Question 1

Jackie has been chosen for the lead role in the school play. She is both nervous and excited about this opportunity.

Part A

Explain how each of the following concepts may help her performance in the play.

- Context-dependent memory
- Acetylcholine
- Kinesthetic sense
- Selective attention

Part B

Explain how each of the following concepts may hinder her performance in the play.

- Proactive interference
- Yerkes-Dodson law of arousal
- External locus of control

General Considerations

1. Answers should be presented in sentences cogent enough for the meaning of the response to come through. Spelling and grammatical mistakes do not reduce the score of a response, but spelling must be close enough that the reader is convinced of the word.
2. Do not score any notes made on the question section of the booklet. Score only what has been written in the blanks provided in the booklet.
3. Definitions alone will not score, but they may be used to enhance the application.
4. Within a point, a student will not be penalized for misinformation unless it directly contradicts correct information that otherwise would have scored a point. A correct application with an incorrect definition is not considered a direct contradiction and should score the point.
5. Rubric examples provided for each point are not to be considered exhaustive.
6. Responses that simply parrot or repeat the terms from the question will not score.
7. A response can score a point only if it clearly conveys what part of the question is being answered. It may be possible to infer what part of the question is being answered if it is consistent with the order of the question.
Question 1 (continued)

Part A

All responses in Points 1–4 must include a reference to the concept helping Jackie in either her practice for the play OR her actual performance in the play.

Point 1: Context-dependent memory

Responses must link Jackie’s use of something external to her as a memory cue to a positive practice-/performance-related outcome.

- Score: “Jackie knows that she should rehearse her role on the stage on which the play will actually take place to do her best in the performance.”
- Score references to dialogue or other elements of the play that are external to Jackie (e.g., another actor), but do NOT score her simply remembering her lines.
- Do NOT score references to circadian rhythm.
- Do NOT score examples of mood-congruent memories or reasons for forgetting (e.g., interference, decay).

Point 2: Acetylcholine

Responses must link acetylcholine’s role in memory, learning, muscle movement, emotion, arousal, or calming to a positive practice-/performance-related outcome.

- Score: “Jackie’s acetylcholine allows her to remember when she needs to say particular lines during the play.”
- Score: “Acetylcholine allows Jackie to move easily from one position to another on the stage.”

Note: Responses need not identify ACh as a neurotransmitter or chemical. However, responses that mischaracterize ACh as a drug, hormone, brain part, neuron, etc., do NOT score the point.

Point 3: Kinesthetic sense

Responses must link Jackie’s sensation of the movement of her body or the position of her body part(s) to a positive practice-/performance-related outcome.

- Score: “Jackie can dance and wave her arms in the air during the play without having to look for them due to her sense of kinesthesia.”
- Do NOT score vestibular sense or reference to balance alone.
- Do NOT score references to whole-body location in space; (e.g., “Jackie knows where she is on the stage, which makes for a better performance.”)
- Do NOT score references to memory (e.g., muscle memory; remembering what movements she’s supposed to make).
Point 4: Selective attention

Responses must link Jackie’s directing her focus AND her filtering or ignoring other stimuli to a positive practice-/performance-related outcome.

- Score: “Jackie ignores her upset stomach as the play starts so that she can focus on her lines.”
- Do NOT score references to deliberate prioritization or allocation of time; e.g., “Jackie focuses exclusively on her play, ignoring her other classes, and she does a great job in the play.”

Part B

All responses in Points 5–7 must include a reference to the concept hindering Jackie in either her practice for the play OR her actual performance in the play.

Point 5: Proactive interference

Responses must link an older memory interfering with the learning or retrieval of a newer memory to a negative practice-/performance-related outcome.

- Score: “Jackie forgets her line for the play when she accidentally speaks a line from a play she was in last year.”
- Do NOT score retroactive interference or other reasons for forgetting.

Point 6: Yerkes-Dodson law of arousal

Responses must link Jackie’s non-optimal arousal level (excessively high or low) to a negative practice-/performance-related outcome.

- Score: “Because Jackie is extremely nervous as the play starts, she forgets the first few lines of the play.”
- Score: “Jackie’s boredom with her role hindered the quality of her rehearsal for the play.”
- Do NOT score Jackie being at the optimal level of arousal and doing well in the play.

High arousal path: Words such as “nervous,” “aroused,” “anxious,” and so on are insufficient to indicate nonoptimal arousal and must have an amplifying modifier, such as “extremely,” “too,” “high,” “so,” or “overly,” in order to score the point.

Low arousal path: Modifiers may be used to indicate low arousal (e.g., “not aroused enough”), but words indicating the LACK of arousal (e.g., unmotivated, disinterested, inattentive, bored) may score on their own.
**Point 7: External locus of control**

Responses must link Jackie’s belief that outcomes are subject to an outside factor (e.g., luck, fate, destiny, other people, circumstances) to a negative practice-/performance-related outcome.

- Score: “Jackie thinks her performance depends on how the rest of the cast does, so she does not rehearse enough.”
- Score: “Jackie believes she is destined to fail, so she doesn’t perform as well.”
- Do NOT score references to her lack of either confidence (e.g., self-efficacy, self-esteem, self-fulfilling prophecy) or sense of control UNLESS they are linked to an outside factor.
- Do NOT score: “Jackie believes she is going to fail, so she doesn’t even try to do a good job in the play,” because there is no outside force.
- Do NOT score: “External locus of control states that outside factors have more of a role in action than internal ones, which could hinder Jackie’s performance,” because there is no indication of a belief on Jackie’s part.
Question 2

A survey was conducted to determine the state of the physical and psychological health of high school students.

Part A

Some of the survey questions related to student stress levels and student absences due to illness. The data on these variables are displayed below.

- What is the most appropriate conclusion that can be drawn based on the figure above?
- Explain how the data depicted in the graph are consistent with the exhaustion stage of the general adaptation syndrome.
- A researcher wants to conduct another study using the same variables, but wants to set it up as an experiment. Explain one reason that an institutional review board (IRB) might not approve this new study.

Part B

Some of the survey questions related to risky behaviors. The results indicated that 90 percent of high school students' risky behaviors were influenced by social factors.

Explain how each of the following may contribute to an increase in risky behaviors.

- Deindividuation
- Normative social influence

Part C

Explain how each of the following may contribute to good physical or psychological health of high school students.

- Cognitive restructuring
- Incentive motivation
Question 2 (continued)

General Considerations

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5. Rubric examples provided for each point are not to be considered exhaustive.
6. Responses that simply parrot or repeat the terms from the question will not score.
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Part A

Point 1

The response must indicate that (1) stress level positively predicts the number of absences due to illness OR (2) there is a positive (direct) correlation between stress level and number of absences OR (3) as stress levels increase, the number of absences tends to increase OR (4) as stress levels decrease, the number of absences tends to decrease.

- Score: “We can positively predict number of student absences due to illness from students’ stress levels.”
- Score: “There is a positive correlation between stress level and number of absences.”
- Score: “As stress levels increase, the number of absences tends to increase.”
- Do NOT score anything to do with stress causing absences. Phrases such as “leads to, due to, results from” without clear description of correlation will not score, as they imply causation.
- Do NOT score reference to negative (inverse, indirect) correlation.

Note: Because these are correlational data, it would also be correct to use the number of absences as the predictor of stress level.

Note: Responses may substitute synonyms for correlation, such as association or relationship.

Point 2

The response must reference the study and indicate vulnerability to illness or depletion of the immune system.

- Score: “The research findings are consistent with the exhaustion stage of general adaptation syndrome (GAS), in which our body’s immune system is depleted and we get sick.”
- Do NOT score alarm or resistance stages of GAS.

Note: Response does not need to mention that exhaustion is the third/final stage of GAS.
Point 3

The response must indicate that the manipulation of stress, absences, or illness would be unethical or harmful.

- Score: “It is unethical to randomly assign people to stress levels because it might cause undue harm to participants.”
- Score: “It is harmful to induce stress in the participants.”
- Do NOT score references to harm without specific mention of stress, absences, or illness.

Note: Manipulation of stress, absences, or illness can be described with synonyms such as influence, cause, induce.

Part B

The response to Points 4–5 must indicate that the concept facilitates/increases risky behaviors.

The response does not have to relate to the original survey, as the directions in Part B do not say anything about risky “health” behaviors, only risky behavior in general.

Risky behavior can be indicated as any behavior with a potentially negative consequence.

Point 4

The response must include that the presence of other people diminishes one’s sense of self-awareness OR increases feelings of anonymity OR diminishes one’s sense of individual responsibility or inhibition. This increases one’s engagement in risky behavior.

- Score: “A person feels anonymous in large groups, so they do irresponsible things.”
- Score: “Drew is at a concert with 100,000 other people, so he loses his sense of self-awareness and tosses his empty soda can on the field instead of throwing it in the recycle bin like he normally would do.”
- Do NOT score other group-related phenomena such as groupthink, group polarization, social facilitation, social loafing, bystander effect.

Point 5

The response must indicate that a person engages in risky behavior in order to fit in/gain social approval or avoid social disapproval.

- Score: “People might do risky things because they think it will make them look cool in the eyes of others.”
- Score: “Susie has never stolen anything, but when she is shopping with friends, she sees them shoplifting, so she steals to fit in with her classmates.”
- Do NOT score references to informational social influence or simply learning by observation or conformity.

Note: A response can use descriptions of fitting in, such as belonging.

Note: Using “normal” alone is not enough to indicate social approval. If a response uses the word “normal,” it must also clearly describe social approval in the eyes of others.
Part C

Point 6

The response must indicate that reinterpreting one’s negative thoughts in a positive way leads to better physical or psychological health.

- Score: “When Rik gets a bad grade on his physics test, he is sad. But he tells himself that at least now he has lots of room to improve before the next test and starts to feel better about himself.”
- Score: “Liz is overwhelmed by her pile of homework, but when she decides that it is a challenge that she can conquer, her headache goes away.”
- Score: “Elliot changes his negative thoughts to more positive thoughts, which leads to better psychological health.”
- Do NOT Score “Andi has been dwelling on negative thoughts about school, so she decides instead to start thinking about more positive things like summer vacation, which reduces her stress level.”

Point 7

The response must include an external stimulus that pulls someone towards a behavior that contributes to good physical or psychological health.

- Score: “When Barney saw an ad for a free t-shirt for joining the gym, he signed up for a membership.”
- Score: “Kristin meditates for 15 minutes a day so that she will receive extra credit in her health class.”
- Do NOT score references to wants and desires without an external stimulus that pulls someone toward a behavior.
- Do NOT score “extrinsic motivation” without description or explicit mention of an external stimulus.

Note: The response may earn a point by using an example of either positive or negative reinforcement as the external incentive.

Note: If the response discusses a behavior that does not obviously contribute to good physical or psychological health, then it must specify how the behavior contributes to good physical or psychological health.