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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. When our nation begins to use torture as a means to an end, we chip away at the values we profess to defend. Little by little and step by step, we coarsen our society. We cheapen ourselves until we become no different than those who commit acts of terror. At that point, what shall we make of ourselves?  Joseph Neri, Letter to the Editor   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Little by little and step by step, we coarsen our society. | |  | b. | Argument; conclusion: At that point, what shall we make of ourselves? | |  | c. | Argument; conclusion: When our nation ... we profess to defend. | |  | d. | Argument; conclusion: We cheapen ourselves ... acts of terror. | |  | e. | Nonargument. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 2. Assume that the universe is 14 billion years old. If we look at a galaxy that is 12 billion light years away, we see it as it was 12 billion years ago, when the universe was only 2 billion years old. Thus, simply by looking to great distances, we can see what parts of the universe looked like when the universe was younger. The key limitation to this ability is the power of our telescopes.  Jeffrey Bennett, *et al*., *The Cosmic Perspective*, 3rd edition   |  |  |  | | --- | --- | --- | |  | a. | Nonargument. | |  | b. | Argument; conclusion: The key limitation ... power of our telescopes. | |  | c. | Argument; conclusion: Simply by looking ... universe was younger. | |  | d. | Argument; conclusion: Assume that the universe is 14 billion years old. | |  | e. | Argument; conclusion: If we look at a galaxy ... 2 billion years old. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 3. If Supreme Court Justice Ruth Bader Ginsburg is correct in her assessment that "people who are well represented at trial do not get the death penalty," then the disparate skills of defense attorneys in capital cases throughout America guarantees that defendants who are legally innocent will continue to be executed and that manifest justice dictates that the death penalty be abolished.   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Manifest justice dictates ... be abolished. | |  | b. | Nonargument. | |  | c. | Argument; conclusion: Supreme Court Justice ... do not get the death penalty." | |  | d. | Argument; conclusion: The disparate skills ... be abolished. | |  | e. | Argument; conclusion: The disparate skills ... continue to be executed. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 4. Liquids and gasses have the property of being fluid—that is, they flow—because their atoms, ions, or molecules are not so strongly attracted to each other as they are in solids. Not being confined to specific locations, the particles in a liquid can move past one another.  Melvin D. Joesten and James L Wood, *World of Chemistry*, 2nd edition   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Not being confined ... move past one another. | |  | b. | Argument; conclusion: Their atoms, ions, or molecules ... as they are in solids. | |  | c. | Argument; conclusion: Liquids and gasses ... they flow. | |  | d. | Nonargument. | |  | e. | Argument; conclusion: Liquids and gasses have the property of being fluid. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 5. Tattooing and body piercing pose serious health risks to those receiving them. The primary concern is infection with blood-born pathogens like H.I.V. and hepatitis. Bacteria that live on the skin are easily spread by unsterilized instruments or ungloved hands. And tongue and genital piercing can also provide channels for bacteria and viruses to enter the bloodstream after the piercing procedure.  Lorraine Kreahling, "The Perils of Needles to the Body"   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Tattooing and body piercing ... to those receiving them. | |  | b. | Argument; conclusion: And tongue and genital piercing ... piercing procedure. | |  | c. | Argument; conclusion: The primary concern ... like H.I.V. and hepatitis. | |  | d. | Argument; conclusion: Bacteria that live on the skin ... ungloved hands. | |  | e. | Nonargument. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 6. There are numerous ways to study nonhuman animals. One method is to observe a group and describe (either by taking notes or speaking into a tape recorder) as completely as possible everything that occurs. Another technique is to "follow" one "focal" animal, describing everything it does. Still another frequently used method involves making observations of a focal animal at precise intervals.  Robert Jurmain, *et al*., *Essentials of Physical Anthropology*, 5th edition   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: One method is to observe ... everything that occurs. | |  | b. | Argument; conclusion: Another technique ... describing everything it does. | |  | c. | Nonargument. | |  | d. | Argument; conclusion: Still another frequently used method ... precise intervals. | |  | e. | Argument; conclusion: There are numerous ways to study nonhuman animals. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 7. Your sofa may be poisoning you. Its foam padding probably contains flame retardant chemicals called polybrominated diphenyl ethers. These chemicals have been linked to memory loss and brain damage. Also they may cause cancer and damage the liver.   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Also they may cause cancer and damage the liver. | |  | b. | Nonargument. | |  | c. | Argument; conclusion: These chemicals ... brain damage. | |  | d. | Argument; conclusion: Its foam padding ... polybrominated diphenyl ethers. | |  | e. | Argument; conclusion: Your sofa may be poisoning you. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 8. We can't bomb our way out of nuclear proliferation. But in a world in which nuclear weapons are the badge of real nations, no self-respecting superpower is going to disarm unilaterally, and every nonnuclear state will want a seat at the table. The only way to escape this deadly cycle is for the nuclear powers to step up and lead negotiations for an international agreement abolishing nuclear weapons.  Chris Cooper, Letter to the Editor   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: We can't bomb our way out of nuclear proliferation. | |  | b. | Argument; conclusion: The only way to escape ... abolishing nuclear weapons. | |  | c. | Argument; conclusion: But in a world ... disarm unilaterally. | |  | d. | Nonargument. | |  | e. | Argument; conclusion: Every nonnuclear state will want a seat at the table. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 9. There are two types of pension plan. In a defined contribution plan, a company contributes a specific amount of money, often based on profits, to a fund owned by its employees. In a defined benefit plan, the company promises to make specific lifetime payments to its employees when they retire. The payments depend on each employee's pay at retirement, years of service, and expected lifespan.  Eugene F. Brigham, *Financial Management: Theory and Practice*   |  |  |  | | --- | --- | --- | |  | a. | Nonargument. | |  | b. | Argument; conclusion: In a defined benefit plan ... when they retire. | |  | c. | Argument; conclusion: In a defined contribution plan ... owned by its employees. | |  | d. | Argument; conclusion: The payments depend ... expected lifespan. | |  | e. | Argument; conclusion: There are two types of pension plan. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 10. Earthquakes occur because the surface of the earth is composed of giant rigid plates, and these plates are constantly moving. When one plate rubs against another, the motion of the plates in that area is halted, and strain builds up. Eventually the edge of the plate cannot withstand the increasing strain, and it breaks. The resulting shudder is felt as an earthquake.   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: The resulting shudder is felt as an earthquake. | |  | b. | Argument; conclusion: Earthquakes occur. | |  | c. | Argument; conclusion: When one plate rubs ... strain builds up. | |  | d. | Nonargument. | |  | e. | Argument; conclusion: Eventually the edge of the plate ... it breaks. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 11. Because the properties of life emerge from complex organization, scientists seeking to understand biological processes confront a dilemma. One horn of the dilemma is that we cannot fully explain a higher level of order without breaking it down into its parts, but this inevitably kills it. The other horn is the futility of trying to analyze something as complex as an organism or a cell without taking it apart.  Neil A. Campbell and Jane B. Reece, *Biology*, 6th edition   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: The other horn is ... without taking it apart. | |  | b. | Argument; conclusion: The properties of life emerge from complex organization. | |  | c. | Nonargument. | |  | d. | Argument; conclusion: One horn of the dilemma ... inevitably kills it. | |  | e. | Argument; conclusion: Scientists seeking to understand ... confront a dilemma. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 12. All businesses are involved in three types of activity—financing, investing, and operating. For example, the founder of Tootsie Roll needed financing to start and grow his business. This may have come from either personal savings or outside sources. The cash obtained was then invested in the equipment necessary to run the business, such as mixing equipment and delivery vehicles. Once this equipment was in place, the founder could begin the operating activities of making and selling candy.  Paul D. Kimmel, *et al*., *Financial Accounting*, 3rd edition   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: The cash obtained ... delivery vehicles. | |  | b. | Argument; conclusion: Once this equipment was in place ... selling candy. | |  | c. | Argument; conclusion: The founder of Tootsie Roll ... grow his business. | |  | d. | Argument; conclusion: All businesses are involved ... and operating. | |  | e. | Nonargument. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 13. Finance as we know it today grew out of and lies between economics and accounting. Economists developed the notion that an asset's value is based on the future cash flow the asset will provide. Accountants provided the information about the likely size of those cash flows. So, people who work in finance require knowledge of both economics and accounting.  Eugene F. Brightman *et al*., *Fundamentals of Financial Management.*   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Economists developed the notion ... asset will provide. | |  | b. | Argument; conclusion: People who work in finance ... accounting. | |  | c. | Argument; conclusion: Accountants provided the information ... cash flows. | |  | d. | Nonargument. | |  | e. | Argument; conclusion: Finance as we know it today ... accounting. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 14. Marx saw all societies as composed of two basic parts: the foundation and the superstructure. The foundation of any society, according to this theory, is material. It consists of the economic system. The superstructure is composed of all nonmaterial institutions in the society, and each is arranged in a way that suits the ruling class. Included in the superstructure are values, ideology, government, education, law, religion, and art.  Leon P. Baradat, *Political Ideologies*   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Included in the superstructure ... religion, and art. | |  | b. | Argument; conclusion: The superstructure is composed ... suits the ruling class. | |  | c. | Nonargument. | |  | d. | Argument; conclusion: Marx saw all societies ... and the superstructure. | |  | e. | Argument; conclusion: The foundation of any society ... is material. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 15. People everywhere recognize a category of people who are related to them biologically or through adoption—their relatives, we call them. But the principles by which certain kinds of relatives are placed in cultural categories vary between kinship systems. Thus, English speakers think of the sisters of both our mother and our father as a single kind of relative, and we call them by the same kinship term, *aunt*. But there are some cultural traditions in which the sister of one's mother is considered one kind of relative and the sister of one's father a different kind, and each is called by a separate kinship term.  Garrick Bailey and James Peoples, *Essentials of Cultural Anthropology*   |  |  |  | | --- | --- | --- | |  | a. | Nonargument. | |  | b. | Argument; conclusion: But the principles ... vary between kinship systems. | |  | c. | Argument; conclusion: English speakers think ... the same kinship term, *aunt*. | |  | d. | Argument; conclusion: But there are some cultural ... separate kinship term. | |  | e. | Argument; conclusion: People everywhere recognize ... we call them. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 16. In some ways biology is the most demanding of all sciences. This is partly because living systems are so complex and partly because biology is a multidisciplinary science that requires a knowledge of chemistry, physics, and mathematics. And of all the sciences, biology is the most connected to the humanities and social sciences.  Neil A. Campbell and Jane B. Reece, *Biology*, 6th edition   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: Living systems are so complex. | |  | b. | Argument; conclusion: Biology is a multidisciplinary science ... mathematics. | |  | c. | Nonargument. | |  | d. | Argument; conclusion: In some ways biology ... of all sciences. | |  | e. | Argument; conclusion: Of all the sciences ... humanities and social sciences. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 17. ​Earlier attempts to build offshore windfarms ran into roadblocks. They included high costs and murky rules about the use of the sea floor. People who did not want their ocean views marked by machinery opposed them. But offshore wind may now be on the verge of rapid growth. Such a step will be vital for a future based on renewable energy.  Newspaper clipping.   |  |  |  | | --- | --- | --- | |  | a. | Argument; conclusion: People who did not want … opposed them. | |  | b. | Argument; conclusion: Such a step … renewable energy. | |  | c. | Argument; conclusion: Earlier attempts … roadblocks. | |  | d. | Argument; conclusion: But offshore wind … rapid growth. | |  | e. | Nonargument. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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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. Adrian's car has a flat tire. Someone must have slashed it with a knife.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, valid. | |  | b. | Deductive, unsound. | |  | c. | Inductive, strong. | |  | d. | Deductive, invalid. | |  | e. | Inductive, weak. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 19. Every dancer on the floor has a partner. Hence, there are an even number of dancers on the floor.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, invalid. | |  | b. | Inductive, weak. | |  | c. | Deductive, valid. | |  | d. | Deductive, sound. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 20. The print at the bottom of this full box of Cheerios says NET WT 15 OZ. Therefore, the contents must weigh about 15 ounces.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, weak. | |  | b. | Inductive, uncogent. | |  | c. | Deductive, valid. | |  | d. | Inductive, strong. | |  | e. | Deductive, invalid. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 21. No theocracies are true democracies. No secular governments are theocracies. Thus, some secular governments are true democracies.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, strong. | |  | b. | Deductive, invalid. | |  | c. | Inductive, weak. | |  | d. | Deductive, cogent. | |  | e. | Deductive, valid. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 22. Either Haley Anderson or Simone Manuel won an Olympic gold medal in 2016. Haley Anderson did not win one in 2016. Thus, Simone Manuel did.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, strong. | |  | b. | Deductive, invalid. | |  | c. | Deductive, valid. | |  | d. | Inductive, cogent. | |  | e. | Inductive, weak. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 23. Graffiti written on the side of this wall says "Crips Rule." Thus, the mayor and city council must be members of the Crips.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, weak. | |  | b. | Deductive, valid. | |  | c. | Deductive, invalid. | |  | d. | Inductive, cogent. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 24. Amanda is taller than Jacqueline, and Jacqueline is shorter than Laura. Hence, it necessarily follows that Amanda is taller than Laura.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, weak. | |  | b. | Deductive, invalid. | |  | c. | Inductive, strong. | |  | d. | Deductive, valid. | |  | e. | Deductive, sound. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 25. Sixty percent of the members of the Theta Society drive American cars. Hence, since Kristy is a member of the Theta Society, it is likely that she drives an American car.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, valid. | |  | b. | Deductive, invalid. | |  | c. | Inductive, cogent. | |  | d. | Inductive, weak. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 26. Frank is a polygamist. Therefore, he has more than one wife.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, invalid. | |  | b. | Inductive, strong. | |  | c. | Inductive, weak. | |  | d. | Deductive, valid. | |  | e. | Deductive, unsound. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 27. Silvia is a middle-aged, dark haired Protestant woman who supports right-to-life issues. Shelly is also a middle-aged, dark haired Protestant woman. Therefore, she probably also supports right-to-life issues.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, weak. | |  | b. | Deductive, valid. | |  | c. | Inductive, strong. | |  | d. | Inductive, cogent. | |  | e. | Deductive, invalid. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 28. Cancer is a disease that has afflicted humans for thousands of years. Therefore, many of the ancient Romans must have died of cancer.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, valid. | |  | b. | Deductive, invalid. | |  | c. | Inductive, strong. | |  | d. | Inductive, sound. | |  | e. | Inductive, weak. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 29. Given that 3*x* + 2 = 14. It follows that *x* = 5.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, sound. | |  | b. | Deductive, invalid. | |  | c. | Deductive, valid. | |  | d. | Inductive, weak. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 30. Jennifer's cat Pinky is constantly scratching itself. Apparently Pinky has fleas.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, cogent. | |  | b. | Inductive, weak. | |  | c. | Deductive, invalid. | |  | d. | Deductive, valid. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 31. If the Zika virus is harmless, then it will not be eradicated.  The Zika virus is not harmless.  Therefore, it will be eradicated.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, uncogent. | |  | b. | Deductive, invalid. | |  | c. | Inductive, strong. | |  | d. | Deductive, valid. | |  | e. | Inductive, weak. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 32. Right wing columnist and author Michelle Malkin says that the forced relocation of Japanese Americans to internment camps during World war II was really for their own protection. Therefore, we must drop that silly nonsense that this internment was a monstrous injustice, and start thinking of it as a humanitarian endeavor.   |  |  |  | | --- | --- | --- | |  | a. | Deductive, invalid. | |  | b. | Inductive, strong. | |  | c. | Deductive, valid. | |  | d. | Inductive, weak. | |  | e. | Deductive, unsound. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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

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| 34. Trees bearing apples, pears, and apricots all thrive in Washington state. It must be the case that all fruit trees thrive in Washington state.   |  |  |  | | --- | --- | --- | |  | a. | Inductive, weak. | |  | b. | Deductive, sound. | |  | c. | Deductive, invalid. | |  | d. | Deductive, valid. | |  | e. | Inductive, strong. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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

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| 35. Which of the following are all nonarguments?   |  |  |  | | --- | --- | --- | |  | a. | Expository passages, generalizations, conditional statements. | |  | b. | Warnings, statements of belief, explanations. | |  | c. | Opinions, illustrations, syllogisms. | |  | d. | Predictions, pieces of advice, reports. | |  | e. | Analogies, causal inferences, propositions. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 36. Which of the following are all inductive arguments?   |  |  |  | | --- | --- | --- | |  | a. | Predictions, arguments based on signs, arguments from authority. | |  | b. | Arguments based on mathematics, arguments from definition, syllogisms. | |  | c. | Arguments from definition, causal inferences, arguments based on signs. | |  | d. | Arguments from authority, hypothetical syllogisms, arguments from analogy. | |  | e. | Disjunctive syllogisms, arguments from authority, generalizations. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 37. Which of the following are all conclusion indicators?   |  |  |  | | --- | --- | --- | |  | a. | Consequently, thus, for the reason that. | |  | b. | It follows that, given that, inasmuch as. | |  | c. | Entails that, as, accordingly. | |  | d. | Hence, for this reason, consequently. | |  | e. | Implies that, as indicated by, seeing that. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 38. In the expression "The twin towers of the World Trade Center no longer exist because they were destroyed by terrorists," the statement "They were destroyed by terrorists" is called the:   |  |  |  | | --- | --- | --- | |  | a. | Premise. | |  | b. | Consequent. | |  | c. | Explanans. | |  | d. | Conclusion. | |  | e. | Explanandum. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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| 39. In the expression "If religion dictates what counts as science, then the future of education is doomed," the statement "The future of education is doomed" is called the:   |  |  |  | | --- | --- | --- | |  | a. | Consequent. | |  | b. | Conditional. | |  | c. | Antecedent. | |  | d. | Explanandum. | |  | e. | Conclusion. |  |  |  | | --- | --- | | *ANSWER:* | a | |

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| 40. An argument whose conclusion rests on a similarity between two things is:   |  |  |  | | --- | --- | --- | |  | a. | A cogent argument. | |  | b. | A deductive argument. | |  | c. | A categorical syllogism. | |  | d. | A strong argument. | |  | e. | An argument from analogy. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 41. An argument that proceeds from our knowledge of an effect to a claim about the cause is:   |  |  |  | | --- | --- | --- | |  | a. | A categorical syllogism. | |  | b. | An inductive argument. | |  | c. | An argument from signs. | |  | d. | A weak argument. | |  | e. | A cogent argument. |  |  |  | | --- | --- | | *ANSWER:* | b | |

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| 42. If an inductive argument has all true premises and a probably true conclusion, then we know:   |  |  |  | | --- | --- | --- | |  | a. | The argument is valid. | |  | b. | The argument is strong. | |  | c. | The argument is cogent. | |  | d. | Nothing, as such, about the argument's strength. | |  | e. | The argument is sound. |  |  |  | | --- | --- | | *ANSWER:* | d | |

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| 43. Which of the following is a necessary condition for being a cat?   |  |  |  | | --- | --- | --- | |  | a. | Having black fur. | |  | b. | Weighing at least 8 pounds. | |  | c. | Clawing the furniture. | |  | d. | Being a calico. | |  | e. | Being an animal. |  |  |  | | --- | --- | | *ANSWER:* | e | |

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| 44. Which of the following sentences is a statement?   |  |  |  | | --- | --- | --- | |  | a. | We recommend that you invest your money in low risk stock. | |  | b. | Why don't we take the afternoon off and go to the beach. | |  | c. | The capital of Nevada is Sacramento. | |  | d. | Do you know where the post office is? | |  | e. | Come inside right this minute and eat your dinner. |  |  |  | | --- | --- | | *ANSWER:* | c | |

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

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| 45. **PART A** All exercise sessions are healthy activities, so some jogging events are healthy activities, since some exercise sessions are not jogging events.  Which of the following correctly expresses the form of this argument?   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | a. | Some E are not J. | b. | All E are H. | c. | All E are H. | |  | Some J are H. |  | Some E are not J. |  | Some J are H. | |  | All E are H. |  | Some J are H. |  | Some E are not J. | |  |  |  |  |  |  | | d. | E are H. | e. | Some J are H. |  |  | |  | E are not J. |  | Some E are J. |  |  | |  | J are H. |  | All E are H. |  |  |   **PART B** Which of the following substitutions proves the argument invalid?   |  |  | | --- | --- | | a. | E = dogs, H = mammals, J = fish. | | b. | E = mammals, H = animals, J = cats. | | c. | E = fish, H = animals, J = dogs. | | d. | E = cats, H = mammals, J = animals. | | e. | E = animals, H = dogs, J = mammals |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *ANSWER:* | |  |  | | --- | --- | | Part A: | b | | Part B: | a | | |

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| 46. **PART A** If class-action lawsuits are banned, then big business will win. Hence, big business will not win, since class-action lawsuits will not be banned.  Which of the following correctly expresses the form of this argument?   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | a. | If C then B. | b. | Not C. | c. | If C then B. | |  | Not B. |  | Not B. |  | Not C. | |  | Not C. |  | If C then B. |  | Not B. | |  |  |  |  |  |  | | d. | If C then B. | e. | If C then B. |  |  | |  | B. |  | C. |  |  | |  | C. |  | B. |  |  |   **PART B** Which of the following substitutions proves the argument invalid?   |  |  | | --- | --- | | a. | C = Nicole Kidman was beheaded, B = Nicole Kidman is dead. | | b. | C = Bob Smith was beheaded, B = Bob Smith is dead. | | c. | C = Abraham Lincoln was assassinated, B = Abraham Lincoln is dead. | | d. | C = George Washington is dead, B = George Washington was assassinated. | | e. | C = George Washington was beheaded, B = George Washington is dead. |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *ANSWER:* | |  |  | | --- | --- | | Part A: | c | | Part B: | e | | |

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| 47. **PART A** Some entertainers are not magicians, for some comedians are not magicians and some magicians that are not comedians are entertainers.  Which of the following correctly expresses the form of this argument?   |  |  |  |  | | --- | --- | --- | --- | | a. | Some C are not M. | b. | Some M that are not C are E. | |  | Some M are E. |  | Some E are not M. | |  | Some E are not M. |  | Some C are not M. | |  |  |  |  | | c. | Some C are not M. | d. | Some E are not M. | |  | Some M that are not C are E. |  | Some C are not M. | |  | Some E are not M. |  | Some M that are not C are E. | |  |  |  |  | | e. | Some E are not M. |  |  | |  | Some C are not M. |  |  | |  | All M that are not C are E. |  |  |   **PART B** Which of the following substitutions proves the argument invalid?   |  |  | | --- | --- | | a. | M = mammals, C = animals, E = dogs. | | b. | M = cats, C = trees, E = animals. | | c. | M = mammals, C = cats, E = animals. | | d. | M = animals, C = trees, E = cats. | | e. | M = fish, C = dogs, E = mammals. |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | *ANSWER:* | |  |  | | --- | --- | | Part A: | c | | Part B: | d | | |