Question 1
4 / 4 pts
What are the three fundamental reasoning strategies listed in the text?
Your Answer:
Comparative reasoning

Ideological reasoning

Empirical reasoning

Question 2
6 / 6 pts
What is comparative reasoning? On what skill is it based?
Your Answer:
Comparative reasoning is a form of thinking where you basically compare two things (this is like that). This form of reasoning enables human to interpret thing, draw inferences, or offer explanations. Comparative reasoning is based on critical thinking skills. You compare your knowledge of what you know to what you don't know.

Question 3
20 / 20 pts
We learned four tests for evaluating arguments: truthfulness of the premises, logical strength, relevance, and non-circularity. How well do these tests work with respect to evaluating comparative reasoning? Consider each of the four tests.
Your Answer:
According to the textbook, the four tests for evaluating arguments are not the best when evaluating comparative reasoning. In the case of the first test, using the terms "true" or "false" do not provide enough clarity for evaluating comparisons, which are the two main terms used in the first test. In the second test of evaluating arguments, there are too many cases where points of dissimilarity and similarity are both shown. Therefore, the second test does not work well with respect to evaluating comparative reasoning. The third test is not appropriate for evaluating comparative reasoning either. Because of how the analogies are worded in comparative reasoning, it is up to the maker of the analogy to explain how the comparison is relevant. Lastly, in the case of the fourth test, it does not work either. In comparative reasoning, there is something unfamiliar. If something is unfamiliar, it is hard to connect the premise and the conclusion. In the case of business and war, war is very unfamiliar to many businesspeople. Therefore, it would be difficult to apply the fourth test. In conclusion, the four test for evaluating arguments do not work with respect to evaluating comparative reasoning.

Question 4
10 / 10 pts

What are the five criteria for evaluating comparative reasoning? Name and define them in your own words.
Your Answer:
Familiarity: the amount of knowledge that the listener has about the object that is being compared to an unfamiliar object.

Simplicity: simplicity is the measure of exactly how complex the comparison is

Comprehensiveness: the degree to which a comparison has more key features

Productivity: the ability of a comparison to spark new ideas that go beyond the previous comparison

Testability: ability of a comparison to predict consequences that could possibly be false/inaccurate

Question 5
10 / 10 pts
According to the text, the basic question to ask when evaluating a comparison between two objects or ideas or events is “Are they alike enough in the important ways or not?” (p. 248). What are those “important ways” that determine the credibility of conclusions based on similarities?
Your Answer:
The more persuasive the key similarities are, the more relevant the comparison is. Therefore, the conclusion will be more credible based on those similarities.

Question 6
2 / 2 pts
In your own words, define empirical reasoning.
Your Answer:
Empirical reasoning is a process of thinking based on premises describing inter personally experiences to support or disprove a hypothesis. This form of reasoning is inductive, self-corrective, and open to careful examination.

Question 7
2 / 2 pts
What are the three defining characteristics of empirical reasoning?
Your Answer:
Empirical reasoning is inductive

Empirical reasoning is self-corrective

Empirical reasoning is open to independent verification

Question 8
2 / 2 pts
What is meant by “the null hypothesis”?
Your Answer:
The null hypothesis refers to an empirically tested hypothesis that two events are only related by random chance, no other relations.

Question 9
2 / 2 pts
What is the purpose of empirical reasoning?
Your Answer:
The main purpose of empirical reasoning is to explain, predict, or control certain events that occur in our lives.

Question 10
2 / 2 pts
How do we evaluate empirical reasoning?
Your Answer:
The main way to evaluate empirical reasoning is by utilizing the four tests of evaluating arguments (Test of truthfulness, logical strength, relevancy, and non-circularity). Of course, if the empirical reasoning fails any of these tests, there is also independent investigators that can come in and extend the study to evaluate it. Lastly, empirical reasoning can be evaluated through peer review.

Question 11
10 / 10 pts
What part of a research design addresses the test for logical strength, and how is it addressed?
Your Answer:
The part of research design in which the data is analyzed and the findings are discussed. This part of research design addresses the test for logical strength  by supplying ample ground for well warranted inferences with regard to the probable truth or falsity of the hypothesis. The test of logical strength tests the correlation between the premises and the conclusion, which is exactly what is going on here.

Question 12
10 / 10 pts

Briefly explain the process of peer review.  What is the process of peer review designed to do?
Your Answer:
Peer review is when someone's ideas, methods, and inferences about a topic are scrutinized by other experts in the field. These experts analyze the ideas, methods, and inferences by using certain evaluation steps. The process of peer review is designed to screen out research that does not meet one or more of the four tests of worthiness.

Question 13
10 / 10 pts
The authors of our text state: “We have 40 years of data across multiple studies that confirm the positive correlation between taking a course in critical thinking and improvements in the students’ pretest to post-test critical thinking skills scores. It would be a mistake, therefore, all things being equal, to say that growth in critical thinking and taking a course in critical thinking are unrelated” (p. 290). The null hypothesis is false. Does that mean, therefore, that taking a critical thinking course causes students to become more skilled at critical thinking and more motivated to use those skills? Explain your answer.
Your Answer:
No, we cannot say that taking a critical thinking course causes students to become more skilled at critical thinking and more motivated to use those skills. This is because of there being so many possible factors in between. It is already hard to assume "A causes B", especially if the former conclusion was "A is not related to B." There is too much room for assumptions and theories, that could easily be disproved. Because there are so many possible factors that play into the situation, it would not be safe to assume that just because there is 40 years of data confirming the positive correlation,  taking a critical thinking course causes students to become more skilled at critical thinking and more motivated to use those skills.

Question 14
10 / 10 pts
If reasoning is empirical, contains statistics, and appears in print, should we take for granted that it has passed the four tests of truthfulness of the premises, logical strength, relevance, and non-circularity?  Explain your answer.
Your Answer:
No, we should not automatically assume that just because the empirical reasoning fits certain criteria, such as containing statistics, that it passes the four tests of worthiness. This is because that even after careful peer review, errors happen. If errors occur in peer review, they are likely to still be published. Therefore, it should not be taken for granted that the reasoning passes all four tests.