

Question 1: Concept Application**7 points****General Considerations**

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6. Within a bulleted question part, if the response addresses details from a scenario other than the one in the prompt, the point is not earned.

Part A Steve is in the kitchen happily making breakfast for his four children, who are all playing together in the living room. After hearing a loud crash, Steve becomes quite upset and rushes into the living room, where he sees a lamp shattered on the floor. The children are watching television, and no one is trying to clean up the lamp.

Explain how each of the following relates to the scenario.

Soundwave amplitude**1 point**

Response must indicate that relevant to the scenario, a loud sound is associated with high soundwaves, or a soft sound is associated with low soundwaves.

Acceptable explanations include:

- *The height of the soundwaves that were created when the lamp crashed must have been very high because Steve referred to it as loud.*
- *The sound of the lamp crashing was so loud because it had a high amplitude.*
- *Steve did not hear the timer chime because it has low soundwaves, and he almost burned the eggs.*

Unacceptable explanations include:

- *The crash of the lamp had a high pitch.*

Procedural memory**1 point**

Response must indicate that Steve and/or the children remember how to physically do something in the scenario (e.g., making breakfast) without paying conscious attention (e.g., automatically, unconsciously, muscle memory, nondeclarative, well-practiced/learned) to doing so.

Acceptable explanations include:

- *The children have set the breakfast table so much that they do it automatically.*

Unacceptable explanations include:

- *Steve remembered that the breakfast was cooking, so he had to go in and keep it from burning.*
 - *The kids know they are supposed to take out the plates and then open the cupboard to find juice glasses.*
 - *Steve remembers where the couch is located in the living room so that he does not trip on it as he walks toward the broken lamp.*
-

Diffusion of responsibility**1 point**

Response must indicate that the children do not attempt to clean up the broken lamp because they assume others are likely to do it.

Acceptable explanations include:

- *The children are not cleaning up the lamp because they think someone else will do it.*
- *The younger children assume the older children will clean up the lamp.*

Unacceptable explanations include:

- *The children don't clean up the lamp because they are not responsible for their actions.*
- *The children are watching TV, so they don't clean up the lamp.*
- *The children want to wait until their show is over before they clean up the lamp.*
- *The dad thinks that all the children are responsible for cleaning up the lamp.*

Dispositional attribution**1 point**

Response must indicate that Steve and/or the children overestimated the internal factors influencing their own or someone else's behavior in the scenario.

Acceptable explanations include:

- *Steve decided that his children were clumsy and irresponsible.*
- *Steve concludes that he is a mean person for disciplining his children.*

Unacceptable explanations include:

- *Steve thought his children were probably just distracted by the TV when the lamp broke.*

Ghrelin**1 point**

Response must indicate that for someone in the scenario, ghrelin levels are high when they are hungry or low when they are not hungry.

Acceptable explanations include:

- *While the children waited for breakfast, ghrelin caused feelings of hunger.*
- *Steve was able to lower his ghrelin levels because he ate all the breakfast.*

Unacceptable explanations include:

- *The children's ghrelin levels were lower because they were hungry.*
-

Part B Instead of asking the children what happened, Steve immediately turns off the television and sends them all outside to rake the large amount of leaves in the backyard. Steve stays irritable for the rest of the day.

Explain how each of the following relates to the scenario.

Authoritarian parenting style

1 point

Response must indicate that Steve is demonstrating a parenting style that includes high control, no discussion of expectations or consequences (one-way communication), or that focuses on obedience and discipline.

Acceptable explanations include:

- *Steve's parenting style most closely fits authoritarian because he was quick to punish them for the mistake they made (breaking the lamp) by making them stop playing to rake leaves.*
- *Steve was more interested in them following rules than understanding what happened.*

Unacceptable explanations include:

- *Steve explained to the children why he punished them.*
-

Steve's high level of the Big Five trait of neuroticism

1 point

Response must indicate that an enduring characteristic of neuroticism (e.g., depression, negative feelings, anxiety) explains Steve's behavior in the scenario.

Acceptable explanations include:

- *Steve remains irritable all day and doesn't seem to recover from this minor event, indicating a lack of stability and high level of neuroticism.*
- *Steve experiences an extreme, negative emotional change throughout the scenario, showing that he is high in neuroticism.*
- *Steve gets overly upset at the sound of the lamp breaking.*

Unacceptable explanations include:

- *There is evidence that Steve is high in neuroticism because he stays irritable the rest of the day.*
 - *Steve is neurotic about his kids and their safety.*
 - *Steve is unhappy that the lamp broke.*
-

Total for question 1 7 points

Question 2: Research Design**7 points****General Considerations**

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Michael is the regional manager for a car company and needs to give a presentation to the president of the company about how different management styles might relate to the total number of sales of the company's new electric car. He hires an industrial/organizational psychologist to study three stores, each in a different city. Each store's manager has their own distinct management style:

- In Store A, the manager has a supportive style (open and warm).
- In Store B, the manager has a strict style (rigid and severe).
- In Store C, the manager, who is Michael's good friend, has a distant style (permissive and disengaged).

The number of electric cars sold at each store over a five-month period is shown in the table.

	ELECTRIC CARS SOLD BY STORE		
Month	Store A (supportive style)	Store B (strict style)	Store C (distant style)
January	9	7	3
February	7	8	2
March	9	5	5
April	5	3	4

Explain why this study is not a true experiment.**1 point**

Response must indicate that this study is not an experiment because the researcher did NOT use random assignment.

OR

Response must indicate that the study did not include the manipulation of a variable.

Acceptable explanations include:

- *The study is not a true experiment because the psychologist did not randomly assign participants to his groups.*
- *The study used stores that already existed instead of manipulating an independent variable.*
- *The independent variable was not manipulated by the researcher in this study.*

Unacceptable explanations include:

- *Michael didn't use random selection, so his study is not an experiment.*
-

Identify the implied dependent variable for the study if the study had been a true experiment.**1 point**

Response must indicate that the number of cars sold would be the dependent variable.

Acceptable explanations include:

- *The DV would be the number of cars bought by customers.*
- *The DV is cars sold.*
- *The DV is sales.*

Unacceptable explanations include:

- *The DV would be the stores.*
 - *The DV is cars.*
 - *The DV is leadership style.*
-

Calculate the mean of Store B's sales.**1 point**

Response must indicate that the mean for Store B is 5.

Acceptable explanations include:

- *The mean is five.*

Unacceptable explanations include:

Responses that indicate any other number than 5 or other representation of the number five that is not English/Arabic numerals.

- *The mean is 12.*
-

Explain why the location of the store is a confounding variable in this study.

1 point

Response must indicate that the location of the store is affecting the dependent variable in some specified way.

Acceptable explanations include:

- *Each management style was also in a different city, and people in each city may have different tastes in items and will purchase things differently.*
- *Cities with more people would most likely sell more units.*
- *Store A is in a higher-income area, so more cars are sold there.*

Unacceptable explanations include:

- *The location of the stores was confounding because some people couldn't go to all the stores.*
 - *There may not be charging stations in some parts of the city where Store B is located.*
-

Explain how the halo effect could influence Michael's interpretation of the findings.

1 point

Response must indicate that Michael's previous positive perception of Store C's manager will cause him to think more positively toward Store C's sales data than he otherwise would.

Acceptable explanations include:

- *Michael's good feeling about the manager at Store C will make him think the data for that store are wrong.*
- *Michael is good friends with the manager of Store C, so that causes him to make a positive evaluation of the store's performance.*

Unacceptable explanations include:

- *Michael views the manager positively, but the data lead him to think he may have chosen a bad manager.*
-

Explain why the hiring of an industrial/organizational psychologist was appropriate for this study.

1 point

Response must indicate that I/O psychologists are interested in optimizing or improving performance **OR** solving problems in the workplace.

Acceptable explanations include:

- *This study is about which management style leads to the most sales, so an I/O psychologist would be best to help solve this problem.*
- *Michael wants to identify ways to improve managers' performance, and an I/O psychologist can help him with this goal.*

Unacceptable explanations include:

- *I/O psychologists study the workplace.*
-

Explain how Michael could use positive reinforcement to help him finish his presentation by the deadline. 1 point

Response must indicate Michael could reward himself with something that he likes each time he works on his presentation to make it more likely that he will keep working.

Acceptable explanations include:

- *Michael treats himself to a small piece of candy after he works for 20 minutes to encourage himself to keep working.*

Unacceptable explanations include:

- *Michael is positive with himself about finishing the report on time.*
- *Michael treats himself to candy after working on his presentation.*
- *Michael eats a piece of candy and then begins to work on his presentation.*

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Part A Jordan recently moved to a new school for her senior year of high school, and she has been adjusting to her new environment.

Explain how each of the following relates to Jordan's adjustment to her new school.

Spotlight effect**1 point**

Response must indicate that Jordan overestimates how much the people at her new school are paying attention to/judging her.

Acceptable explanations include:

- *Jordan feels so awkward her first few days because she thinks everyone is staring at her.*
- *Jordan believes that other students are noticing her, even when they are not.*

Unacceptable explanations include:

- *Jordan enjoys being in the spotlight and getting everyone's attention.*
 - *Jordan worries that people are staring at her.*
-

Cognitive map**1 point**

Response must indicate that Jordan forms a mental representation of the school layout, which allows her to navigate.

OR

Response must indicate that Jordan does not form a mental representation of the school layout, which hinders her navigation.

Acceptable explanations include:

- *After a few weeks at the school, Jordan has developed a pretty good mental representation of the school's layout, so she can easily find everything now.*
- *Because Jordan never developed a mental representation of the layout of her new school, she struggles to find the gymnasium.*

Unacceptable explanations include:

- *Jordan memorized the map of her school to get around.*
-

Jordan's low level of the Big Five trait of extraversion**1 point**

Response must indicate that Jordan's low level of extraversion (e.g., lack of sociability, lack of outgoingness, not getting energy from large crowds, etc.) will make her less likely to interact with others at school.

Acceptable explanations include:

- *Because Jordan is not that outgoing, she finds it hard to make friends at her school.*
- *Because Jordan is not comfortable interacting with others, she won't ask questions of the teacher.*

Unacceptable explanations include:

- *Jordan is outgoing so she makes friends easily.*
-

Part B Jordan tries out for and makes the debate team. Jordan has made friends with other members of the team, and she really enjoys sitting with them at lunch every day. The coach is impressed with Jordan's debate skills, so he makes her the captain of the team. When Jordan starts to help the coach plan for the next big debate, her friends stop sitting with her at lunch. She then stops helping the coach plan for the next debate but ends up winning it.

Explain how each of the following concepts relates to the scenario.

Negative punishment

1 point

Response must indicate that because Jordan's friends stop sitting with her at lunch, she stops helping the coach plan for the next debate.

Acceptable explanations include:

- *Because Jordan's friends stop sitting with her at lunch, Jordan stops helping the coach plan the debate.*
- *Jordan stops planning with the coach because her friends stop sitting with her at lunch.*

Unacceptable explanations include:

- *Jordan changes her behavior because bad things happen to her.*
 - *Jordan stops helping the coach to get her friends to sit with her at lunch.*
-

Formal operational stage of cognitive development

1 point

Response must indicate that Jordan is in the stage of development where she can think abstractly and hypothetically (e.g., critical thinking, reasoning, etc.).

Acceptable explanations include:

- *Jordan being good at debate shows that she can think abstractly and hypothetically, which is formal operational thinking.*

Unacceptable explanations include:

- *Jordan can think well now that she has grown older.*

Responses that include sensorimotor, preoperational, and concrete operational thinking.

- *Jordan can think well about object permanence.*
-

Actor-observer bias concerning Jordan's debate performance**1 point**

Response must indicate that Jordan attributes her own behavior to situational factors

AND

Response must indicate that others in the scenario attribute that same behavior to dispositional factors.

Acceptable explanations include:

- *Jordan believes she won the debate because she had the time to prepare, but Jordan's teammates think she won because she is smart.*

Unacceptable explanations include:

- *When Jordan is debating, the other debaters' think she acts fake.*
- *Jordan believes she is good at debate because she is intelligent.*

Jordan's high level of self-efficacy**1 point**

Response must indicate that Jordan believes she has the capability to accomplish a specific task related to the scenario.

Acceptable explanations include:

- *Jordan believes that she can win her debate.*
- *Jordan is sure she can do what it takes to make friends.*

Unacceptable explanations include:

Response refers to self-confidence or self-esteem without tying it to Jordan's belief about her ability to perform some specific tasks.

- *Jordan's self-efficacy causes her to stop planning with the coach.*
- *Jordan has high self-efficacy, so she believes in herself.*
- *Jordan thinks she is smart.*

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Part A Mobile Gamer Central (MGC) is preparing to launch a new game app. The advertisements for this new game are brightly colored, have lively music, and feature celebrities playing the game. To generate interest in the game, MGC pays to have these advertisements pop up multiple times while people are using other apps on their phone. The marketing director is pleased with the advertising campaign and thinks the game is really fun to play.

Explain how each of the following concepts relates to the scenario.

Peripheral route to persuasion**1 point**

Response must indicate that the advertisements utilize factors other than the quality of the game (e.g., bright colors, lively music, or celebrities shown in the ads) to persuade consumers.

OR

Response must indicate that the person exposed to the advertisement is persuaded by factors other than quality of the game (e.g., bright colors, lively music, or celebrities shown in the ads).

Acceptable explanations include:

- *The people liked the game because of who the celebrities were who were playing it in the ads.*
- *Because they included lots of bright colors and music in their commercials, it is clear that MGC wanted to employ the peripheral route to persuasion in their advertising.*
- *MGC tried to get people to buy the game for reasons other than that the game is well-designed.*

Unacceptable explanations include:

- *The customers like the game because it is easy to play.*

False consensus effect**1 point**

Response must indicate that, because an individual related to the scenario really likes the game/advertising, they overestimate the extent to which other people will like the game/advertising.

Acceptable explanations include:

- *The marketing director thinks everybody will like the game as much as he does.*
- *The marketing director thinks more people will buy the game than actually do because he enjoys it so much.*
- *A consumer really likes the pop-up ads and believes that most other people will like them as well.*

Unacceptable explanations include:

- *The marketing director's opinion is so strong that the other people on the team keep their opinions to themselves.*
- *People see advertisements with celebrities enjoying the game and assume everyone enjoys the game.*

Mere-exposure effect**1 point**

Response must indicate that repeated exposure(s) to the game/advertisement will increase the liking/enjoyment of the game/advertisement.

Acceptable explanations include:

- *The more often people see the ads pop up on their phone, the more they will like the game. People liked the advertisement the second time they saw it more than the first time.*
- *The more times people play the game, the more likely they are to buy it.*

Unacceptable explanations include:

- *By playing the game, the people enjoy it and want to download it.*

Part B After a few weeks with moderate success, MGC's marketing director decides to test the most effective ways to increase sales of the game. Marketing researchers recruit 100 people to play the new game. They randomly assign half of the people to observe someone demonstrating how the game is played and assign the other half of the people to play the video game themselves. Participants rate how likely they are to buy the game on a scale of 1 (not likely) through 10 (very likely). Results are presented in the table.

Participants' Rating	Observed Game Demonstration (<i>n</i> = 50)	Personally Played Game (<i>n</i> = 50)	<i>p</i> value
Mean	6.31	2.04	<0.001
Standard Deviation	1.25	0.80	

Identify the operational definition of the dependent variable in the study.**1 point**

Response must indicate that the operational definition of the dependent variable is the rating/score/number on the scale used in the study.

Acceptable explanations include:

- *The rating of the game on a scale of 1–10 is the dependent variable.*
- *The score of the survey indicating how likely the participant is to buy the game is the operational definition of the dependent variable.*

Unacceptable explanations include:

- *The operational definition of the dependent variable is which group the people were in.*
- *The operational definition of the DV is whether people will buy the game.*
- *The operational definition is how much people like the game.*

Explain what the difference between the standard deviations in the study indicates.

1 point

Response must indicate that the “personally played game” group ratings are more similar/less varied.

OR

Response must indicate that the “observed game demonstration” group ratings differ more/varied more.

Acceptable explanations include:

- *The personally played game group had responses that were more alike because their standard deviation is closer to zero.*
- *The ratings in the group who observed the game were more spread out than the group who played the game.*

Unacceptable explanations include:

- *The observed game group had higher scores than the personally played game group.*

Explain why random assignment is necessary for determining cause and effect in the study.

1 point

Responses must indicate that random assignment is necessary because it would help eliminate or reduce the impact of confounding variables related to individual differences.

Acceptable explanations include:

- *The researchers used random assignment to make sure individual differences are controlled for.*
- *The researchers used random assignment to make sure differences between participants are more likely to be spread out evenly between the two groups.*
- *The researchers used random assignment to make sure gender wasn't the reason why people wanted to buy the app.*

Unacceptable explanations include:

- *They must get a random group of people to participate in order to establish cause and effect.*
 - *Random assignment is necessary for it to be an experiment.*
 - *Random assignment will allow the MGC researchers to eliminate bias and confounding variables.*
-

Explain what the p value allows MGC to conclude about the study.

1 point

Response must indicate that the p value allows MGC to conclude that the IV (observing vs. playing the game) caused a change in the DV (ratings).

OR

Response must indicate that the p value allows MGC to conclude that the results of the study or difference between the groups' ratings were significant.

OR

Response must indicate that the p value allows MGC to conclude that the difference between the groups' ratings was not (or not likely) due to chance.

Acceptable explanations include:

- *The p value allows them to conclude that the people who observed the game demo were significantly more likely to say they would buy the app.*
- *The p value says that the groups' ratings were different enough to be statistically significant.*
- *The p value says that the difference in the group's ratings about the game is not likely due to chance.*
- *The p value allows MGC researchers to reject the null hypothesis.*

Unacceptable explanations include:

- *The p value shows that the results are accurate.*
- *The p value shows that the people who played the game found the experience to be significant.*

Total for question 2 7 points