

UNIVERSITY OF NATURAL HEALTH™

BND-111

ADVANCED NEURO BIOLOGY OF BELIEFS

TEXT: *Change Your Brain, Change Your Life* by Daniel G. Amen, M.D

The purpose of this course is to help you to learn proper and accurate knowledge concerning the physiology of the brain. The text for this course will help you to see that “many ‘psychological problems’ are in reality brain problems.” As a result of his brain research, Dr. Amen, he has seen “people become more effective, more loving, and more capable by gaining more access to their own brain function.”

COURSE KEY CONCEPTS

- How Does the Brain Work?
- Looking Into Worry and Obsessive Behavior
- Can Things Go Wrong?
- Getting Unstuck
- Optimizing Brain Function
- Looking Into Memory and Temper
- What Are The Brain Systems?
- Enhancing Experience
- Our Brain Systems Are All Interconnected
- Brain Pollution
- Brain Physiology
- Drugs, Violence and The Brain
- Looking Into Anxiety and Fear
- Brain Patterns and Intimacy
- Becoming Focused
- Behavioral Prescriptions
- Brain Dos and Don'ts

ASSIGNMENTS & STUDY SUGGESTIONS

- (1) Carefully read and study the material assigned to you.
- (2) Keep a dictionary and a medical dictionary next to you at all times.
- (3) Always take notes while reading the material, especially if it's **KEY CONCEPTS**-related.
- (4) Complete **ALL PROGRESS TESTS 1, 2, ETC.**
- (5) **DO NOT SEND** Progress Tests unless **ALL** of them are completed!
- (6) Please allow four to six weeks for grading **ALL** Progress Tests.
- (7) Please remember that your Progress Tests' **COMBINED GRADE AVERAGE WILL ACCOUNT FOR 20% OF YOUR COMBINED FINAL EXAMINATION GRADE AVERAGE!**
- (8) **STUDENTS! DO NOT** commence your **FINAL EXAMINATION** until all Progress Tests have been graded and you have satisfactorily completed and attained a 70% grade average, **AND YOUR INSTRUCTOR HAS GIVEN YOU PERMISSION** to commence your **FINAL EXAMINATION.**
- (9) Complete all projects in the course.
- (10) Complete your **FINAL EXAMINATION** and send it to the school for grading! A combined grade average of 70% must be achieved for **SATISFACTORY** completion of your Final Examination.
- (11) Please allow four to six weeks for grading of your Final Examination.

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PROGRESS TEST 1

TEXT: *Change Your Brain, Change Your Life* by Daniel G. Amen, M.D

This Progress Test may contain True or False, Multiple Choice, Fill in the Blanks, or Questions and Answers. At the end of the Progress Test, you will find Answer Sheets on which to write your answers.

1. True or False: SPECT is single photon emission computerized topography.
2. Name the five brain systems.
3. True or False: SPECT studies belong to the branch of medicine called x-ray medicine.
4. True or False: "In the last decade, it has become increasingly recognized that many neurological and psychiatric disorders are not disorders of the brain's anatomy, but problems in how it functions."
5. [A] SPECT studies are complemented by such diagnostic tools as _____ and _____.
[B] How does SPECT differ from these tools?
 1. _____
 2. _____
 3. _____
6. Name the five common ways in which SPECT studies are utilized in medicine.

7. Areas of diagnostic effectiveness of SPECT are: _____
- [A] ADD
 - [B] Alzheimer's disease
 - [C] Anger
 - [D] Stroke
 - [E] Depression
 - [F] Head trauma
 - [G] All of the above
 - [H] A & B only
8. What is Dr. Amen's definition of the deep limbic system?
9. The deep limbic system lies near the _____.
10. True or False: The deep limbic system is a more recent evolution in the brains of mammals.
11. The subsequent evolution of the surrounding _____ in higher animals, especially _____, gave us the capacity for problem solving, planning, organization, and rational thought.
12. The deep limbic system of the brain is involved in setting _____ tone. The deep limbic system adds the _____ spice, if you will, in both positive and negative ways.
13. _____ is a classic example of the emotional shading principle.
14. What components of the memory are reported to be stored in the deep limbic system?
15. List five things that are involved with or affected by the deep limbic system.
16. The deep limbic system, especially the _____ at the base of the brain, is responsible for translating our emotional state into physical feelings of relaxation or tension.

17. True or False: The front half of the hypothalamus sends stimulating or fear signals to the body through the sympathetic nervous system. The front half of the hypothalamus, when stimulated, is responsible for the fight or flight response.
18. Fight or flight is a “_____ response.”
19. The basal ganglia are involved with integrating _____, _____, and _____, along with helping to shift and smooth _____ behavior.
20. True or False: When the basal ganglia are underactive (as we have seen in the case with people with anxiety tendencies or disorders), people are more likely to be overwhelmed by stressful situations and have a tendency to freeze or become immobile (in thoughts or actions).
21. True or False: The prefrontal cortex (PFC) is the most primitive part of the brain.
22. What is very helpful in healing the basal ganglia?
23. People who have basal ganglia problems are often experts at predicting the worst. ... They say that if they expect the worst to happen in a situation, they will never be _____. Even though they may never be _____, they are likely to die earlier.
24. Playing a game such as _____ effectively requires good PFC function.
- | | |
|-----------|-------------|
| A. Golf | C. Monopoly |
| B. Tennis | D. Chess |
25. The PFC is the part of the brain that helps you learn from _____. Good PFC function doesn't mean that you won't make _____. Rather, it generally means that you won't make the same _____ over and over.

26. Dr. Amen, regarding the PFC: Healing this part of the brain requires the development of a concept I call “_____”.
27. True or False: In order to be successful in the world, we need to have clearly defined senses of humor.
28. It’s the part of the brain that allows you to shift your attention from one thing to another, to move from idea to idea, or to see the options in life.
29. Many situations in life demand _____. A person’s ability to go with the flow, adapt to change, and deal successfully with new problems is defined through his _____.
30. True or False: Effectively managing change and transition is an essential ingredient in personal, interpersonal, and professional growth. The PFC can be of great help or hindrance to this process.
31. True or False: Healing the cingulate system of the brain involves training the mind to see where we must cling to our current beliefs.
32. Name three functions of the temporal lobes.
33. True or False: The non-dominant side of the brain is the usually the right side.
34. The sum of our stored experiences is responsible for our sense of _____ and our sense of _____ to those around us.
35. The dominant side of the brain is the _____ side for most people.
36. What allows us to communicate with other human beings and to leave a legacy of our thoughts and actions for future generations?
- 37: _____ give us both our greatest joys and our greatest sorrows.

38. Essential components of memory are integrated and stored in what part of the brain?
39. True or False: Emotional stability is heavily influenced by the non-dominant temporal lobe.
40. What is often called the “interpretive cortex”?

NOTE:

**TURN TO THE NEXT PAGE FOR THE ANSWER SHEETS FOR
PROGRESS TEST 1**

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PROGRESS TEST 1

STUDENT ANSWER SHEET

1. T F

2.

- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____

3. T F

4. T F

5. [A] _____ and _____.

- [B] 1. _____
- 2. _____
- 3. _____

- 6. 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

7. A B C D E F G H

8. _____

9. _____

10. T F

11. _____, _____

12. _____, _____

13. _____

14. _____

15. 1. _____
2. _____
3. _____
4. _____
5. _____

16. _____

17. T F

18. _____

19. _____, _____

20. T F

21. T F

22. _____

23. _____,

24. A B C D

25. _____,

26. _____

27. T F

28. _____

29. _____,

30. T F

31. T F

32. 1. _____
2. _____
3. _____

33. T F

34. _____

35. _____

36. _____

37. _____

38. _____

39. T F

40. _____

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PROGRESS TEST 1

PLEASE HOLD YOUR PROGRESS TEST. DO NOT SEND BACK TO THE SCHOOL YET! YOU MUST WAIT UNTIL ALL OF YOUR PROGRESS TESTS ARE COMPLETED.

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PROGRESS TEST 2

TEXT: *Change Your Brain, Change Your Life* by Daniel G. Amen, M.D

1. True or False: The dominant temporal lobe is usually the right.
2. _____ often is seen with left temporal lobe abnormalities, and can be expressed either externally toward others or internally in _____ thoughts about oneself.
3. Dr. Amen sees internal aggressiveness with left temporal lobe abnormalities expressed in _____.
4. Alzheimer's disease is a devastating progressive form of _____.
5. Before functional studies (such as SPECT) were available, the only way to diagnose Alzheimer's was through:
 - A. Dental records
 - B. Autopsy
 - C. X-ray
 - D. Ultra-sound
6. Which have an impact on the brain?
 - A. Caffeine
 - B. Nicotine
 - C. Alcohol
 - D. None of the above
 - E. Drugs
 - F. All of the above
7. Many people with aggressive behavior become much worse after a _____ load.
 - A. High salt
 - B. High fat
 - C. High protein
 - D. High sugar

8. Increased activity in the _____ is frequently noted in people who become “stuck” on certain thoughts or behaviors.
9. True or False: Abnormalities in the limbic system have been associated with aggressiveness.
10. Some researchers believe that people who have abnormalities in the limbic system have _____ seizures.
11. Researchers consistently find that drug and alcohol abusers can cause themselves serious brain damage. This has been demonstrated through the use of SPECT imaging.

Name four specific substances that can cause serious brain damage.

12. Whenever a person is sexually involved with another person, neurochemical changes occur in both their brains that encourage _____, emotional bonding.
13. Who is hurt the most when a casual affair ends? Why?
14. What common women’s condition is characterized by classical symptoms of emotional shading?
15. What may be said to be the “body’s computer”?
16. What may be said to be an internal state which reflects the use of an external events filter?
17. True or False: Females do not have a better sense of smell than males. If False, cite an example from nature.
18. What seems to be the most common factor with deep limbic system disruption?
 - A. Mood swings
 - B. Lack of emotional bonding
 - C. Feeling of isolation
 - D. Suicide
 - E. Depression

19. A short attention span and hyperactivity are due to problems with which brain system?
20. True or False: The PFC helps you to “use your head along with your emotions.”
21. Many people with PFC problems have trouble activating this part of the brain under _____.
22. True or False: Dr. Amen’s “One-Page Miracle” is designed to help us to focus our eyes on what is important to us , or what we want.
23. List two examples of “future-oriented thinking.”
24. True or False: Our thoughts and feelings don’t really affect our brain chemistry.
25. Love (especially romantic love) can have real physical effects, among which is the release of _____ in the basal ganglia.
26. Predicting the worst possible outcome for situations belongs to which brain system?
27. The control of mood and libido belong to which brain system?
28. Is there a part of the brain called the “dorsolateral PFC”?
29. Distractibility is considered to be a part of which disorder?
30. True or False: ODD is short for Obsessive Compulsive Disorder.
31. Explain ODD.
32. The term for persistent and recurrent maladaptive gambling behavior is _____.
33. “ _____, the inability to roll with the ups and downs of everyday life, is at the root of most _____ problems.”

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PROGRESS TEST 2

STUDENT ANSWER SHEET

1. T F
2. _____, _____
3. _____
4. _____
5. A B C D
6. A B C D E F
7. A B C D
8. _____
9. T F
10. _____
11.
 1. _____
 2. _____
 3. _____
 4. _____
12. _____

13. _____

14. _____

15. _____

16. _____

17. T F

18. A B C D E

19. _____

20. T F

21. _____

22. T F

23. _____

24. T F

25. _____

26. _____

27. _____

28. _____

29. _____

30. T F

31. _____

32. _____

33. _____,

34. _____

35. A B C D

36. A B C D E

37. A B C D E

38. A B C D E F

39. _____

40. _____

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END OF ALL PROGRESS TESTS

PLEASE NOTE:

PLEASE PHOTOCOPY YOUR ORIGINALS AND SEND ALL OF YOUR ORIGINAL PROGRESS TESTS 1, 2, 3, BACK TO THE SCHOOL FOR GRADING. STUDENTS! DO NOT PROCEED TO YOUR FINAL EXAMINATION UNTIL YOUR INSTRUCTOR HAS GIVEN YOU PERMISSION TO PROCEED.

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FINAL EXAMINATION

TEXT: *Change Your Brain, Change Your Life* by Daniel G. Amen, M.D

The Final Examination will be composed of True or False:, Multiple Choice, Fill in the Blanks, Questions and Answers, and a Matching Section. The **Answer Sheets** on which to write your answers to the Final Examination can be found at the back of each Section of your Final Examination. If you do not have enough space for your answers, please type them onto separate paper, and attach these typed pages to your **Answer Sheets**. Please **photocopy** your **Test Answer Sheets only**, and send the originals back to the school for grading. Please allow four to six weeks for grading. You may now proceed with your Final Examination.

ADVANCED NEURO BIOLOGY OF BELIEFS

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FINAL EXAMINATION SECTION 1

TRUE OR FALSE: Please circle the correct answers on your Answer Sheets **ONLY**, found on the last page of Section 1.

1. Anxiety, depression, being prone to anger, and being easily distracted have been proven by Dr. Amen to be psychological.
2. Another name for “brain wave” studies is EKG.
3. Human behavior is simpler than society’s damning labels would have us believe.
4. Anxiety and panic disorders tend to run in families.
5. Anxiety and panic disorders also tend to be related to increased activity in the left side of the basal ganglia.
6. ADD is never a genetic disorder.
7. The deep limbic system is intimately connected with bonding, smells and sexuality.
8. Problems in the deep limbic system rarely correspond directly to their functions.
9. One of the most fundamental bonds in the human universe is the mother-infant bond.
10. Tourette’s syndrome (TS) may be considered to be a problem in the deep limbic system.
11. TS runs in families.

12. It is better to praise and encourage a person suffering from ADD than it is to pressure them into increased performance in their work.
13. The Prefrontal Cortex is implicated in ADD.
14. Because of problems concerning the shifting of attention, many people with cingulate over-activity become stuck on the word *yes*.
15. About eight million people are affected by the obsessive-compulsive disorder.
16. When you're stuck, allow others to help you with the un-sticking process.
17. Don't try to convince someone else who is stuck.
18. Cooperation is a very powerful technique in helping cingulate thinkers get unstuck.
19. Two suggested parenting rules that deal with oppositional behavior are:
 - Don't do what Mom and Dad say the first time
 - Arguing is acceptable with your parents
20. Complex memories are usually a function of the right side of the brain (the non-dominant part).
21. Memory problems, for a long time, have been considered attributable to cingulate dysfunction.
22. Music and rhythm have been a psychiatric treatment for decades..
23. The limbic system has been implicated in violent or aggressive behavior patterns.
24. The temporal lobes have been implicated in violent or aggressive behavior.
25. Cingulate activity has been implicated in violent or aggressive behavior.

26. The basal ganglia have been implicated in violent or aggressive behavior.
27. Dr. Amen states that many therapeutic systems and schools of thought have for a long time concerned themselves with brain function as a part of their behavioral studies.
28. Listening to music, according to research, facilitates the lower brain functions.
29. Temporal lobe disorders are implicated in Hypergraphia.
30. People with temporal lobe abnormalities are even more paranoid than schizophrenics.

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FINAL EXAMINATION SECTION 1

STUDENT ANSWER SHEET

- | | | | | | |
|-----|---|---|-----|---|---|
| 1. | T | F | 16. | T | F |
| 2. | T | F | 17. | T | F |
| 3. | T | F | 18. | T | F |
| 4. | T | F | 19. | T | F |
| 5. | T | F | 20. | T | F |
| 6. | T | F | 21. | T | F |
| 7. | T | F | 22. | T | F |
| 8. | T | F | 23. | T | F |
| 9. | T | F | 24. | T | F |
| 10. | T | F | 25. | T | F |
| 11. | T | F | 26. | T | F |
| 12. | T | F | 27. | T | F |
| 13. | T | F | 28. | T | F |
| 14. | T | F | 29. | T | F |
| 15. | T | F | 30. | T | F |

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FINAL EXAMINATION SECTION 2

MULTIPLE CHOICE: Please circle the correct answers on your Answer Sheets **ONLY**, found on the last page of Section 2.

1. The five most important areas of interest for the author of *Change Your Brain, Change Your Life* are:
 - A. Cingulate
 - B. Prefrontal cortex
 - C. Temporal lobes
 - D. Granular ganglia
 - E. Shallow limbic system
 - F. Deep limbic system
 - G. Basal ganglia
 - A. A, B, D, E, F
 - B. A, B, C, D, E
 - C. A, B, C, F, G
 - D. A, B, E, F, G

2. According to Dr. Amen, what controls our behavior?
 - A. Our nutrition
 - B. Our emotions
 - C. Our brain
 - D. Our sex

3. The purpose of this course is the following:
 - A. To encourage people to go out and get their brains scanned
 - B. We can finally have an excuse for our “bad behavior”
 - C. To show that only those who have difficulties in their brains are destructive or harmful to society
 - D. All of the above
 - E. None of the above

4. Dr. Amen has characterized some of the PMS symptoms as the following: imagining things, and reactions which cannot be controlled. This may be said to be due to:
- A. Altered chemistry of the brain
 - B. A psychological disorder
 - C. A deep limbic system affected by estrogen
 - D. All of the above
 - E. None of the above
 - F. A and C
 - G. B
5. People can get “stuck” on certain thoughts and behaviors through an overactive:
- A. Thyroid
 - B. Basal ganglia
 - C. Adrenal glands
 - D. Cingulate system
6. Problems such as the following can be helped by SPECT studies:
- A. ADD
 - B. PMS
 - C. TS
 - D. ADHD
 - E. ODD
 - F. All of the above
7. Which are intimately connected with the deep limbic system?
- A. Sexuality
 - B. Bonding
 - C. Smells
 - D. Appetite
 - E. Emotions
 - F. Sleep
- A. A, B, and E
 - B. C, D, and F
 - C. All of the above
 - D. None of the above

8. Problems in the deep limbic system may be which of the following?
- A. Negative perception of events
 - B. Hyperactivity
 - C. Social isolation
 - D. Headaches
 - E. A and C
 - F. B and D
9. Examples of “ANTs” are which of the following?
- A. “You’re arrogant.”
 - B. “You are beautiful.”
 - C. It’s your fault.”
 - D. “I love you.”
 - E. None of the above
 - F. All of the above
 - G. A and C
 - H. B and D
10. What may be said to be examples of “guilt beating”?
- A. Blaming
 - B. “I should”
 - C. “I’m glad”
 - D. “I must”
 - E. A and B
 - F. A and C
 - G. B and D
11. Critical thinking, empathy, perseverance, and organization belong to which brain system?
- A. Cingulate
 - B. Deep limbic system
 - C. Prefrontal cortex
 - D. Basal ganglia
 - E. Temporal lobes

12. Which function belongs to the basal ganglia system?
- A. Retrieval of words
 - B. Emotional stability
 - C. Ability to see options
 - D. Enhances motivation
 - E. Problem solving
13. Tourette's Syndrome (TS) is due to problems with which brain system?
- A. Prefrontal cortex (PFC)
 - B. Cingulate
 - C. Basal ganglia
 - D. Temporal lobes
 - E. Deep limbic system
14. Which function of the prefrontal cortex system does not belong to the list?
- A. Severe motivation
 - B. Learning from experience
 - C. Impulse control
 - D. Judgment
 - E. Critical thinking
15. Which does not belong to a prefrontal prescription list?
- A. Brain-wave biofeedback training
 - B. Mozart
 - C. Audiovisual stimulation
 - D. Bringing excitement into your life
 - E. "The One-Page Miracle"
 - F. None of the above
16. Which of this list does not belong to OCD compulsions?
- A. Obsessions
 - B. Counting
 - C. Repetitive thoughts of violence
 - D. Touching
 - E. Checking
 - F. Washing
 - G. None of the above

17. Among the “Prescriptions” for cingulate problems is which?
- A. Making paradoxical requests
 - B. Killing the fortune-telling ANTS
 - C. Focusing on what you like, rather than what you don’t like
 - D. Prioritizing your projects
18. Current research on violence indicates that it is now possible to look beyond family history, head trauma, drug abuse, and seizures to:
- A. Social causes
 - B. Biological causes
 - C. Psychological causes
 - D. Lineage
 - E. A, B, and C
 - F. D
19. As with any drug abuse (or substance abuse), the longer it is abused, the greater the chance will be for permanent damage to the brain. There are several factors, though, which can further define what will happen if this substance is stopped. These are:
- A. Toxic substances included in the drug
 - B. Sensitivity to the effects of the drug
 - C. Which drug was used
 - D. How long the drug was used
 - E. All of the above
20. When a parent, child or sibling dies, there are deep limbic connections (or bonding) disrupted. What other bonding disruptions are nearly as serious?
- A. The death of an acquaintance
 - B. The death of a pet
 - C. The death of a spouse or lover
 - D. A
 - E. B and C
 - F. All of the above

21. How can anger physically affect the body?
- A. Dizziness
 - B. Heart rate
 - C. Muscle tension
 - D. Cessation of sweating in the hands
 - E. All of the above
 - F. A, B and C
22. The following are limbic bonding prescriptions:
- A. Physical contact, such as touching
 - B. Spend more physical time with your child
 - C. Keep positive people around you
 - D. None of the above
 - E. All of the above
23. What single limbic event can bring back memories with the original intensity?
- A. Déjà vu
 - B. Jamais vu
 - C. Remembering a mood you had
 - D. A particular smell
 - E. None of the above
24. Memories can be as strong as the initial events due to which change in the brain?
- A. Depression
 - B. Happy events
 - C. Chemicals that are released
 - D. All of the above
 - E. None of the above
25. Which is a prefrontal cortex disease?
- A. Schizophrenia
 - B. ADD
 - C. OPM
 - D. C
 - E. A and B

26. "Hallmarks" of ADD are the following:

- A. Seeking conflict
- B. Lack of impulsivity
- C. Impulsivity
- D. Incredibly long attention spans

- A. A and C
- B. C and D
- C. All of the above
- D. None of the above

27. Some of the self-stimulating PFC habits in ADD are:

- A. Unconsciously seeking conflict
- B. Anger
- C. Negative emotions
- D. Elation
- E. Pacifistic tendencies

- A. D and E
- B. A and B
- C. C and D
- D. A, B, and C

28. Dr. Amen gives what as a major cause of personality changes due to changes in the PFC?

- | | |
|------------------|---------------------|
| A. Age | C. Bad memory |
| B. Head injuries | D. All of the above |

29. Problems in relationships are found primarily in which brain system(s)?

- A. PFC
- B. ACG
- C. TL
- D. BG
- E. DLS

- A. All brain systems
- B. Only two brain systems
- C. A and B
- D. C and D
- E. A and E
- F. C and E

30. Problems at work may often be attributed to:

- | | |
|-----------------|---------------------|
| A. Depression | D. A and B |
| B. Anxiety | E. All of the above |
| C. KFC problems | |

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FINAL EXAMINATION SECTION 2

STUDENT ANSWER SHEET

1. **A B C D**
2. **A B C D**
3. **A B C D E**
4. **A B C D E F G**
5. **A B C D**
6. **A B C D E F**
7. **A B C D**
8. **A B C D E F**
9. **A B C D E F G H**
10. **A B C D E F G**
11. **A B C D E**
12. **A B C D E**
13. **A B C D E**
14. **A B C D E**
15. **A B C D E F**
16. **A B C D E F G**

- 17. A B C D
- 18. A B C D E F
- 19. A B C D E
- 20. A B C D E F
- 21. A B C D E F
- 22. A B C D E
- 23. A B C D E
- 24. A B C D E
- 25. A B C D E
- 26. A B C D
- 27. A B C D
- 28. A B C D E
- 29. A B C D E F
- 30. A B C D E

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FINAL EXAMINATION SECTION 3

FILL IN THE BLANKS: Please fill in the blanks on your Answer Sheets ONLY, found on the last page of Section 3.

1. Underneath the temples and behind the eyes is the part of the brain involved with memory, understanding language, facial expression, and temper control, called the _____.
2. At the center of the brain is the bonding and mood control center called the _____.
3. Running longitudinally through the middle of the frontal lobes is the part of the brain which Dr. Amen calls your “gear shifter.” It allows you to shift attention from thought to thought, and between behaviors. It is called the _____.
4. Structures deep within the brain, controlling the body’s idling speed, are the _____.
5. At the front of the brain is your “supervisor”, the part of the brain that helps you stay focused, make plans, control impulses, and make good (or bad) decisions. It is called the _____.
6. _____ is normally the most active part of the brain.
7. Through observation, Dr. Amen and his colleagues have seen that problems in the _____ often correspond with a tendency toward significant irritability, even violence.
8. Oftentimes, when standard psychotherapy is unsuccessful, Dr. Amen looks directly at the _____.

9. The seat of feelings and behavior is the _____.
10. Dr. Amen also calls the brain the _____.
11. An "I don't care" attitude about life and work is an indication of a lack of motivation. This belongs to the part of the brain called the _____.
12. Parents often feel intensely sad and bereft when children leave home. This is called the _____.
13. People who are _____ often do not feel like being around others, so they frequently isolate themselves.
14. Teaching yourself to control and direct _____ in a positive way is one of the most effective ways to feel better.
15. It can be shown, especially through _____ tests that your body reacts to your thoughts.
16. Automatic negative thoughts multiply, like invading _____ at a picnic.
17. We generally believe that the thoughts that go through our minds are _____. That is why we have trouble talking back to them if we write them down. Thoughts sometimes lie to you!
18. Spending a lot of time with negative people is like picking up red _____. They will hang out with your own _____ and mate!
19. _____ is essential to life. _____ is critical to life.
20. What occurs in the _____ is the integration of feelings, thoughts, and movements. Another _____ function is essential to handwriting and motor coordination. It is the shifting and smoothing of fine motor behavior.
21. The syndrome responsible for motor and vocal "tics" is called _____.

22. One of the main exercises that Dr. Amen teaches to his patients who have panic disorders is _____.
23. Found within your ability to focus your concentration is a “basal ganglia soothing” power called _____ - _____,
24. Most of Dr. Amen’s discussion about ADD is focused on problems in the _____.
25. Argumentativeness, OCD, and worrying all belong to problems in the _____ system.
26. Where OCD is an internalizing behavior, _____ is an externalizing behavior. Both of these are often seen in the relationship of parent and child.
27. Reverse _____ works with cingulate folks. But you need to be sly about it.
28. “You probably don’t want to help me with this” is called a _____.
29. Dr. Amen states that it is essential that parents assert their ultimate authority over _____ children.
30. In getting “unstuck”, _____ can be very helpful in calming worries and increasing cognitive flexibility.

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FINAL EXAMINATION SECTION 3

STUDENT ANSWER SHEET

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____

17. _____
18. _____,
19. _____,
20. _____,
21. _____
22. _____
23. _____ - _____
24. _____
25. _____
26. _____
27. _____
28. _____
29. _____
30. _____

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FINAL EXAMINATION SECTION 4

QUESTIONS & ANSWERS: Please answer all questions in complete sentence format. **TYPE** your prose answers on **SEPARATE** paper and **TITLE** all pages “FINAL EXAMINATION: SECTION 4.” Please match your answer and question numbers in sequential order and then attach them to Section 4 before you send in your Final Examination.

1. Below is a list of acronyms. Please expand these to their full wording.

1. PMS
2. ADD
3. ADHD
4. OCD
5. ODD
6. TS
7. KS
8. PD
9. PTSD

10. SPECT
11. MRI
12. CAT
13. PET
14. EEG
15. OPM

2. [A] What is one of the key principles that Dr. Amen believes is behind the success of AA (Alcoholics Anonymous)?
[B] Why?

3. If your children are not interested in spending very much time with their parents,
 - [A] What may this be due to?
 - [B] What may be done to help to fix this?
4.
 - [A] Will exercise help your limbic system?
 - [B] If so, why?
5. Write down:
 - [A] The steps for killing the “fortune-telling ANTs”
 - [B] What is Dr. Amen’s conclusion regarding these steps?
 - [C] What brain system does this relate to?
6.
 - [A] What does “Learn to breathe properly” mean?
 - [B] List the steps given to do just that.
 - [C] What questions might you ask yourself about your breathing?
 - [D] And, finally, why is this so important?
7. A valuable prescription for fear given by Dr. Amen taps into a natural “basal ganglia soothing” power source that most people do not even know exists.
 - [A] What does he refer to?
 - [B] What two tools does this prescription use?
 - [C] Finally, list the steps to this prescription.

If you find that this particular prescription is helpful, please write it down for yourself to use in the future for anxiety, anger, or fear, or for what Dr. Amen says to “cool down your basal ganglia.”

8.
 - [A] What does assertiveness mean?
 - [B] Give the five rules.
 - [C] What are Dr. Amen’s important comments in reference to this prescription?

9. Dr. Amen has found that the one thing successful children and adults have in common is a sense of personal responsibility and clear goals. Follow the instructions that Dr. Amen has given, create your own "One-Page Miracle", and submit it with this exam.
10. Why does Dr. Amen collect penguins?
11. Prefrontal cortex prescriptions have to do with changing your behavior.
 - [A] What about the behavior of others (especially those with ADD)?
 - [B] What can you do to help another who knowingly or unknowingly upsets you? List some strategies.
12. In his discussion on cingulate problems, Dr. Amen refers to getting "stuck."
 - [A] What does he say about overcoming this problem?
 - [B] List several points, and the "CG PRESCRIPTION" for them.
13. Dr. Amen mentions two brain systems that can be helped by music.
 - [A] Name them
 - [B] Explain how this works to help the brain systems in question.
14.
 - [A] How can memories cause a marriage to fail?
 - [B] Explain how this can be. Use the example cited by Dr. Amen.
15. According to Dr. Amen, the images we store in our memory are our most precious treasures. Why?
16. Name each of the eight ADD characteristics listed by Dr. Amen, and then give a short explanation of each one.
17.
 - [A] What type of injury can alter a person's character and ability to learn?
 - [B] Explain one of the examples given by Dr. Amen.
 - [C] What part of the brain is involved?
 - [D] Why is it so hard to interview a patient concerning this injury?

18. [A] What goal-setting exercise does Dr. Amen present to the reader concerning personal goals?
[B] What is Dr. Amen's own term for this, and his reason for it?
[C] Do you plan to use this tool for yourself?
19. [A] What is the first and most important thing about controlling ANTs?
[B] What is the system concerned whenever ANTs are in the picture?
[C] What is the process involved in controlling ANTs?
[D] Why control them?
20. What is your ANT population?
[A] Write out four examples of what you perceive to be your own ANT problems.
[B] Write down what it is that these ANTs are doing to you.
[C] How would you train yourself to "Feed Your ANTeater"? (Please review the section on this before answering.)
21. [A] How can exercise heal the deep limbic system?
[B] What is exercise a good alternative for, and
[C] Why is it an alternative?
22. [A] What types of substance abuse often result in violence and aggression?
[B] What parts of the brain are affected in order to cause this behavior?
[C] Addictions and potential violence are made worse due to which brain systems?
[D] What two substances may be involved in decision-making and provocative behaviors which can lead to high-risk situations?
[E] How can these substances affect the individual?
[F] What is a very frequent news item, which indicates how such behavior affects everyone around the abuser?

23. [A] Pick three relational traits from each of the five brain systems mentioned by Dr. Amen, and list them according to which brain system they belong to, and indicate which they are:
- 1) positive,
 - 2) negative, or
 - 3) what you know to be an observation from your partner concerning yourself.

Note: make sure that you choose one negative and one positive trait for yourself. For the third trait, make sure that you understand that statements from partners reflect how they see you. This is not about how you see them.

- [B] Relate them to your own life and relationship(s), and also consider cause and effect. Who is responsible for what?

Note: this requires careful thought about first, oneself, and second, about one's partner in the relationship, and third, about how what one does affects the other.

- [C] For each trait listed, pick one of Dr. Amen's relational prescriptions that you feel would help you with that particular relational trait, even if it is a positive trait. Can you improve on it?

Note: any traits you list probably affect your partner. Is the effect good, or is it bad? Or is it good only for you?

How you see it may not be how they see it, nor will it indicate whether or not it is helping either of you, or the relationship.

Remember that these relational traits are involved in all interactions and relationships.

- [D] How would you go about solving your own problems through recognition of your traits and your partner's observations?

- [E] Which of the prescriptions you list are you confident about for yourself? This means confidence in a prescription solution

which you pick for yourself, and which could help both you and your partner.

Note: this means one which would be worth doing in your life. Again, this does not mean listing the negative traits of your partner. It means listing your own traits, and then your own prescription solutions.

Remember that solutions (prescriptions) that you pick are those that can, or do directly affect (or can help) not only you, but those you interact with. Choose carefully, and thoughtfully.

24. Why are men more reluctant than women when it comes to seeking help for a behavioral problem?
25. In a study published in 1994, there were three psychiatric illnesses noted, from which nearly half of the population suffers. What are those three illnesses?

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FINAL EXAMINATION SECTION 5

MIX AND MATCH: For each item in column 2, please fill in the number from column 1 which corresponds to its proper definition, meaning or quotation

Please make a copy of Section 5 and write your answers to the test on that copy. DO NOT WRITE YOUR ANSWERS ON THE ORIGINAL.

- | | | |
|------------------------------|-------|---|
| 1. ADD | _____ | part of the prefrontal cortex |
| 2. Brain | _____ | part of the deep limbic system of the brain |
| 3. Sense of smell | _____ | dyslexia |
| 4. Hypothalamus | _____ | “red ant” |
| 5. Manic depressive disorder | _____ | jamais vu |
| 6. ANT | _____ | anorexia |
| 7. Diaphragmatic | _____ | disorganization |
| 8. Dorsolateral PFC | _____ | “reverse psychology” |
| 9. “hallmark” of ADD | _____ | cingulate gyrus |
| 10. “hallmark” of ADD | _____ | amnesia |
| 11. Psychotic disorder | _____ | planning and goal-setting |

- | | | | |
|-----|--|-------|--|
| 12. | Temporal lobe memory disorder | _____ | SPECT |
| 13. | “future-oriented thinking” | _____ | schizophrenia |
| 14. | Eating disorder | _____ | temporal lobes |
| 15. | Paradoxical suggestions | _____ | is usually a genetic disorder |
| 16. | Underachievement in reading | _____ | body’s computer |
| 17. | Opposite of déjà vu | _____ | basal ganglia |
| 18. | Single photon emission computed tomography | _____ | prefrontal cortex |
| 19. | At the center of the brain | _____ | short attention span |
| 20. | Large structures deep within the brain | _____ | deep limbic system |
| 21. | Front tip of the brain | _____ | automatic negative thoughts |
| 22. | Runs longitudinally through the middle part of the frontal lobes | _____ | breathing slowly and deeply and mostly with your belly |
| 23. | Underneath the temples and behind the eyes | _____ | most active part of the brain |
| 24. | Back of the brain | _____ | delusional thinking and bizarre behavior |
| 25. | Fortune-telling | _____ | goes directly to its processing center in the brain |

