### 1:

Identify the conclusion of the following argument. It is hard not to verify in our peers the same weakened intelligence due to emotions that we observe in our everyday patients. The arrogance of our consciousness, which in general, belongs to the strongest defense mechanisms, blocks the unconscious complexes. Because of this, it is difficult to convince people of the unconscious, and in turn to teach them what their conscious knowledge contradicts. (Sigmund Freud, The Origin and Development of Psychoanalysis)

Out of the following options. Which is correct?

A)"It is hard not to verify in our peers the same weakened intelligence due to emotions that we observe in our everyday patients.”

B)"The arrogance of our consciousness, which in general, belongs to the strongest defense mechanisms, blocks the unconscious complexes.”

C)"Because of this, it is difficult to convince people of the unconscious, and in turn to teach them what their conscious knowledge contradicts.”

D)"It is difficult to convince people of the unconscious, and in turn to teach them what their conscious knowledge contradicts.”

**Answer: D**

### 2:

Select the best translation into predicate logic. David teaches Chris. (c: Chris; d: David; Txy: x teaches y)

Out of the following options. Which is correct?

A)"Tdc"

B)"Tcd"

C)"Tcc"

D)"dTc"

**Answer: A**

### 3:

Select the best English interpretation of the given proposition, using the following translation key: Ax: x is an apartment Hx: x is a house Lx: x is large Bxy: x is bigger than y (∃x)[(Ax • Lx) • (∃y)(Hy • Bxy)

Out of the following options. Which is correct?

A)"Some large houses are bigger than some apartments."

B)"Some houses are bigger than all large apartments."

C)"Some large apartments are bigger than some houses."

D)"Some houses are bigger than some large apartments."

**Answer: C**

### 4:

Construct a complete truth table for the following argument. Then, using the truth table, determine whether the argument is valid or invalid. If the argument is invalid, choose an option which presents a counterexample. (There may be other counterexamples as well.) ~G ⊃ H ~H / G"

Out of the following options. Which is correct?

A)Valid.

B)Invalid. Counterexample when G and H are true.

C)Invalid. Counterexample when G is true and H is false.

D)Invalid. Counterexample when H is true and G is false.

**Answer: A**

### 5:

Use the following key to translate the given formula of PL to natural, English sentences.

A: Marina reads a Percy Jackson book.

B: Izzy plays Minecraft.

C: Emily stops working.

D: Russell makes dinner. E: Ashleigh stops by. (~B • E) ⊃ D"

Out of the following options. Which is correct?

1)If it's not the case that both Izzy plays Minecraft and Ashleigh stops by then Russell makes dinner.

2)If it's both not the case that Izzy plays Minecraft and Ashleigh stops by then Russell makes dinner.

3)Izzy playing Minecraft and Ashleigh stopping by entails that Russell makes dinner.",

4)Russell's making dinner is a sufficient condition for Izzy not playing Minecraft and Ashleigh stopping by.

**Answer: B**

### 6:

Select the best English interpretation of the given proposition, using the following translation key: Ax: x is an apartment Hx: x is a house Lx: x is large Bxy: x is bigger than y (∃x)[Hx • (∀y)(Ay ⊃ Bxy)]

Out of the following options. Which is correct?

A)"Some houses are smaller than all apartments."

B)"Every house is bigger than every apartment."

C)"Some apartment is smaller than every house."

D)"Some houses are bigger than every apartment."

**Answer: D**

### 7:

Construct a complete truth table for the following argument. Then, using the truth table, determine whether the argument is valid or invalid. If the argument is invalid, choose an option which presents a counterexample. (There may be other counterexamples as well.) ~K ≡ L / (K · L) ∨ (K · ~L)

Out of the following options. Which is correct?

A)"Valid"

B)"Invalid. Counterexample when K and L are true"

C)"Invalid. Counterexample when K is true and L is false"

D)"Invalid. Counterexample when L is true and K is false"

**Answer: D**

### 8:

Identify the antecedent of the following conditional proposition: If the university does not increase financial aid, either the president fails to approve it or the board of trustees prevents it.

Out of the following options. Which is correct?

A)"The university increases financial aid."

B)"The university does not increase financial aid."

C)"The board of trustees prevents it."

D)"The president fails to approve it."

**Answer: B**

### 9:

Which of the following propositions is an immediate (one-step) consequence in PL of the given premises? ~E ⊃ ~F G ⊃ F H ∨ ~E H ⊃ I ~I

Out of the following options. Which is correct?

A)"E ⊃ F"

B)"F ⊃ G"

C)"H ⊃ ~E"

D)"~H"

**Answer: D**

### 10:

Which of the given formulas of PL is the best symbolization of the following sentence? Everybody loves Raymond, or not.

Out of the following options. Which is correct?

A)"L",

B)"~L"

C)"L • ~L"

D)"L ∨ ~L"

**Answer: D**