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| ​  ​  **INSTRUCTIONS:** The following selections relate to distinguishing arguments from nonarguments and identifying conclusions. Select the best answer for each. |

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| 1. Most partnerships have difficulty attracting substantial amounts of capital. This is generally not a problem for a slow growing business. But if a business's products or services really catch on, the difficulty in attracting capital becomes a real drawback. For these reasons, many growth companies, which begin life as a proprietorship or partnership, at some point find it necessary to convert to a corporation.  Eugene F. Brigham, *Financial Management: Theory and Practice*   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: This is generally not a problem ... business. | |  | b. | Nonargument. | |  | c. | Argument; conclusion: But if a business's products ... becomes a real drawback. | |  | d. | Argument; conclusion: Many growth companies ... to convert to a corporation. | |  | e. | Argument; conclusion: Most partnerships have difficulty ... amounts of capital. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 2. The world's oceans are salty because the water has dissolved salt from rocks. Streams and rivers flowing over rocks for eons have carried the salt to the sea. Also, water on the ocean floor flows into thermal vents, where it becomes heated and dissolves salt from the oceanic crust. Finally, water in the vicinity of submarine volcanoes dissolves salt from the molten lava.  April Holladay, "Seas Are Salty But Don't Get Any Saltier"   |  |  |  | | --- | --- | --- | |  | a. | Nonargument. | |  | b. | Argument; conclusion: The world's oceans are salty. | |  | c. | Argument; conclusion: The water has dissolved salt from rocks. | |  | d. | Argument; conclusion: Streams and rivers ... salt to the sea. | |  | e. | Argument; conclusion: Water in the vicinity ... molten lava. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 3. No theorist has more emphatically stressed the social determinants of personality than Erich Fromm. As a humanistic personologist, Fromm argued that a person's behavior can be understood only in the light of cultural forces existing at a particular moment in history. He believed that needs unique to the human being evolved through the history of humankind and that different social systems have influenced their expression.  Larry A. Hjelli and Daniel J. Ziegler, *Personality Theories*   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: No theorist has more emphatically ... Erich Fromm. | |  | b. | Nonargument. | |  | c. | Argument; conclusion: He believed that needs ... history of humankind. | |  | d. | Argument; conclusion: He believed that different social systems ... expression. | |  | e. | Argument; conclusion: As a humanistic personologist ... moment in history. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 4. Tobacco smoke is a much deadlier carcinogen and triggers a broader variety of cancers than previously believed. A new study provides definitive evidence that secondhand smoke increases the risk of those exposed by 20%. Also, the study firmly links smoking to stomach, liver, cervical, and kidney cancer, as well as to myeloid leukemia. Such links were previously suspected but not proved.  Thomas Maugh II, "Smoking Goes from Bad to Worse"   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: The study firmly links ... myeloid leukemia. | |  | b. | Argument; conclusion: Such links were previously suspected but not proved. | |  | c. | Argument; conclusion: Tobacco smoke is a much deadlier ... believed. | |  | d. | Argument; conclusion: A new study provides ... those exposed by 20%. | |  | e. | Nonargument. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 5. All algae photosynthesize their own food, as plants do. Algae are also widely distributed in bodies of fresh water and in oceans. Because they are so numerous and because they capture energy from sunlight in the food they make, algae are an important source of food for other organisms.  Jacquelyn C. Black, *Microbiology: Principles and Explorations*   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: They capture energy from sunlight in the food they make | |  | b. | Nonargument. | |  | c. | Argument; conclusion: All algae photosynthesize their own food, as plants do. | |  | d. | Argument; conclusion: They are so numerous | |  | e. | Argument; conclusion: Algae are an important source of food for other organisms. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 6. A distinction is often made between management accounting and financial accounting. Management accounting focuses on internal reporting. It measures and reports financial and nonfinancial information that helps managers make decisions to fulfill the goals of an organization. Financial accounting focuses on reporting to external parties. It measures and records business transactions and provides financial statements issued to investors, government regulators, and other interested parties.  Charles T. Horngren, *Cost Accounting, A Managerial Emphasis*, 13th ed.   |  |  |  | | --- | --- | --- | |  | a. | Nonargument. | |  | b. | Argument; conclusion: Management accounting focuses on internal reporting. | |  | c. | Argument; conclusion: A distinction is often made ... financial accounting. | |  | d. | Argument; conclusion: It measures and records business transactions ... parties. | |  | e. | Argument; conclusion: Financial accounting focuses on ... external parties. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 7. Governments do many things. They wage war or encourage peace, and they cultivate or restrict international trade. They open their borders to the exchange of ideas or they close them. They tax their populations heavily or lightly, and through different means, allocate resources for education, health and welfare, or leave such matters to others.  Gabriel A. Almond, *et al*., *Comparative Politics Today*, 7th ed.   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: They wage war ... international trade. | |  | b. | Argument; conclusion: They tax ... leave such matters to others. | |  | c. | Nonargument. | |  | d. | Argument; conclusion: They open their borders ... or they close them. | |  | e. | Argument; conclusion: Governments do many things. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 8. The observational method is extremely useful in helping us describe social behavior. The correlational method is extremely useful in helping us understand what aspects of social behaviors are related. However, only a properly executed experiment allows us to draw conclusions about cause and effect. For this reason, the experimental method is the most commonly used research design in social psychology.  Elliot Aronson, *et al*., *Social Psychology*   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Only a properly executed ... cause and effect. | |  | b. | Argument; conclusion: The experimental method ... in social psychology. | |  | c. | Argument; conclusion: The observational method ... social behavior. | |  | d. | Argument; conclusion: The correlational method ... are related. | |  | e. | Nonargument. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 9. Large groups of prospective jurors are dispatched to courtrooms where they sit around for three to four days. Then attorneys and judges, in between other extensive court business, query each prospective juror over and over again with the same time-consuming questions to see if the juror should be excused, picked, or challenged. The process is maddening to watch and listen to. More often than not, after being required to report to the courtroom for three to four days the prospective jurors, in droves, are dismissed.  Alan V. Weinberg, Letter to the Editor   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: More often than not ... are dismissed. | |  | b. | Argument; conclusion: The process is maddening to watch and listen to. | |  | c. | Argument; conclusion: Attorneys and judges ... or challenged. | |  | d. | Nonargument. | |  | e. | Argument; conclusion: Large groups of prospective jurors ... four days. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 10. If banks are prevented from engaging in risky practices, predatory lending is criminalized, trading in derivatives is made transparent and backed up by capital, and Wall Street lobbyists are held in check, then accountability and responsibility will be restored to the financial system, "too big to fail" will become a thing of the past, and a repeat of the Great Recession will be avoided.   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Accountability and responsibility ... financial system. | |  | b. | Nonargument. | |  | c. | Argument; conclusion: Banks are prevented from engaging in risky practices. | |  | d. | Argument; conclusion: Wall Street lobbyists are held in check. | |  | e. | Argument; conclusion: A repeat of the Great Recession will be avoided. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 11. The number of protons in an atom's nucleus determines its atomic number and the name of the element. For example, all atoms with six protons are carbon atoms, and all those with eight protons are oxygen atoms. Free atoms (those not combined with other atoms) have the same number of electrons as protons. Therefore, carbon has six electrons to match its six protons, and oxygen has eight electrons to match its eight protons.  Frederick K. Lutgens, *et al.*, *Foundations of Earth Science*, 6th ed.   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: The number of protons ... the name of the element. | |  | b. | Argument; conclusion: Free atoms ... same number of electrons as protons. | |  | c. | Nonargument. | |  | d. | Argument; conclusion: For example, all atoms with six protons ... oxygen atoms. | |  | e. | Argument; conclusion: Carbon has six electrons ... to match its eight protons. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 12. Microbiologists work in a variety of settings. Some work in universities where they are likely to teach, do research, and train students to do research. Others work in industrial laboratories to develop or manufacture antibiotics, vaccines, or similar biological products. Even some law firms are hiring microbiologists to help with the complexities of patenting new genetically engineered organisms.  Jacquelyn C. Black, *Microbiology: Principles and Explorations*   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Others work in industrial laboratories ... products. | |  | b. | Argument; conclusion: Microbiologists work in a variety of settings. | |  | c. | Nonargument. | |  | d. | Argument; conclusion: Even some law firms ... engineered organisms. | |  | e. | Argument; conclusion: Some work in universities ... research. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 13. The earliest models of the solar system employed what Aristotle, and Plato before him, had taught was the perfect form: the circle. The simplest possible arrangement—uniform motion around a circle having Earth as its center—provided a fairly good approximation to the orbits of the Sun and the Moon. But it could not account for the observed variations in planetary brightness or their retrograde motion. Thus, a more complex model was needed to describe the motion of the planets.  Eric Chaison and Steve McMillan, *Astronomy Today*, 3rd ed.   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: A more complex model ... motion of the planets. | |  | b. | Argument; conclusion: But it could not account ... their retrograde motion. | |  | c. | Nonargument. | |  | d. | Argument; conclusion: The simplest possible arrangement ... Sun and Moon. | |  | e. | Argument; conclusion: The earliest models of the solar system ... the circle. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 14. Attempts to use solar energy on a large scale could have profound results. For example, it could change the albedo of the earth. This is the percentage of sunlight that is reflected back into space. Such an occurrence could cause a substantial change in the temperature of the earth, just as any other energy conversion does, making the planet too hot for life.  Robert S. Boikess and Edward Edelson, *Chemical Principles*   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: This is the percentage of sunlight ... back into space. | |  | b. | Argument; conclusion: Such an occurrence could cause ... too hot for life. | |  | c. | Nonargument. | |  | d. | Argument; conclusion: It could change the albedo of the earth. | |  | e. | Argument; conclusion: Attempts to use solar energy ... profound results. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 15. The right to healthcare has become a consumer issue. Historically, the poor either had to be satisfied with a decreased quality of care or to do without healthcare entirely. Today many citizens view equal access to healthcare as everyone's right. An ongoing debate centers on who should pay for this care.  Ruth F. Craven and Constance J. Hirnle, *Fundamentals of Nursing*   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Historically, the poor ... do without healthcare entirely. | |  | b. | Nonargument. | |  | c. | Argument; conclusion: Today many citizens ... everyone's right. | |  | d. | Argument; conclusion: An ongoing debate centers on who should pay for this care. | |  | e. | Argument; conclusion: The right to healthcare has become a consumer issue. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 16. We are immersed in life. We breathe it in, we walk on it, we touch it. Each footstep on a fertile lawn or forest mat will send tremors to trillions of bacteria, millions of algae, fungi, and protozoa, and hundreds of insects and worms. The skin on our bodies, when viewed microscopically, is a teeming matrix of tiny caverns filled with bacteria, viruses, and mites. So dense are the unseen life forms on our bodies that they form an almost complete shell about each of us.  Gary S. Moore, *Living with the Earth*, 3rd ed.   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Each footstep on a fertile lawn ... of insects and worms. | |  | b. | Nonargument. | |  | c. | Argument; conclusion: We breathe it in, we walk on it, we touch it. | |  | d. | Argument; conclusion: We are immersed in life. | |  | e. | Argument; conclusion: So dense are the unseen life forms ... about each of us. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 17. The mineral source of many manufactured items is not commonly known. For example, few people are aware that pencil lead does not contain lead metal but is really made of the soft black mineral called graphite. Talcum powder is ground-up rock made from the mineral talc. And the common mineral quartz is the main ingredient in ordinary glass and is the source of silicon for computer chips.  Frederick K. Lutgens, *et al*., *Foundations of Earth Science*, 6th ed.   |  |  |  | | --- | --- | --- | |  | a. | Nonargument. | |  | b. | Argument; conclusion: Talcum powder ... made from the mineral talc. | |  | c. | Argument; conclusion: The mineral source ... is not commonly known. | |  | d. | Argument; conclusion: And the common mineral quartz ... computer chips. | |  | e. | Argument; conclusion: For example, few people are aware ... called graphite. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| **INSTRUCTIONS:** The following problems relate to identifying and evaluating inductive and deductive arguments. Select the best answer for each. |

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| 18. The tag on this new sports coat says that the price is marked down to $49.95. Therefore, the current price must be $49.95.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, valid. | |  | b. | Inductive, strong. | |  | c. | Inductive, weak. | |  | d. | Deductive, invalid. | |  | e. | Inductive, cogent. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 19. Michelle is an agnostic. Therefore, she must not have any firm belief in God.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, invalid. | |  | b. | Inductive, strong. | |  | c. | Inductive, weak. | |  | d. | Deductive, valid. | |  | e. | Deductive, sound. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 20. Professional football is the modern day equivalent of the Roman gladiatorial games. Therefore, since it was expected that gladiators would kill their opponents, no one should complain if professional football players injure or kill their opponents.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, weak. | |  | b. | Deductive, valid. | |  | c. | Deductive, invalid. | |  | d. | Deductive, cogent. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 21. It's easy for budding stars to make it big in Hollywood. Look at Dustin Hoffman. He was instantly famous after his initial role in *The Graduate*.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, sound. | |  | b. | Deductive, invalid. | |  | c. | Inductive, strong. | |  | d. | Deductive, valid. | |  | e. | Inductive, weak. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 22. Some princes are not military officers, since some reigning monarchs are not military officers and some princes are reigning monarchs.   |  |  |  | | --- | --- | --- | |  | a. | Deductive valid. | |  | b. | Inductive, weak. | |  | c. | Deductive, invalid. | |  | d. | Inductive, strong. | |  | e. | Inductive, sound. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 23. The chief of the fire department issued a report stating that residential fires are down slightly from the prior year. Thus, it must be the case that residential fires are slightly down this year.   |  |  |  | | --- | --- | --- | |  | a. | Inductive. strong. | |  | b. | Deductive, invalid. | |  | c. | Inductive, weak. | |  | d. | Deductive, sound. | |  | e. | Deductive, valid. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 24. Given a right triangle with one 30° angle. It follows that the other angle is 55°.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, cogent. | |  | b. | Deductive, valid. | |  | c. | Inductive, strong. | |  | d. | Deductive, invalid. | |  | e. | Inductive, weak |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 25. Either the Republicans will be voted out or the economy will suffer. Therefore, the economy will suffer, because the Republicans will not be voted out.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, strong. | |  | b. | Deductive, valid. | |  | c. | Deductive, invalid. | |  | d. | Inductive, weak. | |  | e. | Inductive, sound. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 26. The finger prints on the gun match those of the defendant. Therefore, the defendant must have handled the gun.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, weak. | |  | b. | Deductive, valid. | |  | c. | Deductive, invalid. | |  | d. | Deductive, uncogent. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 27. If people can talk to the dead, then the dead are still alive. People cannot talk to the dead. Therefore, the dead are not still alive.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, valid. | |  | b. | Inductive, strong. | |  | c. | Deductive, invalid. | |  | d. | Inductive, weak. | |  | e. | Deductive, sound. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 28. Judy and her friend Claire both love post impressionist painting, and Judy thought that the Gauguin exhibit at the museum was superb. Therefore, probably Claire would like that exhibit, too.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, invalid. | |  | b. | Deductive, sound. | |  | c. | Inductive, weak. | |  | d. | Deductive, valid. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 29. The billboard ad for Joe's Used Cars says that Joe has fantastic deals. Therefore, it must be the case that Joe does indeed have fantastic deals.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, invalid. | |  | b. | Inductive, unsound. | |  | c. | Deductive, valid. | |  | d. | Inductive, weak. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 30. Andrea is the sister of Henry, and Henry is the brother of Bill. Thus, Bill is the brother of Andrea.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, sound. | |  | b. | Deductive, valid. | |  | c. | Inductive, weak. | |  | d. | Deductive, invalid. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 31. The emerald is more expensive than the diamond, and the diamond is less expensive than the sapphire. Therefore, it necessarily follows that the emerald is more expensive than the sapphire.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, invalid. | |  | b. | Inductive, weak. | |  | c. | Deductive, valid. | |  | d. | Inductive, uncogent. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 32. In a random sample of 50 students, only 15 said that they regularly read a newspaper. Therefore, probably less than 50% of the student body regularly reads a newspaper.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, valid. | |  | b. | Deductive, invalid. | |  | c. | Inductive, strong. | |  | d. | Inductive, weak. | |  | e. | Inductive, uncogent. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 33. Given square *A* inscribed in circle *B*. It follows that the area of *A* is less than the area of *B*.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, weak. | |  | b. | Inductive, strong. | |  | c. | Deductive, valid. | |  | d. | Inductive, cogent. | |  | e. | Deductive, invalid. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 34. The Chairman of Big Tex Oil Company stated that oil company executives are drastically underpaid. Therefore, it must be the case that oil company executives are indeed underpaid, just as the Chairman says.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, sound. | |  | b. | Inductive, weak. | |  | c. | Inductive, strong. | |  | d. | Deductive, valid. | |  | e. | Deductive, invalid. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| **INSTRUCTIONS:** Select the correct answer for each multiple choice question. |

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| 35. Which of the following words is a premise indicator?   |  |  |  | | --- | --- | --- | |  | a. | It must be the case that. | |  | b. | Thus. | |  | c. | Consequently. | |  | d. | Hence. | |  | e. | Given that. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 36. Which of the following words is a conclusion indicator?   |  |  |  | | --- | --- | --- | |  | a. | Because. | |  | b. | For. | |  | c. | Implies that. | |  | d. | Inasmuch as. | |  | e. | For the reason that. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 37. Which of the following sentences is a statement?   |  |  |  | | --- | --- | --- | |  | a. | Shut the water off now. | |  | b. | What is the capital of Idaho? | |  | c. | Watch out! | |  | d. | I suggest you study for your next test. | |  | e. | My car is painted green. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 38. Which of the following is a deductive argument?   |  |  |  | | --- | --- | --- | |  | a. | An argument from definition. | |  | b. | An argument from analogy. | |  | c. | A prediction. | |  | d. | A conditional statement. | |  | e. | An illustration. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 39. Which of the following is an inductive argument?   |  |  |  | | --- | --- | --- | |  | a. | A disjunctive syllogism. | |  | b. | A causal inference. | |  | c. | An argument from mathematics. | |  | d. | A hypothetical syllogism. | |  | e. | An expository passage. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 40. Which of the following is a necessary condition for becoming intoxicated?   |  |  |  | | --- | --- | --- | |  | a. | Drinking a 12-ounce can of beer in an hour. | |  | b. | Consuming alcohol. | |  | c. | Having a corkscrew. | |  | d. | Having a glass. | |  | e. | Drinking a pint of whiskey in an hour. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 41. Which of the following is a sufficient condition for being a fish?   |  |  |  | | --- | --- | --- | |  | a. | Being able to swim. | |  | b. | Having a tail. | |  | c. | Having a bony skeleton. | |  | d. | Being a halibut. | |  | e. | Laying eggs. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 42. If a deductive argument has a false premise and a false conclusion, then we know:   |  |  |  | | --- | --- | --- | |  | a. | It is invalid. | |  | b. | It is valid. | |  | c. | Nothing, as such about its validity. | |  | d. | It is sound. | |  | e. | It is weak. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 43. If an inductive argument has all true premises and a probably false conclusion, then we know:   |  |  |  | | --- | --- | --- | |  | a. | It is weak. | |  | b. | It is cogent. | |  | c. | It is strong. | |  | d. | It is valid. | |  | e. | It is invalid. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 44. The person usually credited with having originated logic is:   |  |  |  | | --- | --- | --- | |  | a. | De Morgan. | |  | b. | Plato. | |  | c. | Leibniz. | |  | d. | Aristotle. | |  | e. | Boole. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| **INSTRUCTIONS:** The following problems relate to the counterexample method. |

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| 45. **PART A** All real libraries are buildings containing books, so some presidential libraries are not real libraries, since some buildings containing books are not presidential libraries.  The form of this argument is:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | a. | Some P are not R. | b. | Some P are not R. | c. | Some B are not P. | |  | Some B are not P. |  | All R are B. |  | Some P are not R. | |  | All R are B. |  | Some B are not P. |  | All R are B. | |  |  |  |  |  |  | | d. | All R are B. | e. | All R are B. |  |  | |  | Some P are not R. |  | Some B are not P. |  |  | |  | Some B are not P. |  | Some P are not R. |  |  |   **PART B** Which of the following substitutions proves the argument invalid?   |  |  | | --- | --- | | a. | R = mammals, B = animals, P = cats. | | b. | B = mammals, P = cats, R = dogs. | | c. | P = animals, R = cats, B =mammals. | | d. | R = fish, B = animals, P = dogs. | | e. | B = fish, R = animals, P = cats. |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *ANSWER:* | |  |  | | --- | --- | | Part A: | e | | Part B: | a | | |

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| 46. **PART A** If allergies are caused by viruses, then a vaccine can be developed. Thus, a vaccine cannot be developed, because allergies are not caused by viruses.  The form of this argument is:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | a. | All A are V. | b. | If A then V. | c. | Not V | |  | No A are D. |  | Not V |  | Not A | |  | No V are D. |  | Not A |  | If A then V. | |  |  |  |  |  |  | | d. | If A then V. | e. | If A are C then V can D. |  |  | |  | Not A |  | A are not C. |  |  | |  | Not V |  | V cannot D. |  |  |   **PART B** Which of the following substitutions proves the argument invalid?   |  |  | | --- | --- | | a. | A = cats, C = animals, V = dogs, D = climb trees. | | b. | A = Napoleon was killed in a plane crash. V = Napoleon is dead. | | c. | A = Robert was assassinated, V = Robert is dead. | | d. | A = cats, V = animals, D = mammals. | | e. | A = Shakespeare suffered a heart attack, V = Shakespeare is dead. |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *ANSWER:* | |  |  | | --- | --- | | Part A: | d | | Part B: | b | | |

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| 47. **PART A** If the economy crashes, then stock prices fall, because if stock prices fall, then pension funds shrink, and if the economy crashes then pension funds shrink.  The form of this argument is:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | a. | If E then S. | b. | If E then S. | c. | If S then P. | |  | If E then P. |  | If S then P. |  | If E then P. | |  | If S then P. |  | If E then P. |  | If E then S. | |  |  |  |  |  |  | | d. | All S are P. | e. | If S then P. |  |  | |  | All E are P. |  | If E then S. |  |  | |  | All E are S. |  | If E then P. |  |  |   **PART B** Which of the following substitutions proves the argument invalid?   |  |  | | --- | --- | | a. | S = Jessica Biel is a man, P = Jessica Biel is a human, E = Jessica Biel is a woman. | | b. | S = cats, P = animals, E = dogs. | | c. | S = Jessica Biel is a woman, P = Jessica Biel is a human, E = Jessica Biel is an actress. | | d. | S = Matt Damon is an actor, P = Matt Damon is a lawyer, E = Matt Damon is a professional. | | e. | S = Susan is rich, P = Susan is famous, E = Susan is happy. |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *ANSWER:* | |  |  | | --- | --- | | Part A: | c | | Part B: | a | | |