

Name: _____

PSC 126, Health Psychology
Instructor: Capitano

Winter 2007
Exam 1

BE SURE THAT ALL MULTIPLE CHOICE QUESTIONS ARE ANSWERED ON YOUR SCANTRON FORM!!

Part I. Multiple Choice: Indicate on the Scantron form the single best choice for the answer (1 point ea.).

1. Annie goes to the doctor because she is not feeling well, and complains of each of the following. Which complaint can the doctor identify as a sign?
 - a. fever
 - b. headache
 - c. body aches
 - d. nausea

2. A health psychologist would be likely to be involved with all but which one of the following:
 - a. designing a program to encourage people to exercise more
 - b. helping an AIDS patient schedule her time to insure she takes her medications
 - c. studying how coping with stress is related to physical health
 - d. counseling a patient with obsessive-compulsive disorder to help him reduce his hand-washing behavior

3. We discussed that 'adherence' *increases* when
 - a. the patient starts to feel better.
 - b. the patient has a negative attitude toward the health care system.
 - c. the patient believes that the treatment prescribed is effective.
 - d. both a and c.

4. Studies in the 1960s on ulcer formation in animals showed that stress can result in ulcers. The recent finding that *Helicobacter pylori* is a pathogen associated with ulcers
 - a. proves that the biomedical model is correct.
 - b. invalidates the earlier animal research.
 - c. suggests antibiotics could be used to treat ulcers.
 - d. both a) and b).

5. What has been the trend in the last few years regarding the percentage of Americans who have no health insurance?
 - a. The percentage has remained about the same.
 - b. The percentage has gone down.
 - c. The percentage has gone up.
 - d. There are no trends; government programs insure everyone has access to health insurance.

6. Systems theory assumes a principle of hierarchical organization. This implies that
 - a. changes in any one level will affect all other levels in the system.
 - b. only changes in the highest level will affect all levels of the system.
 - c. changes in one level will affect only lower levels of the system.
 - d. changes in intermediate levels have the most profound effects on a system.

7. Which of the following sequences goes from the smallest unit to the largest unit?
- triplet, base, gene, chromosome
 - base, triplet, gene, chromosome
 - triplet, polypeptide, amino acid, protein
 - codon, anti-codon, base, chromosome
8. Enzymes are proteins that:
- actively inhibit many biochemical processes.
 - are the fundamental building blocks of body tissue.
 - cause many biochemical processes to occur more efficiently.
 - are produced in the bone marrow.
9. The process of the DNA code being copied to messenger RNA is called:
- replication
 - transcription
 - translation
 - sequential encoding
10. The triplet code on a messenger RNA molecule is called a _____, while the triplet code on a transfer RNA code is called a _____.
- repressor sequence; promoter sequence
 - promoter sequence; repressor sequence
 - anti-codon; codon
 - codon; anti-codon
11. A protein binds to the promoter region preceding a gene on the DNA. What will happen?
- probably nothing, since promoter regions are unrelated to genes
 - the process of transcription will be initiated
 - the process of transcription will be inhibited
 - either b or c, depending on whether the protein is an activator or repressor protein
12. A _____ mutation results in the substitution of a base pair leading to production of an incorrect amino acid.
- frameshift
 - downshift
 - nonsense
 - missense
13. A quality of the immune system that is likely to cause problems for organ transplant patients is the fact that the immune system:
- recognizes self from non-self.
 - eliminates infectious agents.
 - minimizes damage from microbes.
 - initially has a slow response to pathogens.
14. Which of the following is true of 'innate' immunity?
- the major cell type is the lymphocyte
 - complement proteins are involved
 - innate immune responses are specific to specific antigens
 - innate immune responses take time to develop
15. In cell-mediated immunity, neutralization of a microbe is accomplished principally by
- cytotoxic T-lymphocytes.
 - complement.
 - antibodies.
 - neutrophils.

16. Which of the following is true of primary lymphoid organs:
- they are the places where lymphocytes mature
 - they include lymph nodes
 - they are involved in detecting antigen in the blood
 - they include the appendix
17. An animal has never been exposed to either antigen A or B. At time 1, you immunize it with antigen A. Three months later, you immunize the same animal with antigens A and B. Two weeks later, you measure the amounts of antibody to antigen A and to antigen B, and you find:
- exactly the same amounts of antibody to each antigen
 - more antibody to antigen A than to antigen B
 - more antibody to antigen B than to antigen A
 - can't tell from this example, without knowing what the antigens are
18. Physician Edward Jenner noticed in the late 1700s that _____
- the rate of measles had started to decline.
 - women who milked cows rarely got smallpox.
 - neurotic women sometimes experienced numbness below the wrist.
 - bleeding a patient often made him/her better.
19. According to the graph presented in lecture, the immune response to a novel virus involves the activation (increased responsiveness) of the following in chronological order:
- natural killer cells, cytotoxic T-lymphocytes, antibody
 - cytotoxic T-lymphocytes, natural killer cells, antibody
 - natural killer cells, antibody, cytotoxic T-lymphocytes
 - antibody, natural killer cells, cytotoxic T-lymphocytes
20. Placebos have been found to be effective in treating _____ of diseases.
- 10-25%
 - 30-50%
 - 60-90%
 - 99%
21. The placebo effect is more often found:
- among women, compared to men.
 - among older patients, compared to younger ones.
 - when it's given in a formal, medical setting, rather than an informal setting.
 - when the doctor has an arrogant, uninvolved attitude, rather than a warm attitude.
22. The idea that one's physiological characteristics that are related to health, may also be associated with certain personality characteristics, can be traced to the:
- Stone Age
 - ancient Greeks
 - Middle Ages
 - Renaissance
23. Health psychologists interested in issues related to quality of life are likely to be most interested in which of the following?
- prevalence of acute illnesses in the population
 - mortality statistics
 - morbidity statistics
 - none of the above

24. Dr. Yee is looking at the medical histories taken of 30 women who have symptoms of a chronic illness. She is interested in identifying factors in these histories that these patients share that might have contributed to the development of their current illness. This is an example of a(n):
- a. experiment.
 - b. prospective research design.
 - c. retrospective research design.
 - d. none of the above.
25. According to your text, over the past 25 years Americans' consumption of alcohol has _____ and exercise has _____.
- a. decreased; increased
 - b. increased; decreased
 - c. remain unchanged; decreased
 - d. remain unchanged; increased
26. Which of the following is an example of "behavioral immunization"?
- a. Getting smokers to stop by using one-on-one counseling.
 - b. Getting overweight people to reduce their food consumption through joining organizations like Weight Watchers.
 - c. Presenting an anti-drug program to third graders.
 - d. All of these are examples of behavioral immunization.
27. Improvements in the technology of pain control have led to
- a. increased use of improved pharmacological pain-control techniques.
 - b. a shift in the responsibility for pain control from the practitioner to the patient.
 - c. increased acceptance of co-management of pain by the practitioner and the patient.
 - d. state-of-the-art treatments for chronic pain becoming increasingly available at local clinics and hospitals.
28. Most health psychologists work in
- a. private practice.
 - b. hospitals and clinics.
 - c. universities and medical schools.
 - d. governmental agencies.
29. According to your text, all cancers result most directly from:
- a. immunocompromise.
 - b. a dysfunction in messenger RNA.
 - c. a dysfunction in transfer RNA.
 - d. a dysfunction in DNA.
30. In general, which of the following is true regarding cancer?
- a. Married people develop fewer cancers than single people.
 - b. No difference in cancer rates has been found for well-nourished and malnourished people.
 - c. Culture and ethnicity are unrelated to cancer rates.
 - d. Women are more likely to get prostate cancer than men.
31. Psychological stress appears to adversely affect the ability of _____ cells to destroy tumors. The activity of this type of cell is also important in survival rates, especially for early breast cancer.
- a. B
 - b. natural killer
 - c. T
 - d. phagocytic

32. The consequence of receiving chemotherapy in the same place by the same person under the same circumstances is
- a. conditioned nausea.
 - b. conditioned immune suppression.
 - c. impaired long-term compliance.
 - d. all of the above.
33. Exons are
- a. polypeptides.
 - b. the coding regions of a gene.
 - c. the same as promoter regions.
 - d. the name given to a complete mRNA molecule.
34. Transmission of microbes that occurs as the result of an agent (such as a mosquito) picking up a microbe, changing it into a form that will grow in the human body and then passing on the disease to a human, is called
- a. direct transmission.
 - b. biological transmission.
 - c. indirect transmission.
 - d. mechanical transmission.
35. A focal infection:
- a. is confined to a particular area, but sends toxins to other parts of the body.
 - b. remains at a particular area.
 - c. is the same as a secondary infection.
 - d. is caused only by viruses, never bacteria.
36. Autoimmunity:
- a. involves the progressive, chronic enlargement of lymphatic tissue.
 - b. is a viral disorder marked by an unusually large number of monocytes.
 - c. is acquired through measures such as vaccination.
 - d. is a condition in which a specific humoral or cell-mediated immune response attacks the body's own tissues.
37. Rita is trained in traditional nursing and also has received special training in primary care. She is affiliated with a group of private practice physicians, sees her own patients, and provides routine medical care, prescribes treatment, and attends to chronically ill and walk-in patients with a myriad of disorders. Rita is a(n):
- a. physician.
 - b. nurse-practitioner.
 - c. physician's assistant.
 - d. clinical nurse specialist.
38. Most patients
- a. are good judges of the technical quality of the medical care they receive.
 - b. consider medical treatment to be of high technical quality if the provider is nice.
 - c. feel that the technical quality of medical care is somewhat more important than the manner in which it is provided.
 - d. all of the above.

39. A 'colleague' orientation is most likely to develop
- a. when providers include their patients as active partners in their health and medical care.
 - b. among providers affiliated with a prepaid health care plan.
 - c. among private providers who are paid directly for fee-for-service care.
 - d. among providers who are committed to providing a high quality of technical care.
40. The presence of a placebo effect is reflected in the importance placed by the medical community on
- a. double-blind studies.
 - b. prospective studies.
 - c. retrospective studies.
 - d. drug studies.

Part II. Extra credit: Answer the following question correctly and get a free point! **ANSWER THIS QUESTION ON THE SCANTRON FORM!!**

41. According to base-pairing rules in DNA, adenine will only pair with
- a. itself.
 - b. cytosine.
 - c. guanine.
 - d. thymine.

Name: _____

BE SURE YOUR NAME IS ON THIS PAGE!!

Part III. Fill-ins: In the space provided, write the word or phrase that best completes each sentence (2 points each).

42. _____ refers to the origins or causes of disease.
43. According to Freud, _____ is a condition that is manifested as a physical disturbance, cannot be medically explained, and arises from unconscious conflict.
44. _____ is a genetic disorder resulting from an error in the synthesis of hemoglobin.
45. _____ is the cell of the immune system that produces antibodies.
46. _____ refers to a phosphate molecule, nitrogenous base, and sugar (such as deoxyribose)

IMPORTANT NOTE: This exam will be handed back in class after it has been corrected, by having it available in alphabetical piles. Your score will appear on THIS page, and will not be visible to other students. If you would rather pick this exam up in person from the TA, please indicate this by putting a check mark on this line: _____