

AP Psychology Midterm Study Supplements

UNIT I: PSYCHOLOGY'S HISTORY AND APPROACHES

PSYCHOLOGY'S APPROACHES		PSYCHOLOGY'S APPROACHES	
Approach	Focus	Approach	Focus
Biological	How the body and brain enable emotions, memories, and sensory experiences; how genes combine with environment to influence individual differences	Behavioral	How we learn observable responses
Evolutionary	How the natural selection of traits promoted the survival of genes	Cognitive	How we encode, process, store, and retrieve information
Psychodynamic	How behavior springs from unconscious drives and conflicts	Humanistic	How we meet our needs for love and acceptance and achieve self-fulfillment
		Social-cultural	How behavior and thinking vary across situations and cultures

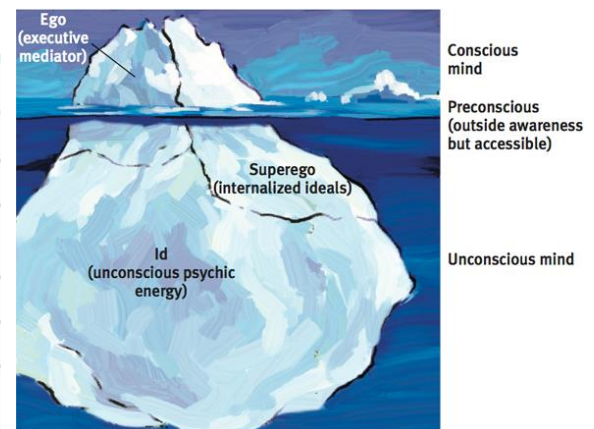
COMPARISON OF A SAMPLE OF MAJOR PSYCHOTHERAPIES			
Therapy	Assumed Problem	Therapy Aims	Method
Psychodynamic	Unconscious forces and childhood experiences	Reduced anxiety through self-insight	Analysis and interpretation
Client-centered	Barriers to self-understanding and self-acceptance	Personal growth through self-insight	Active listening and unconditional positive regard
Behavior	Maladaptive behaviors	Extinction of maladaptive behaviors, and relearning of more adaptive behaviors	Counterconditioning, exposure, desensitization, aversive conditioning, and operant conditioning
Cognitive	Negative, self-defeating thinking	Healthier thinking and self-talk	Reveal and reverse self-blaming
Family	Stressful relationships	Relationship healing	Understanding family social system; exploring roles; improving communication

Approaches to Psychology



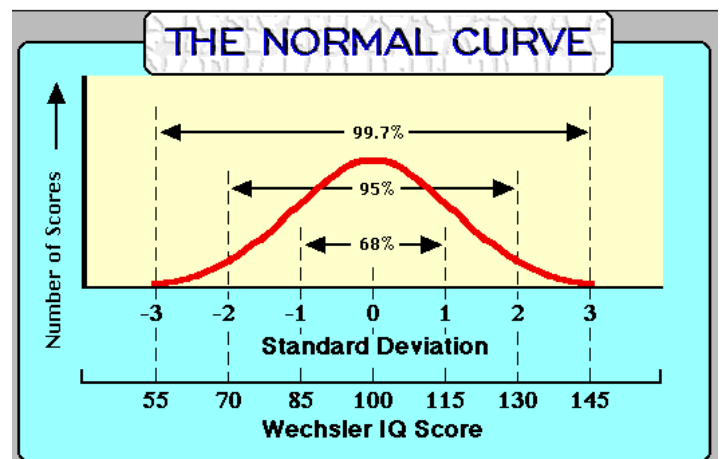
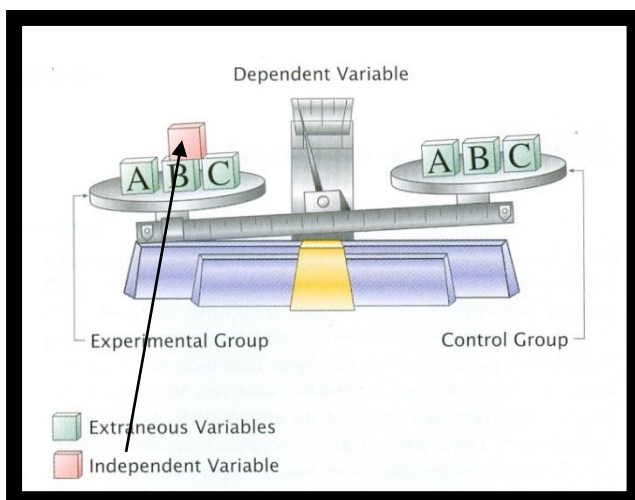
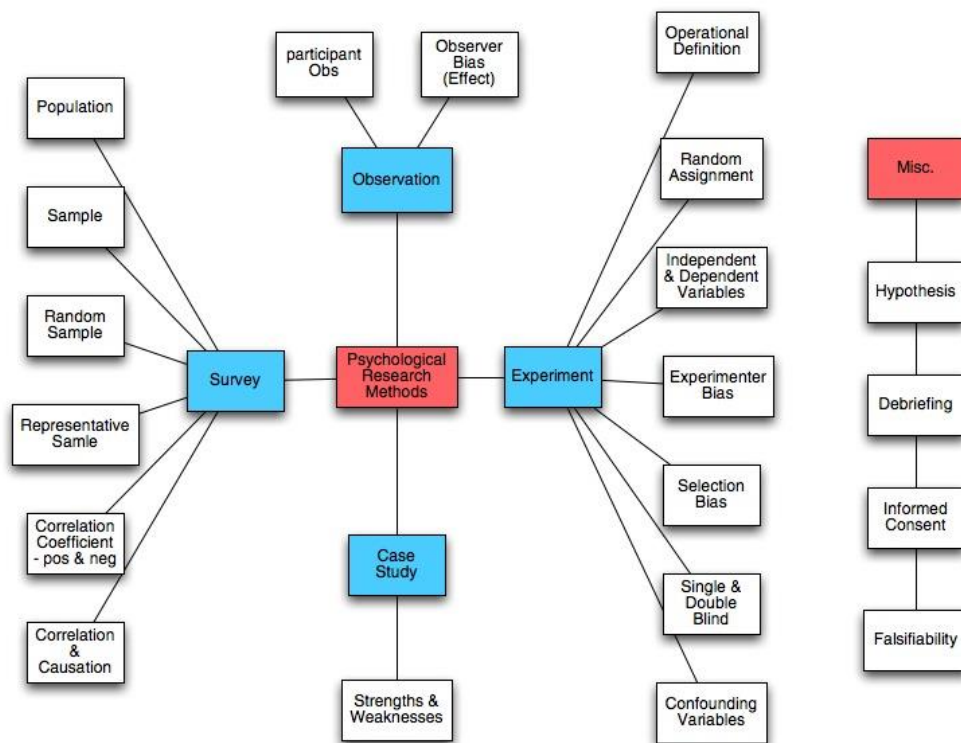
Biological Approach	Psychoanalysis	Cognitive Psychology	Humanism	Behaviorism
Focus on genetic, hormonal, and neuro-chemical explanations of behavior.	Innate drives of sex and aggression (nature). Social upbringing during childhood (nurture).	Innate mental structures such as schemas, perception and memory and constantly changed by the environment.	Maslow emphasized basic physical needs. Society influences a person's self concept.	All behavior is learned from the environment through conditioning.

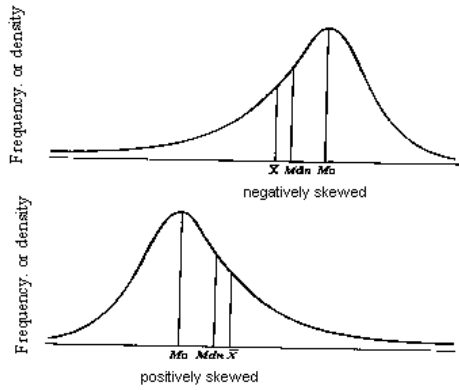
FREUD'S PSYCHOSEXUAL STAGES	
Stage	Focus
Oral (0–18 months)	Pleasure centers on the mouth—sucking, biting, chewing
Anal (18–36 months)	Pleasure focuses on bowel and bladder elimination; coping with demands for control
Phallic (3–6 years)	Pleasure zone is the genitals; coping with incestuous sexual feelings
Latency (6 to puberty)	Dormant sexual feelings
Genital (puberty on)	Maturation of sexual interests



UNIT II: RESEARCH METHODS

COMPARING RESEARCH METHODS					
Research Method	Basic Purpose	How Conducted	What Is Manipulated	Strengths	Weaknesses
Descriptive	To observe and record behavior	Case studies, surveys, or naturalistic observations	Nothing	Case studies require only one participant; surveys may be done fairly quickly and inexpensively (compared to experiments); naturalistic observations may be done when it is not ethical to manipulate variables.	No control of variables; single cases may be misleading
Correlational	To detect naturally occurring relationships; to assess how well one variable predicts another	Compute statistical association, sometimes among survey responses	Nothing	Works with large groups of data, and may be used in situations where an experiment would not be ethical or possible	Does not specify cause and effect
Experimental	To explore cause and effect	Manipulate one or more factors; use random assignment	The independent variable(s)	Specifies cause and effect, and variables are controlled	Sometimes not feasible; results may not generalize to other contexts; not ethical to manipulate certain variables

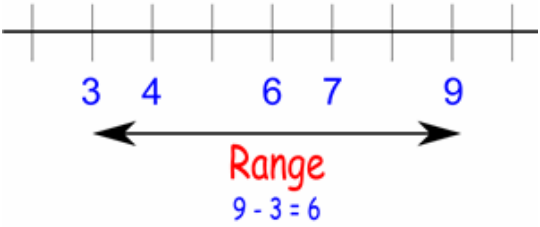




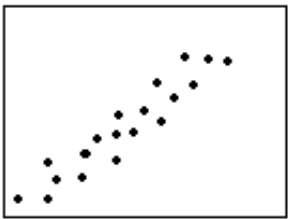
Mean = $\frac{\text{sum of all values}}{\text{total number of values}}$

Median = middle value (when the data are arranged in order)

Mode = most common value



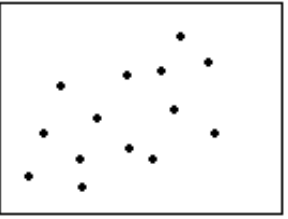
Degree of Correlation



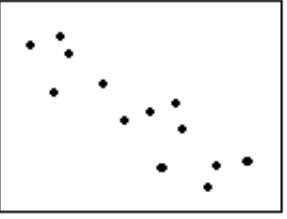
Strong Positive



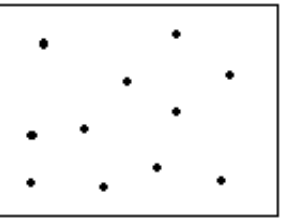
Strong Negative



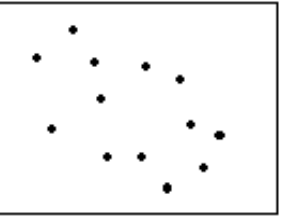
Weak Positive



Moderate Negative



None



Weak Negative

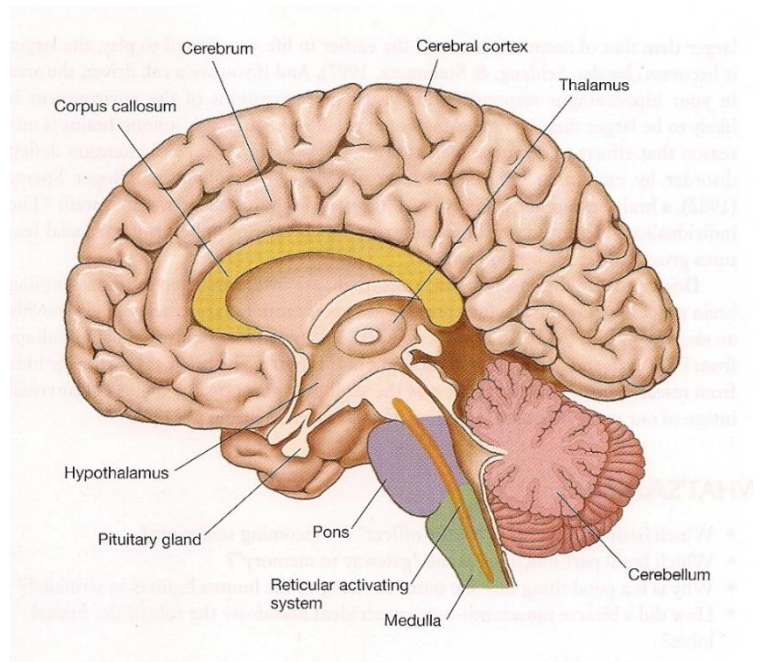
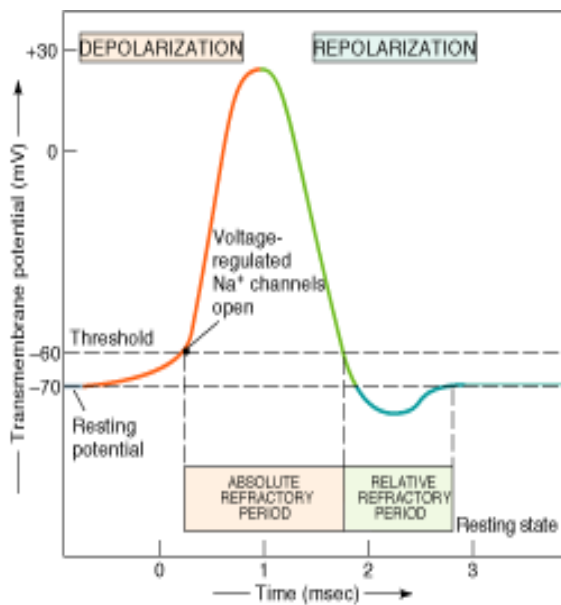
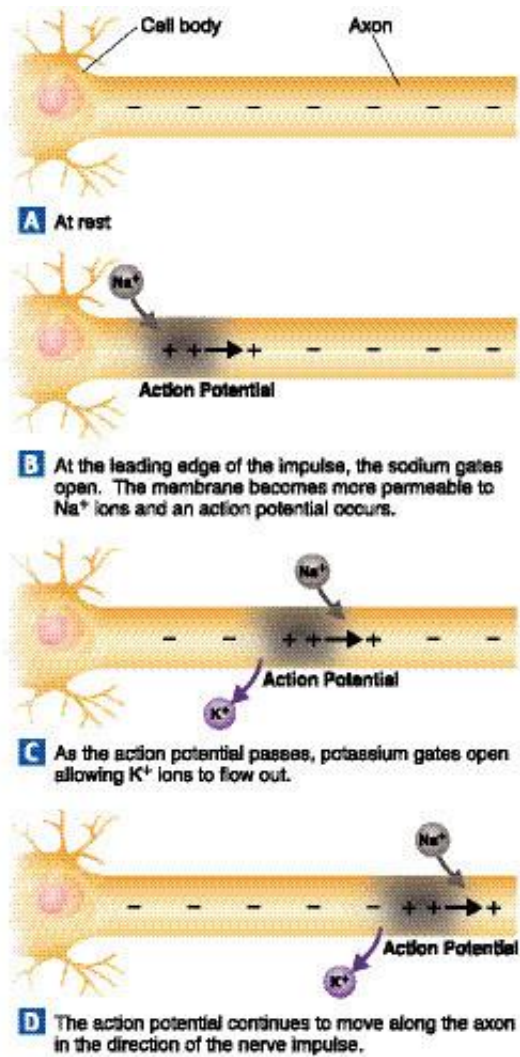
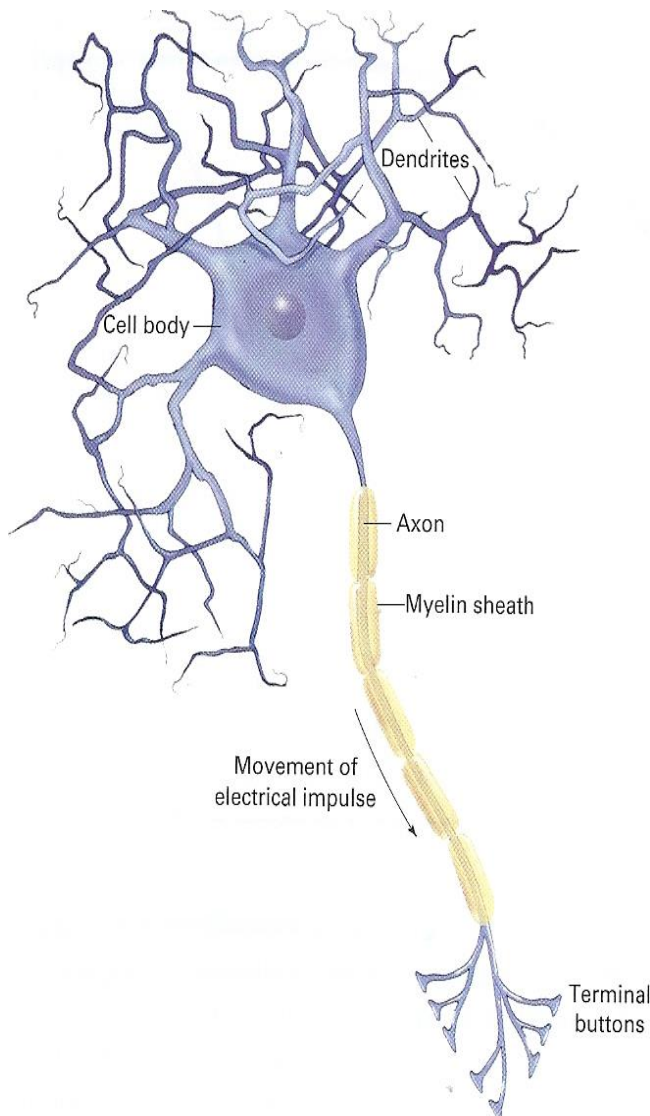
Standard Deviation is a measure of variation (or variability) that indicates the typical distance between the scores of a distribution and the mean.

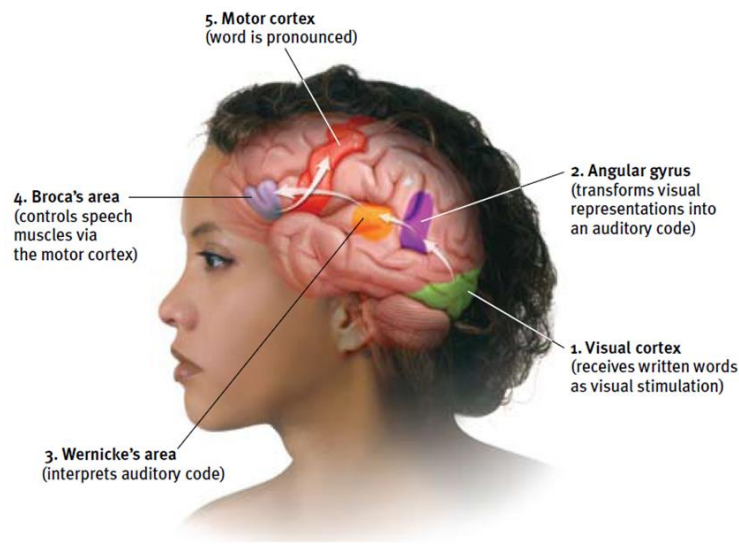
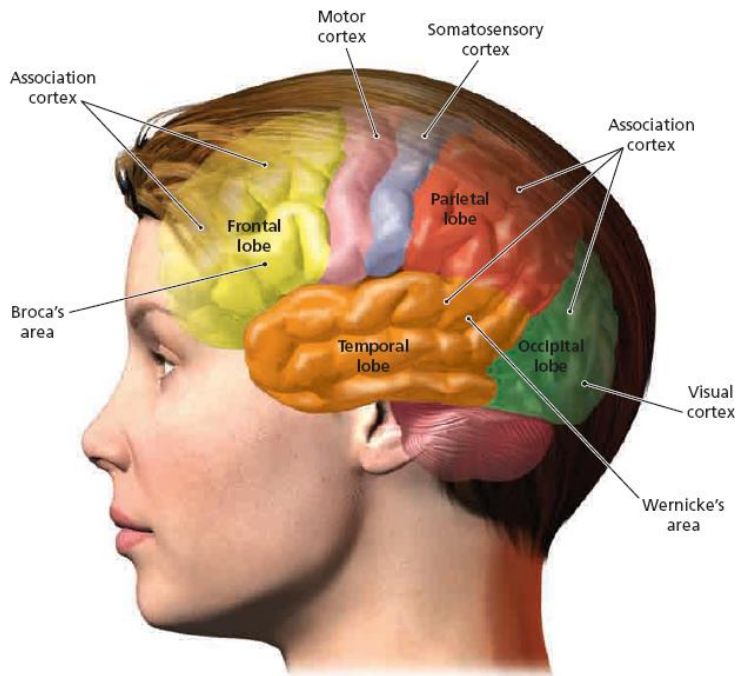
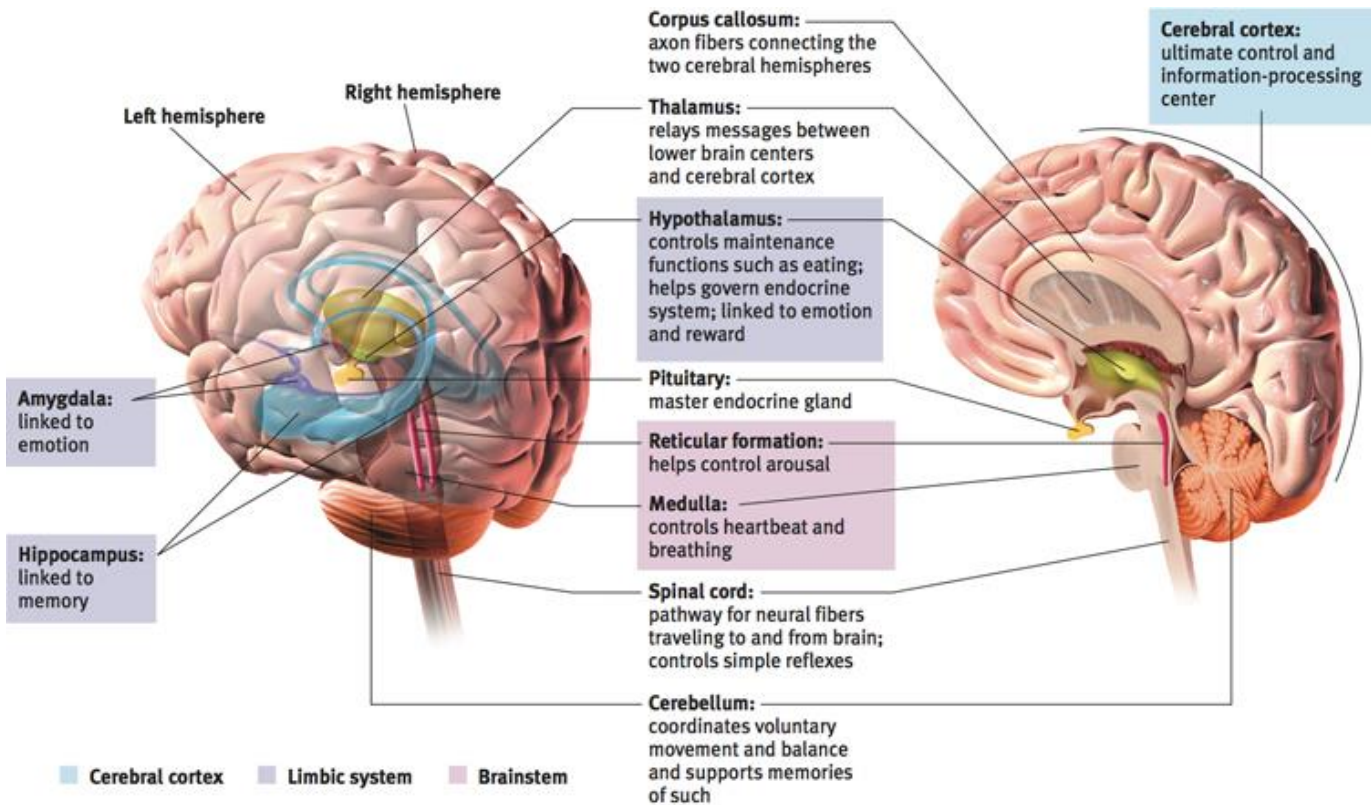
Looking at an example will help us make sense of this. Assume a professor is interested in the satisfaction of students in her psychology class. She decides to survey the students by asking them to rate the class from one to five. From the surveys, she calculates the average score to be three. From this she can assume that people's satisfaction was average. Wanting to know more she decides to calculate the standard deviation and finds it to be equal to two--meaning, the amount of variability between the numbers was 2. This means that most scores were either a one or a five (thus producing the average of three), showing that students were either very satisfied with her class or very dissatisfied with her class (they gave ratings of 1 or 5 most frequently). By obtaining a measure of variability, she was able to understand more about how people felt with the class than she would of with just an average score. This is one of the reasons why standard deviation (and variability) is so important.

Correlation Coefficient
Shows Strength & Direction of Correlation



UNIT 3: BIOLOGICAL BASES OF BEHAVIOR





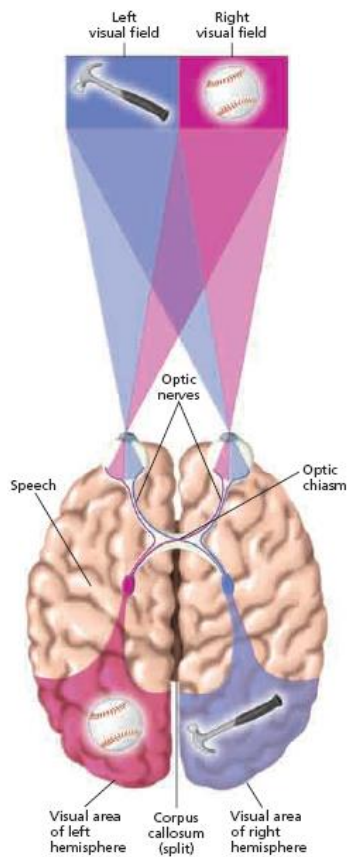
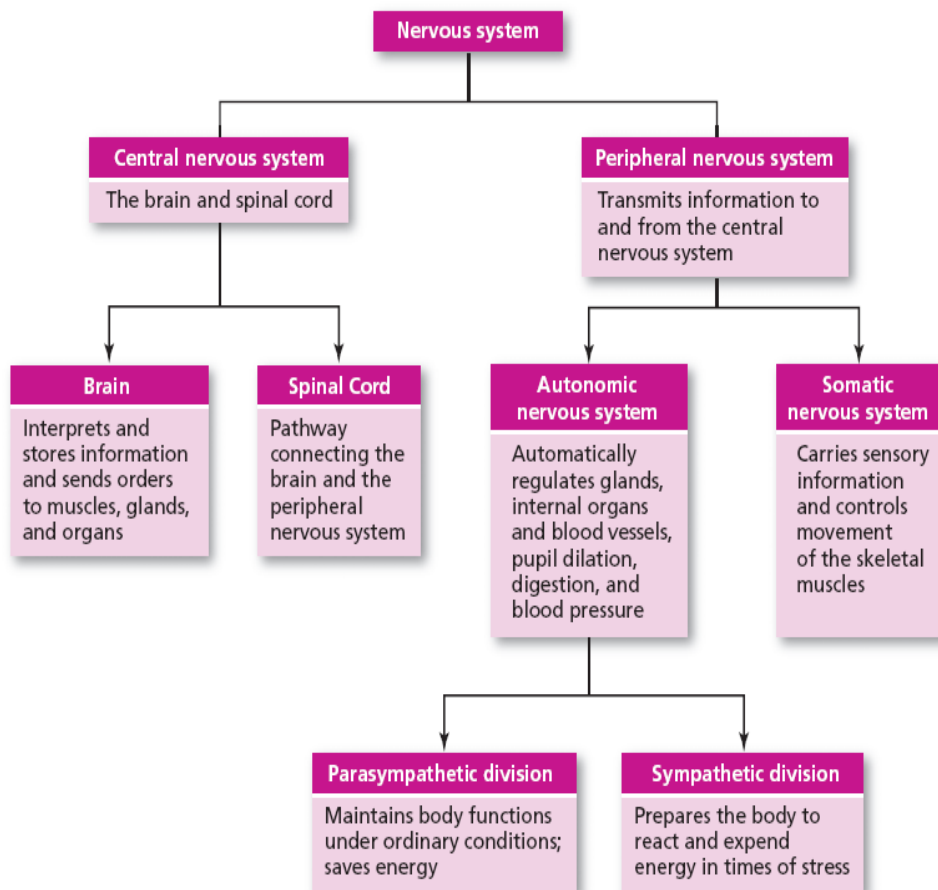
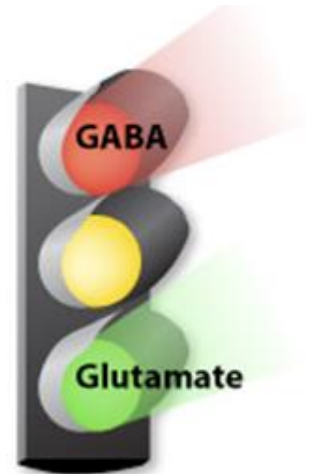
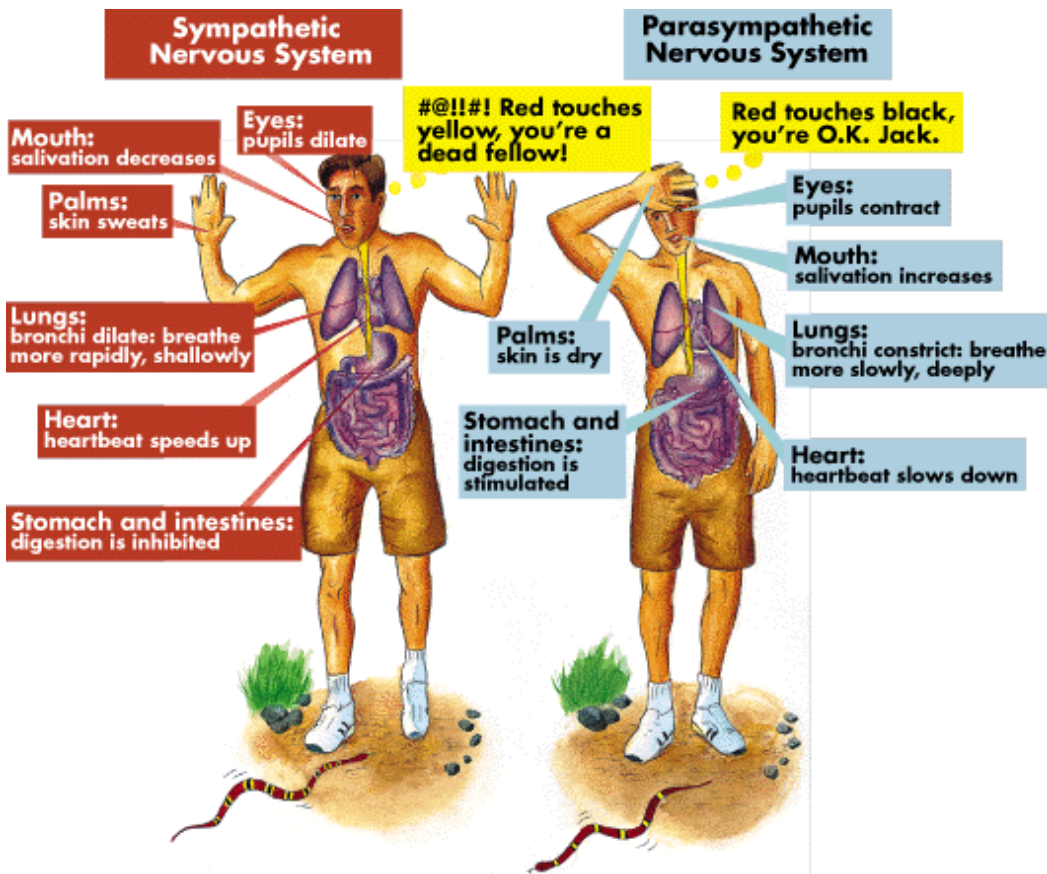
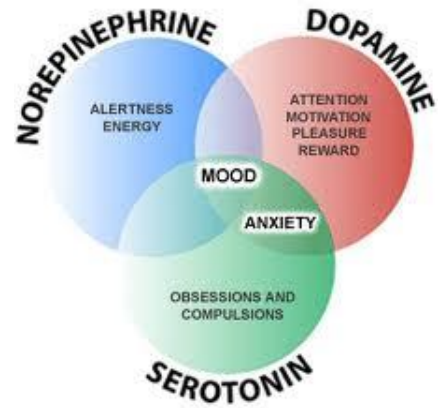
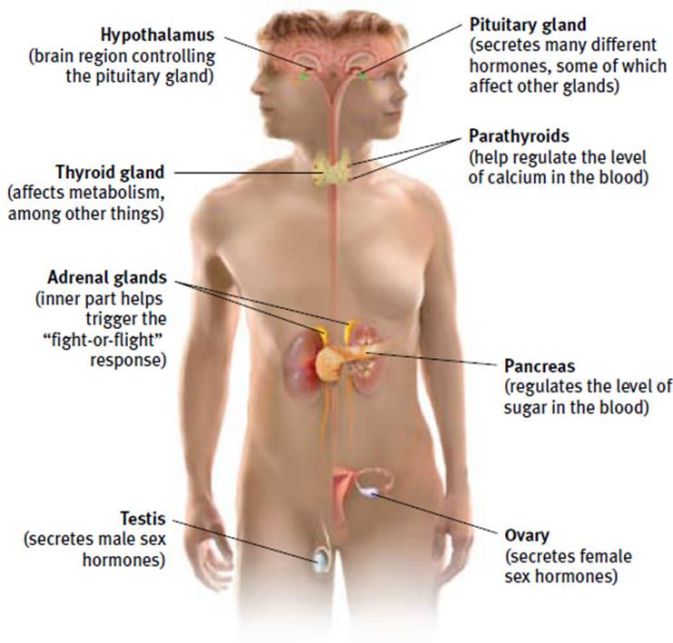


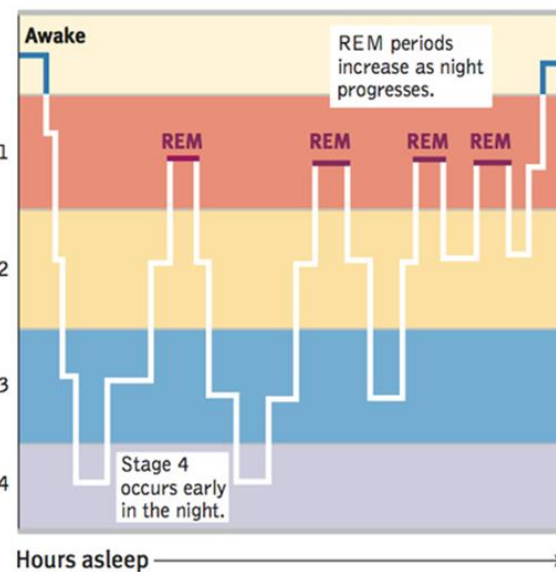
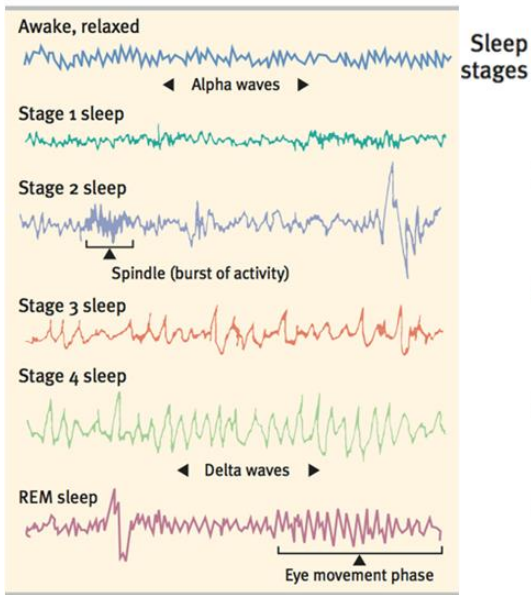
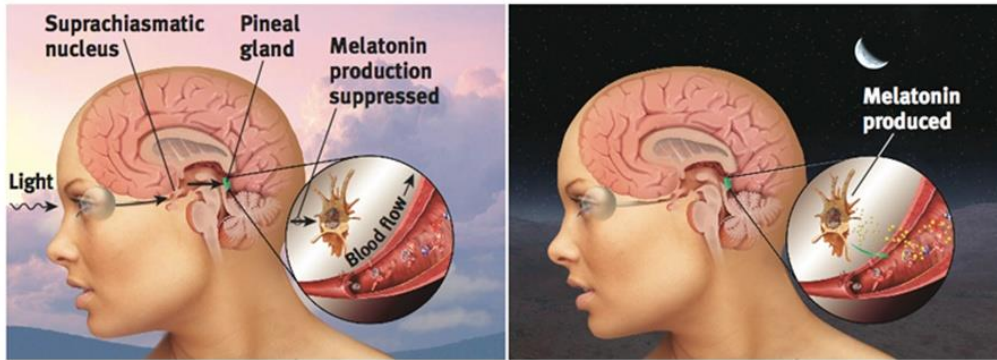
Table 2.2 Specialization of the Two Hemispheres

LEFT HEMISPHERE	RIGHT HEMISPHERE
Controls the right hand	Controls the left hand
Spoken language	Nonverbal
Written language	Visual-spatial perception
Mathematical calculations	Music and artistic processing
Logical thought processes	Emotional thought and recognition
Analysis of detail	Processes the whole
Reading	Pattern recognition
	Facial recognition





UNIT V: STATES OF CONSCIOUSNESS



DREAM THEORIES

Theory	Explanation
Freud's wish-fulfillment	Dreams provide a "psychic safety valve"—expressing otherwise unacceptable feelings; contain manifest (remembered) content and a deeper layer of latent content—a hidden meaning.
Information-processing	Dreams help us sort out the day's events and consolidate our memories.
Physiological function	Regular brain stimulation from REM sleep may help develop and preserve neural pathways.
Activation-synthesis	REM sleep triggers neural activity that evokes random visual memories, which our sleeping brain weaves into stories.
Cognitive development	Dream content reflects dreamers' cognitive development—their knowledge and understanding.

Table 4.6 How Drugs Affect Consciousness

DRUG CLASSIFICATION	COMMON NAME	MAIN EFFECT	ADVERSE EFFECTS
Depressants			
Alcohol	Beer, wine, spirits	Relaxation	Alcoholism, health problems, depression, increased risk of accidents, death
Barbiturates (tranquilizers)	Nembutal, Seconal		Addiction, brain damage, death
Stimulants			
Amphetamines	Methamphetamine, speed, Ritalin, Dexedrine	Stimulation, excitement	Risk of addiction, stroke, fatal heart problems, psychosis
Cocaine	Cocaine, crack		Risk of addiction, stroke, fatal heart problems, psychosis
Nicotine	Tobacco		Addiction, cancer
Caffeine	Coffee, tea		Caffeinism, high blood pressure
Narcotics (Opiates)	Morphine, heroin	Euphoria	Addiction, death
Hallucinogens	Marijuana, hashish, LSD, Ecstasy	Distorted consciousness, altered perception	Possible permanent memory problems, bad "trips," suicide, overdose, and death

SENSATION

Structure or Conditions

- ___ 1. lens
- ___ 2. iris
- ___ 3. pupil
- ___ 4. rods
- ___ 5. cones
- ___ 6. middle ear
- ___ 7. inner ear
- ___ 8. large nerve fiber
- ___ 9. small nerve fiber
- ___ 10. semicircular canals
- ___ 11. sensors in joints
- ___ 12. farsightedness
- ___ 13. nearsightedness

Functions or Descriptions

- a. amplifies sound
- b. closes pain gate
- c. vestibular sense
- d. controls pupil
- e. accommodation
- f. eyeball is too short
- g. opens pain gate
- h. admits light
- i. eyeball is too long
- j. vision in dim light
- k. transduction of sound
- l. kinesthesia
- m. color vision

STATES OF CONSCIOUSNESS #1

Matching items: Match each term with its appropriate definition or description

Descriptions or Definitions

- ___ 1. surface meaning of dreams
- ___ 2. deeper meaning of dreams
- ___ 3. stage(s) of sleep associated with delta waves
- ___ 4. stage(s) of sleep associated with muscular relaxation
- ___ 5. sleep disorder in which breathing stops
- ___ 6. sleep disorder occurring during Stage 4 sleep
- ___ 7. depressant
- ___ 8. hallucinogen
- ___ 9. stimulant
- ___ 10. twilight stage of sleep associated with imagery resembling hallucinations
- ___ 11. disorder in which sleep attacks occur

Terms

- a. marijuana
- b. alcohol
- c. Stage 1 sleep
- d. night terrors
- e. manifest content
- f. cocaine
- g. narcolepsy
- h. sleep apnea
- i. Stages 3 and 4 sleep
- j. REM sleep
- k. latent content

STATES OF CONSCIOUSNESS #2

Matching items: Match each term with its appropriate definition or description

Definitions or Descriptions

Terms

- | | |
|--|-------------------|
| ___ 1. drug that is both a stimulant and mild hallucinogen | a. Freud's theory |
| ___ 2. drugs that increase energy and stimulate neural activity | b. serotonin |
| ___ 3. brain wave of awake, relaxed person | c. Ecstasy |
| ___ 4. brain wave activity during Stage 2 sleep | d. alpha |
| ___ 5. sleep stage associated with dreaming | e. dissociation |
| ___ 6. drugs that reduce anxiety and depress central nervous system activity | f. amphetamines |
| ___ 7. natural painkillers produced by the brain | g. consciousness |
| ___ 8. neurotransmitter that LSD resembles | h. sleep spindle |
| ___ 9. our awareness of ourselves and our environment | i. endorphins |
| ___ 10. theory that dreaming reflects our unconscious erotic drives | j. REM |
| ___ 11. a split between different levels of consciousness | k. barbiturates |

RESEARCH METHODS

Matching items: Match each term with its appropriate definition or description

Terms

Definitions or Descriptions

- | | |
|-----------------------------|---|
| ___ 1. hypothesis | a. an in-depth observational study of one person |
| ___ 2. theory | b. the variable being manipulated in an experiment |
| ___ 3. independent variable | c. the variable being measured in an experiment |
| ___ 4. dependent variable | d. the "treatment absent" condition in an experiment |
| ___ 5. experimental group | e. testable proposition |
| ___ 6. control group | f. repeating an experiment to see whether the same results are obtained |
| ___ 7. case study | g. the process in which research participants are selected by chance for different groups in an experiment |
| ___ 8. survey | h. an explanation using an integrated set of principles that organizes and predicts observations |
| ___ 9. replication | i. the research strategy in which the effects of one or more variables on behavior are tested |
| ___ 10. random assignment | j. the "treatment present" condition in an experiment |
| ___ 11. experiment | k. the research strategy in which a representative sample of individuals is questioned |
| ___ 11. double-blind | l. experimental procedure in which neither the research participant nor the experimenter know which condition the participant is in |

Matching items: Match each term with its appropriate definition or description

Terms

- ___ 1. culture
- ___ 2. median
- ___ 3. placebo effect
- ___ 4. hindsight bias
- ___ 5. mode
- ___ 6. range
- ___ 7. standard deviation
- ___ 8. scatterplot
- ___ 9. mean
- ___ 10. measures of central tendency
- ___ 11. measures of variation
- ___ 12. false consensus effect
- ___ 13. critical thinking
- ___ 14. illusory correlation

Definitions or Descriptions

- a. the mean, median, and mode
- b. the difference between the highest and the lowest scores
- c. the arithmetic average of a set of scores
- d. the range and standard deviation
- e. the most frequently occurring score
- f. the middle score in a distribution
- g. a graphed cluster of dots depicting the values of two variables
- h. a measure of variation based on every score
- i. shared ideas and behaviors passed from one generation to the next
- j. "I knew it all along" phenomenon
- k. reasoning that does not blindly accept arguments
- k. experimental results caused by expectations alone
- k. overestimating others' agreement with us
- k. false perception of a relationship between two variables

NEUROSCIENCE

Matching items: Match each term with its corresponding function or description

Structures or Terms

___ 1. right hemisphere

___ 2. brainstem

___ 3. glial cells

___ 4. aphasia

___ 5. plasticity

___ 6. Broca's area

___ 7. Wernicke's area

___ 8. limbic system

___ 9. association areas

___ 10. left hemisphere

___ 11. angular gyrus

Functions or Descriptions

a. controls speech production

b. specializes in rationalizing reactions

c. translating writing into speech

d. specializes in spatial relations and creativity

e. brain cells that provide nutrients and insulating myelin

f. language disorder

g. oldest part of the brain

h. regulates emotion

i. the brain's capacity for modification

j. responsible for language comprehension

k. brain areas involved in higher mental functions

___ 1. hypothalamus

___ 2. lesion

___ 3. EEG

___ 4. fMRI

___ 5. reticular formation

___ 6. MRI

___ 7. Thalamus

___ 8. corpus callosum

___ 9. cerebellum

___ 10. amygdala

___ 11. medulla

a. amplified recording of brain waves

b. technique that uses radio waves and magnetic fields to image brain anatomy

c. serves as sensory switchboard

d. contains reward centers

e. tissue destruction

f. technique that uses radio waves and magnetic fields to show brain function and structure

g. helps control arousal

h. links the cerebral hemispheres

i. influences rage and fear

j. regulates breathing and fear

k. enables coordinated movement

SENSATION & PERCEPTION

Multiple-Choice Questions

1. Although carpenter Smith perceived a briefly viewed object as a screwdriver, police officer Wesson perceived the same object as a knife. This illustrates that perception is guided by:
 - a. linear perspective
 - b. shape constancy
 - c. retinal disparity
 - d. perceptual set
2. Because the flowers in the foreground appeared coarse and grainy, the photographer decided that the picture was taken too near the subject. This conclusion was based on which depth cue?
 - a. relative size
 - b. interposition
 - c. retinal disparity
 - d. texture gradient
3. The fact that a white object under dim illumination appears lighter than a gray object under bright illumination is called:
 - a. relative luminance
 - b. perceptual adaptation
 - c. color contrast
 - d. lightness constancy
4. When two familiar objects of equal size cast unequal retinal images, the object that casts the smaller retinal image will be perceived as being:
 - a. closer than the other object
 - b. more distant than the other object
 - c. larger than the other object
 - d. smaller than the other object
5. If you slowly bring your finger toward your face until it eventually touches your nose, eye-muscle cues called _____ convey depth information to your brain.
 - a. retinal disparity
 - b. interposition
 - c. continuity
 - d. convergence
6. Concluding her presentation on sensation and perception, Kelly notes that:
 - a. sensation is bottom-up processing.
 - b. perception is top-down processing.
 - c. a. and b. are both true
 - d. sensation and perception blend into one continuous process
7. As her friend Milo walks toward her, Noriko perceives his size as remaining constant because his perceived distance _____ at the same time that her retinal image of him _____.
 - a. increases; decreases
 - b. increases; decreases
 - c. decreases; decreases
 - d. decreases; increases
8. In the *absence* of perceptual constancy:
 - a. objects would appear to change size as their distance from us changed size
 - b. depth perception would be based exclusively on monocular cues
 - c. depth perception would be based exclusively on binocular cues
 - d. depth perception would be impossible
9. The illusion that the St. Louis Gateway arch appears taller than it is wide (even though its height and width are equal) is based on our sensitivity to which monocular depth cue?
 - a. relative size
 - b. interposition
 - c. relative height
 - d. retinal disparity
10. How do we perceive a pole that partially covers a wall?
 - a. as farther away
 - b. as nearer
 - c. as larger
 - d. There is not enough information to determine the object's size or distance
11. An artist paints a tree orchard so that the parallel rows of trees converge at the top of the canvas. Which cue has the artist used to convey distance?
 - a. interposition
 - b. relative clarity
 - c. linear perspective
 - d. texture gradient
12. Objects higher in our field of vision are perceived as _____ due to the principle of _____.
 - a. nearer; relative height
 - b. nearer; linear perspective
 - c. farther away; relative height
 - d. farther away; linear perspective

13. While competing in the Olympic trials, marathoner Kristen O'Brien suffered a stress fracture in her left leg. That she did not experience significant pain until the race was over is probably attributable to the fact that during the race:
- the pain gate in her spinal cord was closed by information coming from her brain
 - her body's production of endorphins decreased
 - an increase in the activity of small pain fibers closed the pain gate
 - a decrease in the activity of large pain fibers closed the pain gate
14. Which of the following is an example of sensory interaction?
- finding that despite its delicious aroma, a weird-looking meal tastes awful
 - finding that food tastes bland when you have a bad cold
 - finding it difficult to maintain your balance when you have an ear infection
 - all of the above are examples
15. In comparing the human eye to a camera, the film would be located in the eyes:
- pupil.
 - lens.
 - cornea.
 - retina.
16. Sensation is to _____ as perception is to _____.
- recognizing a stimulus; interpreting a stimulus
 - detecting a stimulus; recognizing a stimulus
 - interpreting a stimulus; detecting a stimulus
 - seeing; hearing
17. Which of the following correctly lists the order of structures through which sound travels after entering the ear?
- auditory canal, eardrum, middle ear, cochlea
 - eardrum, auditory canal, middle ear, cochlea
 - eardrum, middle ear, cochlea, auditory canal
 - cochlea, eardrum, middle ear, auditory canal
18. Dr. Frankenstein has forgotten to give his monster an important part; as a result, the monster cannot transduce sound. Dr. Frankenstein omitted the:
- eardrum.
 - middle ear.
 - semicircular canals.
 - basilar membrane.
19. Seventy-five-year-old Claude has difficulty hearing high-pitched sounds. Most likely his hearing problem involves:
- his eardrum.
 - his auditory canal.
 - the bones of his middle ear.
 - the hair cells of his inner ear.
20. Which of the following is true of cones?
- Cones enable color vision
 - Cones are highly concentrated in the foveal region of the retina
 - Cones have a higher absolute threshold for brightness than rods.
 - All of the above are true.
21. Assuming that the visual systems of human and other mammals function similarly, you would expect that the retina of a nocturnal mammal (one active only at night) would contain:
- mostly cones
 - mostly rods
 - an equal number of rods and cones.
 - more bipolar cells than an animal active only during the day.
22. As the football game continued into the night, LeVar noticed that he was having difficulty distinguishing the colors of the players' uniforms. This is because the _____, which enable color vision, have a _____ absolute threshold for brightness than the available light intensity.
- rods; cones
 - cones; higher
 - rods; lower
 - cones; lower
23. After staring at a very intense red stimulus for a few minutes, Carrie shifted her gaze to a beige wall and "saw" the color _____. Carrie's experience provides support for the _____ theory.
- green; trichromatic
 - blue; opponent-process
 - green; opponent-process
 - blue; trichromatic

STATES OF CONSCIOUSNESS: SLEEP

Fill-in-the-Blank



This doctor worked the night shift for 6 months and has now switched to days.

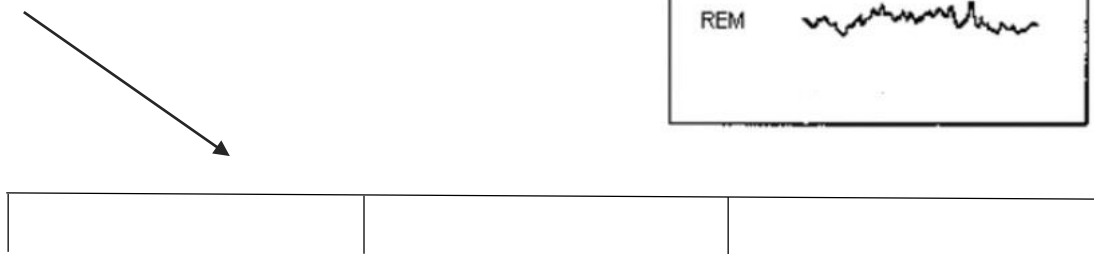
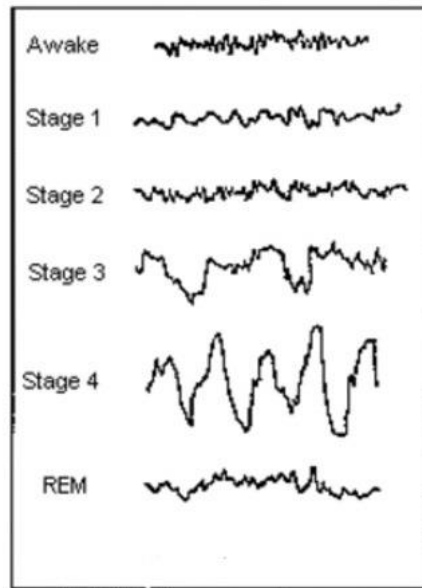
Clearly, he has not yet succeeded in resetting his 24-hour (1)_____. He would be well advised to spend some time outdoors during the day

because

bright light activates (2)_____ in his eyes' (3)_____, which triggers signals to the brain's (4)_____ nucleus, causing the (5)_____ gland to decrease production of the sleep-inducing hormone (6)_____.

Being sleep deprived, this doctor may experience a depressed (7)_____ system, impaired (8)_____, and impaired concentration – not what you want in someone who is treating an illness or injury.

So, the doctor finally gets some sleep, passing through the five sleep stages, preceded by the relaxed, awake state that is characterized with regular (9)_____ waves.



In Stage 1, he may feel he is falling, a (10)_____ sensation, and may also have false sensory experiences or (11)_____

In Stage 2, his brain generates bursts of rapid activity, or sleep (12)_____.

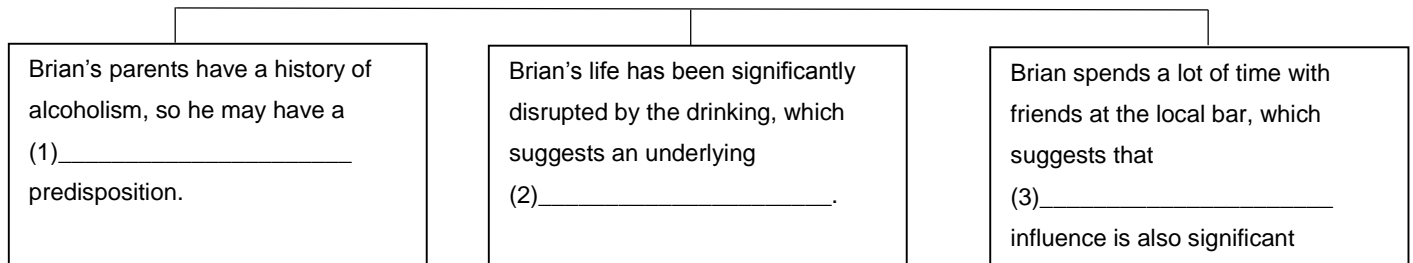
In Stages 3 and 4, (13)_____ sleep, he experiences large, slow (14)_____ waves.

When waves become rapid and saw-toothed and eyes dart about, he has entered (15)_____ sleep, where he (16)_____ of making a major medical breakthrough.

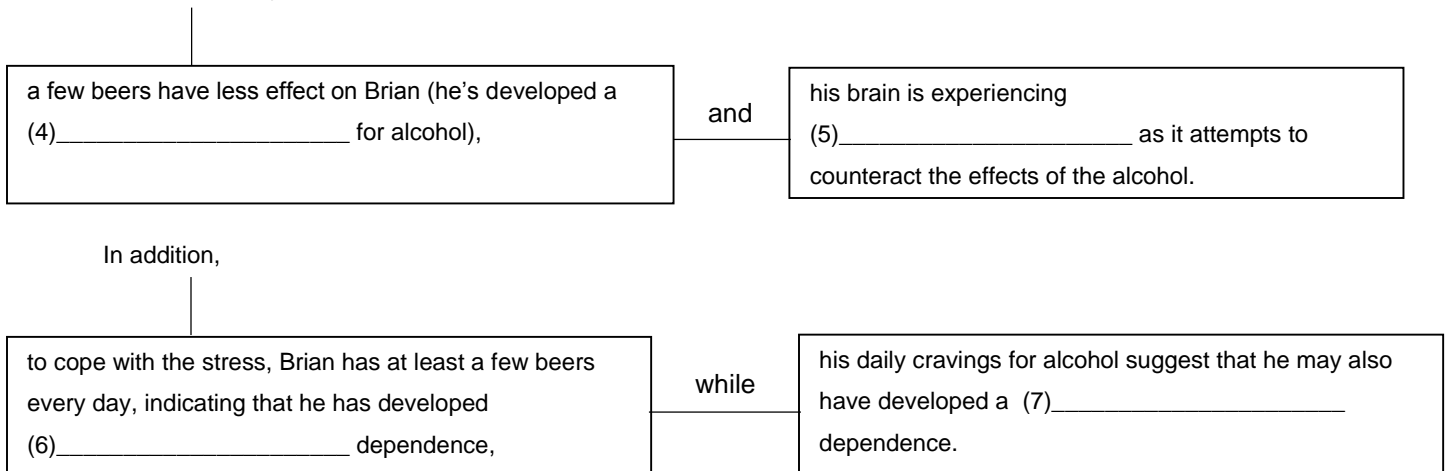
STATES OF CONSCIOUSNESS: PSYCHOACTIVE DRUGS

Fill-in-the-Blank

Jack believes that three main influences may contribute to his neighbor Brian's heavy drinking:



Since Jack moved in 5 years ago, Brian's drinking has increased, most likely because



Jack is particularly worried about the effects on Brian's mind and body:

