BOYLE - COGS17 - Study Guide and HW 2-Part E-Sleep, Alzheimers and the Glymphatic System Worksheet.

PID: $\qquad$ Name: (Last) $\qquad$ (First) $\qquad$ Date: $\qquad$

| Answer | Definition | General Principle |
| :--- | :--- | :--- |
|  | How does the suprachiasmatic nucleus <br> respond to daylight and darkness? | Circadian Rhythm |
|  | What are some examples of circadian <br> clock disruptors? |  |
|  | What are the consequences of metabolic <br> disruption? | Relationship between <br> metabolism and <br> cognition. |
|  | What are the appropriate daytime <br> activities? <br> Nighttime activities or restrictions? | Organization of <br> function according to <br> circadian |
|  | Describe how insulin is sensitive to time of <br> day. How does insulin follow a 24 hour <br> day? | Circadian rhythms <br> regulate hormonal <br> functionality |
|  | What is meant when we say that food is a <br> zeitgeber? | The relationship <br> between habits and <br> metabolism |
|  | Detail how insulin and glucagon regulate <br> blood glucose levels. | Bio basics |
|  | What is the relationship between diabetes <br> and AD? <br> What areas of the CNS are insulin <br> sensitive? | Bridging CNS and <br> metabolism <br> disturbances? |
|  |  | Demas Auguste D.? What aspects of |

$\qquad$ (First)

|  | What are the differences between early <br> familial Alzheimer's disease and <br> late-onset Alzheimer's disease? | Alzheimer's basicsDescribe the disease processes that are <br> in place long before symptoms of <br> dementia are evident? |
| :--- | :--- | :--- |
|  | How does excessive amyloid interfere <br> with neuronal signaling? |  |
|  | What are the toxic tangles associated with <br> AD? |  |
|  | What is the effect on insulin sensitivity <br> when there is sleep (e.g. partial night <br> sleep?) | Sleep deprivation |
|  | What is the glymphatic system? <br> When is the glymphatic system most <br> effective? |  |

