) Canada produces more manufactured goods than services.
D) Canada produces more services than goods.
E) Canada produces more agricultural goods than services.

Answer: D
62) Opportunity cost is
A) the marginal benefit from an activity.
B) your value of leisure.
C) the money you spend on food, shelter, and clothing.
D) the value of your favourite activity.
E) the highest-valued alternative that we give up to get something.

Answer: E
63) During the next hour John can choose one of the following three activities: playing basketball, watching television, or reading a book. The opportunity cost of reading a book
A) is equal to the marginal benefit from reading the book.
B) depends on how much the book cost when it was purchased.
C) is the value of playing basketball if John prefers that to watching television.
D) depends on how much John enjoys the book.

E ) is the value of playing basketball and the value of watching television.
Answer: C
64) Sally has to decide whether to study for her economics test or her accounting test. If she chooses to study for accounting, her opportunity cost of studying accounting is
A) not comparable to the value of studying economics.
B) studying economics.
C) equal to the value of studying economics.
D) the future lost wages that will occur if she fails her accounting exam.
E) less than the value of studying economics.

Answer: B
65) When the government of Alberta chooses to build more roads, the required resources are no longer available to provide better healthcare facilities. This situation illustrates the concept of
A) marginal benefit.
B) monetary cost.
C) human capital.
D) entrepreneurship.
E) opportunity cost.

Answer: E
66) The concept of opportunity cost
A) is used in microeconomics but not macroeconomics.
B) suggests that individuals can achieve all they want.
C) is used in macroeconomics but not microeconomics.
D) is relevant only for developing countries.
E) suggests a major increase in public education spending means a reduced expansion in the public healthcare system.
Answer: E
67) To make choices, people must
A) be free from government constraint.
B) evaluate the values of alternative actions.
C) have unlimited resources.
D) have unlimited access to information at no cost.
E) be risk-takers.

Answer: B
68) When the government chooses to use resources to build a dam, those resources are no longer available to build a highway. This illustrates the concept of
A) a "how" tradeoff.
B) the big tradeoff.
C) macroeconomics.
D) opportunity cost.
E) a market.

Answer: D
69) Marginal benefit is
A) the benefit that arises from a decrease in an activity.
B) the cost of a decrease in an activity.
C) the cost of an increase in an activity.
D) the benefit that arises from an increase in an activity.
E) the sum of benefit and cost that arises from an increase in an activity.

Answer: D
70) "There can be too much of a good thing." This statement suggests that
A) a good may be produced to the point where its marginal benefit is equal to its marginal cost.
B) certain goods and services such as education and health care are inherently desirable and should be produced regardless of costs and benefits.
C) a good may be produced to the point where its marginal benefit exceed its marginal cost.
D) choices made in self- interest cannot be applied to many economic decisions.
E) a good may be produced to the point where its marginal cost exceeds its marginal benefit.

Answer: E
71) Which of the following sayings best describes opportunity cost?
A) "Love of money is the root of all evil."
B) "Make hay while the sun shines."
C) "Baseball has been very good to me."
D) "Boldly go where no one has gone before."
E) "There's no such thing as a free lunch."

Answer: E
72) If you take an additional class this term, you can graduate earlier. This is an example of
A) total cost.
B) opportunity cost.
C) the pursuit of social interest.
D) marginal benefit.
E) social cost.

Answer: D
73) Marginal benefit is the
A) total benefit from an activity.
B) opportunity cost of a decrease in an activity.
C) additional benefit from an increase in an activity.
D) additional benefit from a decrease in an activity.
E) opportunity cost of an increase in an activity.

## Answer: C

74) Complete the following sentence. Marginal cost is
A) the opportunity cost of a decrease in an activity.
B) the total cost of a decrease in an activity.
C) the opportunity cost of an increase in an activity.
D) the total cost of an activity.
E) equal to marginal benefit.

## Answer: C

75) Monika will choose to eat a seventh pizza slice if
A) the marginal benefit from the seventh slice is greater than its marginal cost.
B) the marginal benefit from the seventh slice is less than its marginal cost.
C) the total benefit from all seven slices is less than their total cost.
D) the total benefit from all seven slices is greater than their total cost.
E) she has enough money to pay for it.

Answer: A
76) The night before a history test, you decide to go to the movies instead of reviewing your notes. You get 60 percent on your test compared with the 75 percent that you normally score. You $\qquad$ a tradeoff and the opportunity cost of your evening at the movies was $\qquad$ -.
A) did not face; zero
B) faced; the 75 percent that you normally score
C) faced; the 15 percent fall in your grade
D) did not face; the 15 percent fall in your grade
E) faced; the mark of 60 percent on your test

Answer: C
77) A university decides to change its late night bus service between the campus and student housing from a fare-based service to a free service. This statement means that the incentive to ride the bus $\qquad$ and the opportunity cost of a bus ride $\qquad$ . The university's decision is a $\qquad$ decision.
A) remains the same; remains the same; macroeconomic
B) changes; increases; microeconomic
C) changes; decreases; microeconomic
D) changes; decreases; macroeconomic
E) remains the same; remains the same; microeconomic

## Answer: C

Use the information below to answer the following question.

## Fact 1.3.1 Costs Soar for London Olympics

The regeneration of East London, the site of the 2012 Olympic Games, is set to add extra $£ 1.5$ billion to taxpayers' bill. Source: The Times, London, July 6, 2006
78) Refer to Fact 1.3.1. The cost of regenerating East London $\qquad$ an opportunity cost of hosting the 2012 Olympic Games $\qquad$ _.
A) is; if the property taxes of people living in East London increase
B) is not; because few people attending the 2012 Olympics will spend much time outside Olympic venues
C) is not; because regenerating East London is an unnecessary expense
D) is; if the costs of the East London regeneration is equal to a significant percentage of the total amount spent by London taxpayers to host the 2012 Olympics
E) is; if the regeneration of East London would not occur unless London hosted the 2012 Olympics

## Answer: E

79) You have the choice of going on vacation to Florida for one week, staying at work for the week, or spending the week doing fix- up projects around your house. If you decide to go to Florida, the opportunity cost of the trip is
A) working or doing fix- up projects, depending on which you would have done otherwise.
B) nothing because you will enjoy the trip to Florida.
C) variable depending on the weather you leave behind in Canada.
D) working, because you would be giving up income.
E) working and doing fix- up projects.

Answer: A
80) Laura is a manager for HP. When Laura must decide whether to produce a few additional printers, she is choosing at the margin when she compares
A) the total revenue from sales of printers to the total cost of producing all the printers.
B) the revenue from selling HP's printers as compared to printers from competing companies, such as Lexmark.
C) the extra revenue from selling a few additional printers to the extra costs of producing the printers.
D) the cost of producing HP's printers as compared to printers from competing companies, such as Lexmark.
E) the extra revenue from selling a few additional printers to the average cost of producing the additional printers.
Answer: C
81) Which of the following creates an incentive to increase the amount of an activity?
A) constant marginal cost and constant marginal benefit from the activity
B) a decrease in the marginal cost of the activity and an increase in the marginal benefit from the activity
C) an increase in the marginal cost of the activity and an equal increase in the marginal benefit from the activity
D) an increase in the marginal cost of the activity and a decrease in the marginal benefit from the activity
E) a decrease in the marginal cost of the activity and an equal decrease in the marginal benefit from the activity
Answer: B
82) You have the choice to go skiing during spring break, staying at the university to study, or spending the week visiting your family. If you decide to go skiing, the opportunity cost of the holiday is
A) visiting your family because not visiting means that you will feel guilty.
B) staying at the university or spending the week visiting your family, depending on what you would have done otherwise.
C) nothing because you enjoy skiing.
D) staying at the university to study because you need to improve your grades.
E) staying at the university because your parents are paying your tuition.

Answer: B
83) Chanel has the option of purchasing one of three products: Brand A, Brand B, or Brand C. The price of each product is $\$ 10$. If Chanel decides to purchase Brand $A$, the opportunity cost of this decision is
A) $\$ 20$.
B) Brand B and Brand C.
C) zero if this is a frivolous purchase with no marginal benefit.
D) Brand B or Brand C, depending on which she considers to be the highest- valued alternative forgone.
E) Brand A.

Answer: D
84) Statements about "what ought to be" are called
A) economic statements.
B) hypotheses.
C) normative statements.
D) positive statements.
E) scientific statements.

Answer: C
85) Statements about "what is" are called
A) scientific statements.
B) normative statements.
C) hypotheses.
D) economic statements.
E) positive statements.

Answer: E
86) Which of the following statements is normative?
A) If income increases, sales of luxury goods fall.
B) As e-book prices fall, people buy more of them.
C) Scientists should not make normative statements.
D) There is more caffeine in a cup of tea than in a cup of coffee.
E) Warts are caused by handling toads.

Answer: C
87) A positive statement is
A) about what ought to be.
B) always false.
C) an opinion that cannot be verified.
D) always true.
E) what is currently believed about the way the world operates.

Answer: E
88) A normative statement is
A) about what is.
B) always false.
C) capable of evaluation, as true or false, by observation and measurement.
D) about what ought to be.
E) always true.

Answer: D
89) "The rich should face higher income tax rates than the poor." This is an example of
A) economic reasoning.
B) a negative statement.
C) a positive statement.
D) a normative statement.
E) neither a normative nor a positive statement.

Answer: D
90) Which of the following is an example of a positive statement?
A) Canada should cut back on its use of carbon- based fuels such as coal and oil.
B) Every Canadian should have equal access to healthcare.
C) Increasing the minimum wage results in more unemployment.
D) Canada should have lower tax rates for wealthier Canadians.
E) The Bank of Canada ought to cut the interest rate.

Answer: C
91) Complete the following sentence. Economic models
A) were first developed in the 1970 s.
B) describe some aspect of the economic world, but include only those features needed for the purpose at hand.
C) answer questions that arise from normative statements.
D) do not answer questions about the economic world.
E) include most of the details of the economic world.

Answer: B
92) The scientific purpose of simplifying assumptions in an economic model is to
A) eliminate the possibility of personal bias in the model.
B) add necessary hypotheses to the problem.
C) avoid confronting difficult issues.
D) abstract from the complexities of the real world those issues that are not important for the issues under examination.
E) eliminate the need for further testing of the implications of the model.

Answer: D
93) Model $A$ is superior to model $B$ if
A) it contains fewer unrealistic assumptions than model $B$.
B) it contains more real world detail than model $B$.
C) its predictions correspond more closely to the facts than the predictions of model $B$.
D) it is preferred by a majority of researchers in a public opinion poll.
E) it is scientifically "elegant."

Answer: C
94) In choosing among alternative models, economists generally have the strongest preference for models that
A) have assumptions that are complicated.
B) are detailed and complex, with every available fact and figure included.
C) have assumptions that are close to exact replicas of reality.
D) have few assumptions and are as simple as possible, even if they cannot predict very well.
E) predict better than any other that is available.

Answer: E
95) A normative statement is a statement regarding
A) the assumptions of an economic model.
B) what is usually the case.
C) what is.
D) the predictions of an economic model.
E) what ought to be.

Answer: E
96) An economic model is tested by
A) examining the realism of its assumptions.
B) comparing its complexity to other models that deal with similar issues.
C) comparing its predictions with the facts.
D) the Testing Committee of the Canadian Economic Association.
E) comparing its descriptions and examining the realism of its assumptions.

Answer: C
97) Which of the following is a positive statement?
A) Low rents are better for a city than high rents.
B) Housing costs too much.
C) Government should control the rents that apartment owners charge.
D) Low rents restrict the supply of housing.
E) Owners of apartment buildings ought to be free to charge whatever rent they want.

Answer: D
98) "The rich face higher income tax rates than the poor, which is not good since it is the rich who provide jobs for the poor." This is an example of
A) a positive statement.
B) a normative statement.
C) a negative statement.
D) a descriptive statement.
E) a theoretical statement.

Answer: B
99) An economic model is
A) useful if it predicts well, even if its assumptions are not realistic.
B) tested by the Testing Committee of the Canadian Economic Association.
C) tested by examining the realism of its assumptions.
D) not useful unless it predicts with 100 percent accuracy.
E) not useful because it simplifies real problems.

Answer: A
100) Select the best statement about economic models.
A) Economic models are all false.
B) An economic model will be discarded if its predictions are often in conflict with the facts.
C) An economic model is evaluated based on the realism of its assumptions.
D) An economic model must always be correct in its predictions or it must be discarded.
E) An economic model should not generate predictions about actual events in the real world, since it discusses only abstract events.
Answer: B
101) Economists test economic models by using
A) personal economic policy, business economic policy, and government economic policy.
B) the what, how, and for whom questions.
C) marginal benefit and marginal cost.
D) positive statements and normative statements.
E) natural experiments, statistical investigations, and economic experiments.

Answer: E
102) Which of the following statements are positive?

1. The federal government should increase production of biofuels.
2. Air travel has increased since September 11.
3. The greatest number of accidents are caused by drunk drivers.
4. We ought to have a cure for cancer.
A) Statements 1 and 2 are positive.
B) Statements 1 and 4 are positive.
C) Statements 2 and 4 are positive.
D) Statements 2 and 3 are positive.
E) Statements 3 and 4 are positive.

Answer: D
103) Which of the following statements are true regarding "positive" statements?
I. They describe what "ought to be."
II. They describe what is believed about how the world appears.
III. They can be tested as to their truthfulness.
A) I, II and III
B) I and III
C) I and II
D) II and III
E) None of the statements are true.

Answer: D
104) Which of the following is a normative statement?
A) Next year's inflation rate will be under 4 percent.
B) A wheat shortage or surplus is always the result of federal government policies.
C) Consumers will buy more gasoline over the December holiday period than they bought during the summer holiday period even if the price of gas is 10 cents a litre higher than it was during the summer.
D) Hurricane Irma caused more damage in the United States than Hurricane Harvey.
E) Government cuts in welfare spending impose an unfair hardship on the poor.

## Answer: E

105) When Al makes the statement, "The cost of living has increased 10 percent over the past 10 years," he is
A) making a positive statement.
B) identifying the standard of living- cost of living tradeoff.
C) making a negative statement.
D) making a normative statement.
E) testing an economic model.

Answer: A
106) A good economic model
A) includes only those features of the world that are needed for the purpose at hand.
B) includes only features of the world that can be described numerically.
C) does not include more than two variables.
D) includes more than two variables but less than 10 variables.
E) describes all aspects of the economic world.

Answer: A

Use the information below to answer the following questions.

## Fact 1.4.1 Costco

When Costco opened a gas bar just off Highway 401, the neighbourhood was swamped with cars as drivers lined up to get the discount of 10 cents a litre.
107) Refer to Fact 1.4.1. The opportunity cost of a litre of gas includes
A) the incentive to purchase a full tank of gas.
B) the time that you would have spent doing something other than lining up to buy a litre of gasoline.
C) the pleasure that motorists receive from buying cheaper gasoline.
D) the 10 cent discount on a litre of gasoline.
E) the amount of money that a consumer saves by buying gasoline at Costco.

Answer: B
108) Refer to Fact 1.4.1. To control the crowd Costco hires traffic police. When Costco hires traffic police, it faces a tradeoff that could include all of the following except
A) taking business away from gas stations in the area.
B) hiring more customer service representatives.
C) having a larger inventory of stock.
D) expansion of the warehouse.
E) having large seasonal displays.

Answer: A
109) Of the tasks listed below, an economics major would be best qualified to take a job
A) analyzing balance sheets.
B) determining ways of minimizing taxable income.
C) studying ways of using resources more effectively.
D) litigating.
E) determining the amount of tax owed.

Answer: C
110) According to the U.S. Bureau of Labor Statistics, between 2014 and 2024
A) financial analyst jobs are expected to grow by less than overall employment growth.
B) budget analyst jobs are expected to grow by less than overall employment growth because these jobs will be replaced by people with bookkeeping skills.
C) jobs for those with a Ph.D. in economics are forecasted to grow faster than overall employment growth because government jobs for economists are expected to expand.
D) market research analyst jobs are expected to grow by less than overall employment growth.
E) budget analyst jobs are expected to grow by less than overall employment growth because these jobs are easy to replace with artificial intelligence.
Answer: E
111) The most important skills needed for an economics job include
A) analytical skills and customer service skills.
B) critical- thinking skills and math skills.
C) oral communication skills and qualitative skills.
D) critical- thinking skills and entrepreneurial skills.

Answer: B
112) Choose the correct option regarding the earnings of economics majors.
A) Economists who work in finance, insurance, and government jobs earn less than other economists on average.
B) Market research analysts and financial analysts can generally expect to earn more at mid- career than a person with a Ph.D. in economics.
C) The Web resource payscale.com reports that the pay range for economists is between $\$ 25,000$ and \$250,000.
D) Graduates in economics can generally expect to earn more than graduates in sociology or business.
E) A person who majors in economics, completes a Ph.D., and gets a job as an economist would expect to earn about $\$ 250,000$ by mid- career.
Answer: D

Use the figure below to answer the following questions.


Figure 1A.1.1
113) The graphs in Figure 1A.1.1 are examples of
A) graphs that show no relationship between $x$ and $y$.
B) scatter diagrams.
C) dot graphs.
D) dot diagrams.
E) none of the above.

Answer: B

Use the figure below to answer the following questions.


Figure 1A.1.2
114) In Figure 1A.1.2, the value of $y$ is 5 when $x$ is
A) 4 .
B) 5 .
C) 6 .
D) 7 .
E) 8 .

Answer: D
115) Refer to Figure 1A.1.2. If $x$ decreases from 5 to $4, y$
A) decreases from 4 to $31 / 2$.
B) increases from $31 / 2$ to 4 .
C) decreases from 4 to 2 .
D) decreases from 4 to 3 .
E) increases from 4 to 5 .

Answer: A
116) Refer to Figure 1A.1.2. When $y$ increases from 5 to $6, x$
A) increases from 5 to 6 .
B) increases from 7 to $71 / 2$.
C) increase from 7 to 8 .
D) increase from 7 to 9 .
E) decreases from 9 to 7 .

Answer: D


Figure 1A.2.1
117) Refer to Figure 1A.2.1. Which graph or graphs indicates a positive relationship between $x$ and $y$ ?
A) (a)
B) (b)
C) (c)
D) (d)
E) (a) and (d)

Answer: A
118) Refer to Figure 1A.2.1. Which graph or graphs indicates a negative relationship between $x$ and $y$ ?
A) (a)
B) (b)
C) (c)
D) (d)
E) (b) and (d)

Answer: B
119) Refer to Figure 1A.2.1. Which graph or graphs indicates no relationship between $x$ and $y$ ?
A) (a)
B) (b)
C) (c)
D) (c) and (d)
E) (a) and (b)

Answer: D
120) Consider graph (a) of Figure 1A.2.1. Which one of the following statements is true?
A) $x$ and $y$ are negatively related.
B) $x$ and $y$ are unrelated.
C) $x$ and $y$ are positively related.
D) $x$ and $y$ move in opposite directions.
E) Both A and D are correct.

Answer: C
121) Consider graph (b) of Figure 1A.2.1. Which one of the following statements is true?
A) $x$ and $y$ are negatively related.
B) $x$ and $y$ are unrelated.
C) $x$ and $y$ are positively related.
D) $x$ and $y$ move in opposite directions.
E) Both A and D are correct.

Answer: E
122) Consider graph (d) of Figure 1A.2.1. Which one of the following statements is true?
A) $x$ and $y$ are negatively related.
B) $x$ and $y$ are unrelated.
C) $x$ and $y$ are positively related.
D) $x$ and $y$ move in opposite directions.
E) Both A and D are correct.

Answer: B
123) If variables $x$ and $y$ move up and down together, they are
A) positively related.
B) conversely related.
C) negatively related.
D) trendy.
E) unrelated.

Answer: A
124) Two variables are positively related if
A) any change in one causes an increase in the other.
B) increases in one are associated with increases in the other.
C) any change in one causes a decrease in the other.
D) decreases in one are associated with increases in the other.
E) increases in one are associated with decreases in the other.

Answer: B
125) Two variables are negatively related if
A) increases in one are associated with increases in the other.
B) both variables are less than zero.
C) increases in one are associated with decreases in the other.
D) any change in one causes an increase in the other.
E) any change in one causes a decrease in the other.

Answer: C
126) The relationship between two variables that are positively related is shown graphically by a line that
A) is vertical.
B) slopes upward to the right.
C) is above the $x$-axis and to the right of the $y$-axis.
D) is horizontal.
E) slopes downward to the right.

Answer: B
127) The relationship between two variables that are negatively related is shown graphically by a line that
A) is horizontal.
B) slopes downward to the right.
C) is below the $x$-axis and to the left of the $y$-axis.
D) slopes upward to the right.
$\mathrm{E})$ is vertical.
Answer: B

Use the figure below to answer the following questions.


Figure 1A.2.2
128) Refer to Figure 1A.2.2. The variables $x$ and $y$
A) are negatively related.
B) have a negative linear relationship.
C) are unrelated.
D) have a nonlinear relationship.
E) are positively related.

Answer: E

Use the figure below to answer the following question.


Figure 1A.2.3
129) In Figure 1A.2.3, the variables $x$ and $y$
A) are positively related.
B) move in the same direction.
C) are unrelated
D) are negatively related.
E) are always equal.

Answer: D
130) The relationship between two variables that move in opposite directions is shown graphically by a line that is
A) relatively steep.
B) positively sloped.
C) relatively flat.
D) curved.
E) negatively sloped.

Answer: E

Use the figure below to answer the following questions.


Figure 1A.2.4
131) Refer to Figure 1A.2.4. If economic theory predicts that higher levels of the rate of interest $(x)$ lead to lower levels of sales of houses $(y)$, which graph represents this economic relationship?
A) (a)
B) (b)
C) (c)
D) (d)
E) (a) or (d)

Answer: A
132) Refer to Figure 1A.2.4. If theory predicts that a rise in the wage rate $(x)$ leads to a rise in the amount of labour supplied in the economy $(y)$, which graph represents this relationship?
A) (a)
B) (b)
C) (c)
D) (d)
E) (a) or (c)

Answer: B
133) Refer to Figure 1A.2.4. Which of the graphs shows a positive relationship between $x$ and $y$ ?
A) (a)
B) (b)
C) (c)
D) (d)
E) both (b) and (d)

Answer: B
134) Refer to Figure 1A.2.4. Which one of the graphs shows a negative relationship between $x$ and $y$ ?
A) (a)
B) (b)
C) (c)
D) (d)
E) both (a) and (d)

Answer: A
135) Refer to Figure 1A.2.4. Suppose theory predicted that for low levels of quantity produced $(x)$ a firm's profits (y) were low, for medium levels of output their profits were high, and for high levels of output their profits were low again. Which one of the graphs would represent this relationship?
A) (a)
B) $(b)$
C) (c)
D) (d)
E) none of the graphs

Answer: E

Use the figure below to answer the following questions.


Figure 1A.2.5
136) Which curve or curves in Figure 1A. 2.5 shows a positive relationship between unemployment and inflation?
A) $A$
B) $B, C$, and $D$
C) $A$ and $C$
D) $A$ and $B$
E) none of the curves.

Answer: E
137) Which curve or curves in Figure 1A. 2.5 shows no relationship between unemployment and inflation?
A) $A$
B) $A$ and $B$
C) $B$ and $D$
D) $A$ and $C$
E) $B, C$, and $D$

Answer: A
138) Which curve or curves in Figure 1A. 2.5 shows a negative relationship between unemployment and inflation?
A) $A$
B) $B, C$, and $D$
C) B and C
D) $A$ and $D$
E) $A$ and $B$

Answer: B

Use the table below to answer the following question.

Table 1A.2.1

| Year | x | y |
| :--- | :--- | :--- |
| 2000 | 6.2 | 143 |
| 2001 | 5.7 | 156 |
| 2002 | 5.3 | 162 |

139) The data in Table 1A. 2.1 shows that
A) there is first a positive and then a negative relationship between $x$ and $y$.
B) $x$ and $y$ have a negative relationship.
C) there is first a negative and then a positive relationship between $x$ and $y$.
D) there is no relationship between $x$ and $y$.
E) $x$ and $y$ have a positive relationship.

Answer: B

Use the figure below to answer the following question.


Figure 1A.2.6
140) Refer to Figure 1A.2.6. Which one of the following statements is true?
A) $y$ reaches a maximum at point $C$.
B) $x$ and $y$ are positively related at all points between $A$ and $D$.
C) $x$ and $y$ are unrelated.
D) $x$ and $y$ are negatively related at all points between points $B$ and $D$.
E) $y$ reaches a minimum at point $C$.

Answer: A

Use the table below to answer the following question.

## Table 1A.2.2

| $y$ | 4 | 6 | 8 | 10 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $z$ | 1 | 2 | 3 | 4 | 5 |

141) Refer to Table 1A.2.2. What type of relationship exists between $y$ and $z$ ?
A) inverse
B) negative
C) positive
D) No consistent relationship exists.
E) first a positive relationship, then a negative one

Answer: C

Use the table below to answer the following question.

## Table 1A.2.3

| $w$ | 2 | 4 | 6 | 8 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $u$ | 15 | 12 | 9 | 6 | 3 |

142) Refer to Table 1A.2.3. What type of relationship exists between $w$ and $u$ ?
A) negative
B) positive
C) direct
D) No consistent relationship exists.
E) first a positive relationship, then a negative one

Answer: A

Use the figure below to answer the following question.


Figure 1A.2.7
143) Refer to Figure 1A.2.7. Consider the values for $x$ and $y$ given in the following table:

| $x$ | 2 | 4 | 6 | 8 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | 12 | 8 | 5 | 3 | 2 |

Which one of the graphs in Figure 1A.2.7 represents the relationship between $x$ and $y$ ?
A) (a)
B) (b)
C) (c)
D) (d)
E) (a) and (b)

Answer: D
144) The change in the value of the variable measured on the $y$ - axis divided by the change in the value of the variable measured on the $x$-axis is
A) constant.
B) a maximum or minimum.
C) decreasing.
D) slope.
E) increasing.

Answer: D
145) The slope of a horizontal line is
A) negative.
B) initially positive and then negative.
C) zero.
D) positive.
E) infinite.

Answer: C
146) The slope of a straight line
A) depends on where you measure the slope.
B) is the same at every point.
C) decreases as the variable on the $x$-axis increases if the slope is negative.
D) is the same at every point only if the line is horizontal.
E) increases as the variable on the $x$-axis increases if the slope is positive.

Answer: B

Use the figure below to answer the following questions.

(thousands of dollars per year)

Figure 1A.3.1
147) In Figure 1A.3.1, if household income increases by $\$ 1000$, household expenditure will A) increase by $\$ 1,333$.
B) decrease by $\$ 1,333$.
C) increase by $\$ 750$.
D) increase by $\$ 1,000$.
E) remain unchanged.

Answer: C
148) The slope of the line in Figure 1A.3.1 is
A) 1.25 .
B) 1.00
C) 0.75 .
D) 0.50 .
E) 1.50 .

Answer: C

Use the figure below to answer the following question.


Figure 1A.3.2
149) Refer to Figure 1A.3.2. The slope across the arc between $A$ and $B$ is
A) 3 .
B) 2 .
C) $1 / 2$.
D) $2 \beta$.
E) 1 .

Answer: C

Use the figure below to answer the following questions.


Figure 1A.3.3
150) Figure 1A.3.3 illustrates two variables, $x$ and $y$, which are
A) negatively related, with an increasing slope as $x$ increases.
B) positively related, with a decreasing slope as $x$ increases.
C) positively related, with slope first increasing then decreasing.
D) positively related, with an increasing slope as $x$ increases.
E) negatively related, with a decreasing slope as $x$ increases.

## Answer: B

151) In Figure 1A.3.3, the slope across arc $A B$ is
A) $3 / 2$.
B) 1 .
C) $5 \beta$.
D) $1 / 2$.
E) $5 / 2$.

Answer: E
152) In Figure 1A. 3.3 the relationship between $x$ and $y$ as $x$ increases is
A) positive with increasing slope.
B) negative with decreasing slope.
C) positive with slope first increasing then decreasing.
D) positive with decreasing slope.
E) negative with increasing slope.

Answer: D
153) What is the slope across the arc between $B$ and $C$ in Figure 1A.3.3?
A) 3
B) 1
C) $2 \beta$
D) $1 / 2$.
E) 2

Answer: B

Use the figure below to answer the following questions.


Figure 1A.3.4
154) Figure 1A.3.4 illustrates two variables, $x$ and $y$, which are
A) negatively related, with slope becoming closer to 0 as $x$ increases from 2 to 16 .
B) positively related, with the slope unchanging as $x$ increases from 2 to 16 .
C) negatively related, with slope becoming farther from 0 as $x$ increases from 2 to 16 .
D) positively related, with slope becoming closer to 0 as $x$ increases from 2 to 16 .
E) positively related, with slope becoming farther from 0 as $x$ increases from 2 to 16 .

Answer: A
155) In Figure 1A.3.4, the slope across arc $A B$ is
A) $2 \beta$.
B) $-9 / 4$.
C) -1 .
D) $-3 / 2$.
E) -3 .

Answer: D
156) In Figure 1A.3.4, the slope across arc $B C$ is
A) $-4 \beta$.
B) $-2 \beta$.
C) $-3 / 2$.
D) $-3 / 4$.
E) -2 .

Answer: D
157) Refer to Figure 1A.3.4. In Figure 1A.3.4, the slope at point $B$
A) is greater than $3 / 2$.
B) lies between $-3 / 4$ and $-3 / 2$.
C) lies between $-2 \beta$ and $-4 \beta$.
D) lies between 1 and $3 / 2$.
E) lies between $-2 \beta$ and -1 .

Answer: B

Use the figure below to answer the following questions.


Figure 1A.3.5
158) Refer to Figure 1A.3.5. Which one of the following statements is true?
A) The slope is greater between points $B$ and $C$ than between points $A$ and $B$.
B) The slope is less between points $A$ and $B$ than between points $B$ and $C$.
C) The slope at $C$ is 1 .
D) The slope at $C$ is 0 .
E) The slope at $C$ is negative.

Answer: D
159) Refer to Figure 1A.3.5. In Figure 1A.3.5, the slope across arc $B C$ is
A) $1 / 2$.
B) 1 .
C) 2 .
D) $5 / 6$.
E) $1 \beta$.

Answer: E
160) Refer to Figure 1A.3.5. In Figure 1A.3.5, the slope across $\operatorname{arc} C D$ is
A) 1 .
B) -1 .
C) $-1 / 2$.
D) $-5 / 8$.
E) $1 / 2$.

Answer: B

Use the table below to answer the following question.
Table 1A.3.1

| $y$ | 4 | 6 | 8 | 10 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $z$ | 1 | 2 | 3 | 4 | 5 |

161) Refer to Table 1A.3.1. Assuming $y$ is plotted on the vertical axis, the slope of the line is
A) - 2 when $x$ is between 1 and 3 , and then +2 when $x$ is between 4 and 5 .
B) constant at +2 .
C) constant at -2 .
D) -2 when $x$ is between 4 and 5 .
E) -2 when $x$ is between 1 and 3 .

Answer: B

Use the table below to answer the following questions.
Table 1A.3.2

| $w$ | 2 | 4 | 6 | 8 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $u$ | 15 | 12 | 9 | 6 | 3 |

162) In Table 1A.3.2, suppose that $w$ is measured along the $x$-axis. The slope of the line relating $w$ and $u$ is
A) negative with a constant slope.
B) positive with an increasing slope.
C) negative with a decreasing slope.
D) positive with a constant slope.
E) positive with a decreasing slope.

## Answer: A

163) Refer to Table 1A.3.2. Suppose that $w$ is measured along the $x$-axis. The slope of the line relating $w$ and $u$ is
A) $+3 / 2$.
B) $-3 / 2$.
C) +3 .
D) -3 .
E) $-2 \beta$.

Answer: B

Use the table below to answer the following questions.

## Table 1A.3.3

| $x$ | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | 10 | 8 | 6 | 4 | 2 | 0 | 2 | 4 | 6 | 8 |

164) Refer to Table 1A.3.3. If we were to draw a graph of this relationship, when would the slope be positive?
A) only if $x$ equals 5
B) only if $x$ is less than 5
C) never
D) only if $x$ is greater than 5
E) We do not have enough information to tell.

## Answer: D

165) Refer to Table 1A.3.3. When $x$ equals 5 , the slope is
A) +2 .
B) 0 .
C) 5 .
D) -2 .
E) infinite.

Answer: B
166) Refer to Table 1A.3.3. When $x$ equals 5 ,
A) the slope is negative.
B) $y$ is at a maximum.
C) the slope is positive.
D) $y$ is at a minimum.
E) the slope is first positive and then becomes negative.

Answer: D
167) At all points along a straight line, slope is
A) positive.
B) zero.
C) infinity.
D) constant.
E) negative.

Answer: D

Use the figure below to answer the following question.


Figure 1A.3.6
168) What is the slope of the line in Figure A1.3.6?
A) $1 \beta$
B) -3
C) $1 / 2$.
D) 2
E) 3

Answer: E

Use the figure below to answer the following question.


Figure 1A.3.7
169) The slope of the line in Figure 1A.3.7 is
A) -1 .
B) $1 / 2$.
C) 2 .
D) 1 .
E) dependent on where you measure it.

Answer: B

Use the figure below to answer the following question.


Figure 1A.3.8
170) The slope of the line in Figure 1A. 3.8 is
A) $-2 \beta$.
B) $2 \beta$.
C) $-3 / 2$.
D) $3 / 2$.
E) none of the above.

Answer: A

Use the figure below to answer the following questions.


Figure 1A.3.9
171) Refer to Figure 1A.3.9. Which one of the graphs shows a line with a zero slope?
A) (a)
B) (b)
C) (c)
D) (d)
E) (a), (b), and (c)

Answer: D
172) Refer to Figure 1A.3.9. Which one of the graphs shows a line with an infinite slope?
A) (a)
B) (b)
C) (c)
D) (d)
E) (b) and (c)

Answer: C

Use the figure below to answer the following questions.


Figure 1A.3.10
173) Refer to Figure 1A.3.10. The figure shows a relationship between two variables, $x$ and $y$. The slope at point $A$ is
A) -0.25 .
B) 0.25 .
C) -2 .
D) -4 .
E) 2 .

Answer: C

Use the figure below to answer the following question.


Figure 1A.3.11
174) Refer to Figure 1A.3.11. The graph shows a $\qquad$ relationship. The absolute value of the slope of the relationship $\qquad$ as the value of $x$ increases.
A) negative; decreases
B) negative; does not change
C) negative; increases
D) positive; increases
E) positive; decreases

Answer: C
175) To graph a relationship among three variables we
A) graph each of the three variables using a separate set of axes.
B) must be able to draw in three dimensions.
C) must be able to allow all three variables to vary simultaneously in one graph.
D) hold two variables constant to graph the third variable.
E) hold one variable constant and graph the relationship between the other two variables.

Answer: E

Use the table below to answer the following questions.
Table 1A.4.1

| $x$ | 120 | 100 | 80 | 140 | 120 | 100 | 160 | 140 | 120 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | 10 | 12 | 14 | 10 | 12 | 14 | 10 | 12 | 14 |
| $z$ | 4 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 |

176) Given the data in Table 1A.4.1, holding $z$ constant, the graph of $x$ and $y$
A) is a positively sloped line.
B) does not have a constant slope.
C) reaches a minimum.
D) is a negatively sloped line.
E) reaches a maximum.

Answer: D
177) Given the data in Table 1A.4.1, holding $y$ constant, the graph of $x$ and $z$
A) reaches a minimum.
B) reaches a maximum.
C) is a positively sloped line.
D) shows that $x$ and $z$ are not related.

E ) is a negatively sloped line.
Answer: C
178) Consider the data in Table 1A.4.1. Suppose $z$ increases from 4 to 5 . What will happen to the graph of the relationship between $x$ and $y$ ?
A) It will shift to the right.
B) It will become positively sloped.
C) It will shift to the left.
D) both A and C
E) both B and C

Answer: A

Use the figure below to answer the following question.


Figure 1A.4.1
179) Given the data in the following table, which one of the graphs in Figure 1A.4.1 correctly represents the relationship among $x, y$, and $z$ ?

| $x$ | 120 | 100 | 80 | 140 | 120 | 100 | 160 | 140 | 120 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | 10 | 12 | 14 | 10 | 12 | 14 | 10 | 12 | 14 |
| $z$ | 4 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 |

A) (a)
B) $(b)$
C) (c)
D) (d)
E) (b) and (c)

Answer: D

Use the figure below to answer the following question.


Figure 1A.4.2
180) Given the data in the following table, which one of the graphs in Figure 1A.4.2 correctly represents the relationship among $x, y$, and $z$ ?

| $x$ | 120 | 100 | 80 | 140 | 120 | 100 | 160 | 140 | 120 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | 10 | 12 | 14 | 10 | 12 | 14 | 10 | 12 | 14 |
| $z$ | 4 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 |

A) (a)
B) $(b)$
C) (c)
D) (d)
E) (a) and (d)

Answer: C

Table 1A.4. 2

| Family income <br> (dollars per week) | Price of strawberries <br> (dollars per box) | Number of boxes <br> purchased per week |
| :---: | :---: | :---: |
| 300 | 1.00 | 5 |
| 300 | 1.25 | 3 |
| 300 | 1.50 | 2 |
| 400 | 1.00 | 7 |
| 400 | 1.25 | 5 |
| 400 | 1.50 | 4 |

181) Table 1A.4.2 shows that
A) the price of strawberries is negatively related to family income, holding purchases of strawberries constant.
B) there is no relationship between the price of strawberries and the number of boxes purchased.
C) the number of boxes of strawberries purchased is negatively related to the price of strawberries, holding income constant.
D) the number of boxes of strawberries purchased is negatively related to income, holding the price of strawberries constant.
E) there is no relationship between family income and the number of boxes of strawberries purchased.

Answer: C
182) Given the data in Table 1A.4.2, holding income constant, the graph relating the price of strawberries, measured on the $y$-axis and the purchases of strawberries, measured on the $x$-axis
A) is a positively sloped line.
B) is a vertical line.
C) is a negatively sloped line.
D) is a horizontal line.
E) reaches a minimum.

Answer: C
183) Given the data in Table 1A.4.2, suppose family income decreases from $\$ 400$ to $\$ 300$ per week. Then the graph relating the price of strawberries, measured on the $y$-axis and the number of boxes of strawberries purchased, measured on the $x$-axis will
A) become negatively sloped.
B) shift rightward.
C) no longer exist.
D) shift leftward.
E) become positively sloped.

Answer: D
184) Given the data in Table 1A.4.2, holding price constant, the graph of the purchases of strawberries, measured on the $x$-axis and family income, measured on the $y$-axis is a
A) horizontal line.
B) vertical line.
C) positively or negatively sloped line, depending on the price that is held constant.
D) positively sloped line.
E) negatively sloped line.

Answer: D

Use the figure below to answer the following questions.


Figure 1A.4.3
185) In Figure 1A.4.3, $x$ is
A) greater than $z$.
B) negatively related to both $y$ and $z$.
C) positively related to $y$ and negatively related to $z$.
D) positively related to both $y$ and $z$.
E) negatively related to $y$ and positively related to $z$.

## Answer: E

186) In Figure 1A.4.3, a decrease in the value of $z$ results in, ceteris paribus,
A) no change in the value of $y$.
B) an increase in the value of $y$.
C) a decrease in the value of $x$.
D) no change in the value of $x$.
E) an increase in the value of $x$.

Answer: C


Figure 1A.4.4
187) Complete the following sentence. In Figure 1A.4.4, $z$ is
A) negatively related to $x$ and positively related to $y$.
B) related to $y$ but not related to $x$.
C) positively related to $x$ and negatively related to $y$.
D) negatively related to both $x$ and $y$.
E) positively related to both $x$ and $y$.

Answer: A
188) Consider the following information on cola sales by number of cases for a typical university residence floor:

| Price (dollars per case) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Temp. <br> $\left({ }^{\circ} \mathrm{C}\right)$ 10.00 12.50 15.00 | 17.50 |  |  |  |
| 15 | 50 | 40 | 30 | 20 |
| 20 | 60 | 50 | 40 | 30 |
| 25 | 70 | 60 | 50 | 40 |
| 30 | 80 | 70 | 60 | 50 |
| 35 | 90 | 80 | 70 | 60 |

Cola sales and cola prices are
A) not affected by the temperature.
B) unrelated.
C) inversely related.
D) positively related.
E) negatively related at low temperatures, but positively related at high temperatures.

Answer: C
189) Consider the following information on cola sales by number of cases for a typical university residence floor:

| Price (dollars per case) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Temp. <br> $\left({ }^{\circ} \mathrm{C}\right)$ 10.00 12.50 15.00 | 17.50 |  |  |  |
| 15 | 50 | 40 | 30 | 20 |
| 20 | 60 | 50 | 40 | 30 |
| 25 | 70 | 60 | 50 | 40 |
| 30 | 80 | 70 | 60 | 50 |
| 35 | 90 | 80 | 70 | 60 |

Cola sales and temperature are
A) not affected by the price.
B) unrelated.
C) inversely related.
D) positively related.
E) negatively related at low prices, but positively related at high prices.

Answer: D

Use the figure below to answer the following questions.


Figure 1A.4.5
190) Consider the following information on cola sales by number of cases for a typical university residence floor:

> Price (dollars per case)

| Temp. <br> $\left({ }^{\circ} \mathrm{C}\right)$ | 10.00 | 12.50 | 15.00 | 17.50 |
| :---: | :---: | :---: | :---: | :---: |
| 15 | 50 | 40 | 30 | 20 |
| 20 | 60 | 50 | 40 | 30 |
| 25 | 70 | 60 | 50 | 40 |
| 30 | 80 | 70 | 60 | 50 |
| 35 | 90 | 80 | 70 | 60 |

Refer to Figure 1A.4.5. Which line shows the relationship of cola sales and its price when the temperature is $30^{\circ} \mathrm{C}$
A) $A$
B) $B$
C) $C$
D) $D$
E) $E$

Answer: D
191) Consider the following information on cola sales by number of cases for a typical university residence floor:

| Price (dollars per case) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| $\left.\begin{array}{\|l\|c\|c\|c\|}\hline \begin{array}{l}\text { Temp. } \\ \left({ }^{\circ} \mathrm{C}\right)\end{array} & 10.00 & 12.50 & 15.00\end{array}\right) 17.50$ |  |  |  |  |
| 15 | 50 | 40 | 30 | 20 |
| 20 | 60 | 50 | 40 | 30 |
| 25 | 70 | 60 | 50 | 40 |
| 30 | 80 | 70 | 60 | 50 |
| 35 | 90 | 80 | 70 | 60 |

Refer to Figure 1A.4.5. Which line shows the relationship of cola sales and the temperature when the price of a ci \$15.00?
A) $A$
B) $B$
C) $C$
D) $D$
E) none of the above.

Answer: E
192) Consider the following information on cola sales by number of cases for a typical university residence floor:

| Price (dollars per case) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Temp. <br> $\left({ }^{\circ} \mathrm{C}\right)$ 10.00 12.50 15.00 | 17.50 |  |  |  |
| 15 | 50 | 40 | 30 | 20 |
| 20 | 60 | 50 | 40 | 30 |
| 25 | 70 | 60 | 50 | 40 |
| 30 | 80 | 70 | 60 | 50 |
| 35 | 90 | 80 | 70 | 60 |

Refer to Figure 1A.4.5. Which one of the following represents what happens when the temperature rises from $20^{\text {c }}$ $25^{\circ} \mathrm{C}$ ?
A) The curve shifts from $C$ to $B$.
B) The curve shifts from $A$ to $B$.
C) The curve shifts along line $C$.
D) The curve shifts from $B$ to $C$.
E) The curve shifts along line $B$.

Answer: D
193) The Latin term ceteris paribus means
A) "If all other relevant things remain the same."
B) "The whole is not the sum of the parts."
C) "Compositions are fallacious."
D) "Fallacies are composed."
E) "Innocent until proven guilty."

Answer: A

Use the table below to answer the following question.
Table 1A.4.3

|  |  | Ice creamconsumption(litres per day) |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Price (dollars per scoop) | $\begin{gathered} 0 \\ \text { degrees } \end{gathered}$ | $\begin{gathered} 10 \\ \text { degrees } \end{gathered}$ | $\begin{gathered} 20 \\ \text { degrees } \end{gathered}$ | $\begin{gathered} 30 \\ \text { degrees } \end{gathered}$ |
| 2.00 | 12 | 18 | 25 | 50 |
| 2.50 | 10 | 12 | 18 | 37 |
| 3.00 | 7 | 10 | 13 | 27 |
| 3.50 | 5 | 7 | 10 | 20 |
| 4.00 | 3 | 5 | 7 | 14 |

194) Refer to Table 1A.4.3. The table shows some data on the quantity of ice cream consumed at different prices and in different weather conditions. To draw a graph of the relationship between the quantity of the ice cream consumed and the price of ice cream, we must
A) hold the price constant at any of the five levels shown.
B) hold the temperature constant at any of the four levels shown.
C) pick the temperature that prevailed when the price was $\$ 2.00$.
D) increase the temperature as the price rises.
E) decrease the temperature as the price rises.

Answer: B

Use the figure below to answer the following question.


Figure 1A.5.1
195) The equation of the line in Figure 1A.5.1 is
A) $y=-3+2 x$.
B) $y=1.5+0.5 x$.
C) $y=1.5-0.5 x$.
D) $y=1.5+2 x$.
E) dependent on where you measure it.

## Answer: B

Use the figure below to answer the following question.


Figure 1A.5.2
196) If the line in Figure 1A.5.2 were to continue down to the $x$-axis, what would the value of $x$ be when $y$ is zero?
A) $-3 / 2$.
B) 0
C) 2
D) $-2 \beta$
E) $2 \beta$

Answer: D
197) If the equation of a straight line is $y=6+3 x$, then the slope is
A) 3 and the $y$-axis intercept is 6 .
B) 3 and the $y$-axis intercept is -2 .
C) 3 and the $y$-axis intercept is -6 .
D) -3 and the $y$-axis intercept is -2 .
E) -3 and the $y$-axis intercept is 6 .

Answer: A
198) If the equation of a straight line is $y=8-2 x$, then the slope is
A) -2 and the $x$-axis intercept is 8 .
B) -2 and the $x$-axis intercept is 4 .
C) -2 and the $x$-axis intercept is -4 .
D) 2 and the $x$-axis intercept is 4 .
E) 2 and the $x$-axis intercept is -4 .

Answer: B
199) The equation of a line is $y=4+2 x$. What is the $y$-axis intercept of this line?
A) -2
B) 0
C) $-1 / 2$
D) $1 / 4$
E) 4

Answer: E
200) The equation of a line is $y=4+2 x$. What is the $x$-axis intercept of this line?
A) 0
B) -2
C) $1 / 4$
D) 4
E) $-1 / 2$

Answer: B
201) The equation of a line is $y=4+2 x$. What is the slope of this line?
A) $1 / 2$
B) 0
C) 2
D) $1 / 4$
E) 4

Answer: C

Use the figure below to answer the following question.


Figure 1A.5.3
202) The equation of a line is $y=4+2 x$. Which one of the graphs in Figure 1A.5.3 represents this line?
A) (a)
B) $(b)$
C) (c)
D) (d)
E) none of the graphs

Answer: E

Use the figure below to answer the following question.


Figure 1A.5.4
203) Refer to Figure 1A.5.4. The graph shows the relationship between two variables, $x$ and $y$. This relationship is described by the equation
A) $y=-5 x+10$.
B) $x=10+5 y$.
C) $y=10 x+5$.
D) $y=5 x^{2}+10$.
E) $y=5 x+10$.

Answer: E

Use the figure below to answer the following question.


Figure 1A.5.5
204) Refer to Figure 1A.5.5. The graph shows the relationship between two variables, $x$ and $y$. Which of the following equations describes this relationship?
A) $y=3 x+15$
B) $y=15 x+3$
C) $y=-3 x+15$
D) $y=-3 x^{2}+15$
E) $x=15 y+3$

Answer: A
205) Which of the following equations describes a straight line with a $y$-axis intercept of -2 and a slope of -5 ?
A) $y=-5 x$
B) $y=-5-2 x$
C) $y=-2$
D) $y=-2-5 x$
E) $x=-2-5 y$

Answer: D

