

# Chapter 1

## Introduction

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### INTRODUCTION

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Chapter 1 offers an overview of the developmental perspective, outlines basic concepts, and identifies various research methods. Several important topics are presented:

- The four goals of developmental psychologists. We will look at how psychologists try to describe, explain, predict, and control the developmental process.
- Frameworks for organizing information about human development. We will examine human development from the standpoints of major domains, processes, context, and timing.
- Urie Bronfenbrenner’s ecological approach to development. This approach links the individual to social and cultural forces and shows connections between these forces and the individual.
- Cultural influences on human development. This section looks at the impact that culture has in shaping our conception of the life cycle.
- Historical “areas of concern” among developmentalists. This section highlights the critical questions of the past as well as their continuing influence on contemporary research.
- The scientific method. This section describes the scientific method and its importance for the field of development.
- Research methodology. This section presents detailed descriptions of the various approaches used by scientists to study human nature.
- Ethical considerations. A framework is presented that highlights critical aspects of conducting research on human subjects.



5. Explain the importance of *nature/nurture* interactions in terms of growth, maturation, and learning.

6. Describe Bronfenbrenner's *bio-ecological approach* toward understanding human development. Name the five levels of environmental influence on human development as presented in this model and the features of each.

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7. Explain how timing of developmental events affects individuals or cohorts.

Normative age-graded influences

Normative history-graded influences

Nonnormative life events

8. Describe how age, as a master status, operates directly and indirectly on individuals.

9. Define *emerging adulthood*.

10. Name and describe the five steps employed in the scientific method.

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11. Describe the following research methods, and identify the advantages and disadvantages of each.

longitudinal

cross-sectional

sequential

experimental

12. Summarize the following terms as they relate to the *experimental method*, and provide an example of each.

independent variable

extraneous variable

dependent variable

control group

experimental group

13. Define the main tasks of the *case study* and *social survey* methods of research design, and critically examine the advantages and disadvantages of each.

14. Explain the significance of *random sampling*

15. Explain the *naturalistic observation method* and define *time sampling* and *event sampling*. List the advantages and disadvantages of each.

16. Describe *cross-cultural studies*, and give an example of this type of research. List its advantages and limitations.

17. Discuss what two guidelines must be followed when doing research on human subjects, and why.

## WEB SITES

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The following Web sites deal with some of the major concepts and issues presented in Chapter 1. Additional resources can be found at the text's Web site at <http://www.mhhe.com/crandell8>.

APA Division 7: Developmental Psychology

<http://www.apa.org/about/division/div7.html>

Center for Cross Cultural Research

<http://www.ac.wvu.edu/~culture/>

The American Psychological Society

<http://www.psychologicalscience.org/>

International Association for Cross Cultural Psychology

<http://www.iaccp.org/>

Galaxy: Social Sciences

<http://www.galaxy.com/galaxy/Social-Sciences/Psychology/>

Society for Research in Child Development (SRCD)

<http://www.srcd.org/>

Society for the Study of Ethnic Minority Issues

<http://www.apa.org/divisions/div45/>

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SELF-TESTS

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**Matching**

Match the key terms with their definition

- |                             |                                 |                                         |
|-----------------------------|---------------------------------|-----------------------------------------|
| a. age cohort               | q. emotional-social development | gg. mesosystem                          |
| b. age strata               | r. event sampling               | hh. microsystem                         |
| c. case-study method        | s. exosystem                    | ii. naturalistic observation            |
| d. chronosystem             | t. experiment                   | jj. nonnormative life events            |
| e. cognitive development    | u. experimental group           | kk. normative age-graded influences     |
| f. confounding              | v. experimental method          | ll. normative history-graded influences |
| g. control group            | w. extraneous variables         | mm. physical development                |
| h. correlation coefficient  | x. growth                       | nn. random sampling                     |
| i. cross-cultural method    | y. hypothesis                   | oo. right to privacy                    |
| j. cross-sectional design   | z. independent variable         | pp. scientific method                   |
| k. culture                  | aa. informed consent            | qq. sequential methods                  |
| l. dependent variable       | bb. learning                    | rr. selective attrition                 |
| m. development              | cc. longitudinal method         | ss. social norms                        |
| n. developmental psychology | dd. macrosystem                 | tt. social survey method                |
| o. ecological approach      | ee. master status               | uu. time sampling                       |
| p. emerging adulthood       | ff. maturation                  |                                         |

1. \_\_\_\_ a group of persons born in the same time interval
2. \_\_\_\_ a method used in studying the incidence of specific behaviors or attitudes in a large population of people
3. \_\_\_\_ a neutral standard against which the changes in the experimental groups can be measured
4. \_\_\_\_ a research approach in which scientists study the same individuals at different points in their lives
5. \_\_\_\_ a sampling technique in which each member of the population sampled has an equal probability of being chosen
6. \_\_\_\_ a series of steps we follow that allow us and others to be clear about what we studied, how we studied it, and our conclusions
7. \_\_\_\_ a special type of longitudinal study focusing on a single individual rather than a group of subjects
8. \_\_\_\_ a study in which the investigator manipulates one or more variables and measures the resulting changes in the other variables to attempt to determine the cause of a specific behavior
9. \_\_\_\_ a tentative proposition that can be tested
10. \_\_\_\_ an approach proposing that the study of developmental influences must include the person's interaction with the environment, the person's changing physical and social settings, the relationship among those settings, and how the entire process is affected by the society in which the settings are embedded

11. \_\_\_\_ an environment that is “external” to the developing person
12. \_\_\_\_ assures participants that the information they share or behaviors that are recorded will be kept confidential
13. \_\_\_\_ expectations that specify what constitutes appropriate and inappropriate behavior for individuals at various periods in the life span
14. \_\_\_\_ governs entry to many other statuses and makes its own distinct imprint on them
15. \_\_\_\_ investigates development by simultaneously comparing different age groups
16. \_\_\_\_ involves counting the occurrence of some specific behavior over a systematically spaced interval of time
17. \_\_\_\_ means that those subjects who drop out tend to be different from the subjects who remain in a study
18. \_\_\_\_ one of the most rigorously objective techniques available to science
19. \_\_\_\_ requires the researcher to obtain written consent to participate from each subject; this consent must be voluntary
20. \_\_\_\_ social layers within societies that are based on time periods in life
21. \_\_\_\_ some measure of the subject’s behavior
22. \_\_\_\_ takes place through metabolic processes from within; consequently, one of the most noticeable features of early development is the increase in size that occurs with changing age
23. \_\_\_\_ that branch of psychology that deals with how individuals change with time while remaining in some respects the same
24. \_\_\_\_ the factor that is manipulated in an experiment
25. \_\_\_\_ the group in which a researcher manipulates the independent variable or administers a treatment
26. \_\_\_\_ the interrelationships among the various settings in which the developing person is immersed
27. \_\_\_\_ the more or less automatic unfolding of biological potential in a set, irreversible sequence
28. \_\_\_\_ the more or less permanent modification in behavior that results from the individual’s experience in the environment across the entire life span
29. \_\_\_\_ the numerical expression of the degree or extent of relationship between two variables or conditions
30. \_\_\_\_ the orderly and sequential changes that occur with the passage of time as an organism moves from conception to death
31. \_\_\_\_ the overarching cultural patterns of a society that find expression in family, educational, economic, political, and religious institutions
32. \_\_\_\_ the social heritage of a people—those learned patterns for thinking, feeling, and acting that are transmitted from one generation to the next
33. \_\_\_\_ those changes that concern an individual’s personality, emotions, and relationships with others
34. \_\_\_\_ those changes that occur in a person’s body, including changes in weight and height; in the brain, heart and other organ structures and processes; and in skeletal, muscular, and neurological features that affect motor skills
35. \_\_\_\_ those changes that occur in mental activity, including sensation, perception, memory, thought, reasoning, and language
36. \_\_\_\_ those factors that may confound the outcome of the study, such as the age and gender of the subjects, the time of day the study is conducted, the educational attainment of the subjects, and so on
37. \_\_\_\_ when researchers compare data from two or more societies and cultures

38. \_\_\_\_\_ when researchers intensively watch and record behavior as it occurs but are careful not to disturb or affect the events under investigation
39. \_\_\_\_\_ research methods that involve measuring more than one cohort over time
40. \_\_\_\_\_ changes in an individual's social environment that are associated with his or her change in age
41. \_\_\_\_\_ historical events and trends that impact an age cohort's developmental experience
42. \_\_\_\_\_ a technique of recording actions observed at particular time intervals
43. \_\_\_\_\_ network of day-to-day relationships
44. \_\_\_\_\_ a new stage between adolescence and adulthood
45. \_\_\_\_\_ the dimension of time added to the ecological model
46. \_\_\_\_\_ mingled elements in research that result in an inability to determine effect
47. \_\_\_\_\_ unforeseen or unexpected influences on a person's development

### Multiple Choice

Circle the letter of the response that best completes or answers each of the following statements and questions.

#### *Factual Questions*

1. Psychologists who study orderly and sequential changes that occur in behavior with the passage of time are studying
  - a. growth
  - b. maturation
  - c. development
  - d. learning
  
2. The four major issues of developmental psychology are describing, explaining, predicting, and \_\_\_\_\_ developmental changes.
  - a. modifying
  - b. redirecting
  - c. changing
  - d. controlling
  
3. Which of the following domains of development entails changes in weight, height, organ structures and processes, and skeletal, muscular, and neurological features?
  - a. cognitive development
  - b. physical development
  - c. psychosocial development
  - d. neurological development
  
4. Those changes that occur in mental activity, including sensation, perception, memory, thought, reasoning, and language, are studied in the field of \_\_\_\_\_ development.
  - a. cognitive
  - b. physical
  - c. psychosocial
  - d. evolutionary
  
5. Those changes that concern a person's personality, emotions, and relationships with others are known as \_\_\_\_\_ development.
  - a. cognitive
  - b. conative
  - c. emotional
  - d. evolutionary
  
6. Developmental psychologists studying psychosocial development assume
  - a. everyone passes through a rite of passage
  - b. physical, cognitive, and emotional-social factors are not intertwined
  - c. physical, cognitive, and emotional-social factors are intertwined
  - d. none of the above

7. When an organism takes in a variety of substances, breaks them down into their chemical components, and then reassembles them into new materials, resulting in a change of size, this is called
- metabolic change
  - mental change
  - growth
  - biochemical change
8. When a particular biological potential, such as the ability to walk, automatically unfolds in a set, irreversible sequence, we refer to this process as
- growth
  - maturation
  - learning
  - development
9. The more or less permanent modification in behavior that results from the individual's experience in the environment is called
- cognitive overload
  - maturation
  - growth
  - learning
10. An advocate of the ecological approach believes that the study of developmental influences must include
- a person's interaction with current technology
  - the individual's changing physical and social settings
  - how the process is analyzed by scientists
  - all of the above
11. Which of the following consists of the interrelationships among the various settings in which the developing person is immersed?
- microsystem
  - mesosystem
  - exosystem
  - macrosystem
12. Which ecological system includes the social structures that directly or indirectly affect a person's life, such as school, work, the media, government agencies, and various social networks?
- microsystem
  - mesosystem
  - exosystem
  - macrosystem
13. An example of a normative age-graded influence on development would be an adolescent's
- experiencing a sudden religious conversion
  - dropping out of school in 1930
  - developing an interest in biology
  - entering puberty

14. Each generation's members experience certain decisive economic, social, political, and military events at similar junctures in life; these are referred to as
- normative age-graded influences
  - normative history-graded influences
  - nonnormative life events
  - normative life events
15. Unique turning points at which people change some direction in their lives (such as divorce, winning the lottery, or being severely injured in an accident) are called
- normative age-graded influences
  - normative history-graded influences
  - nonnormative life events
  - normative life events
16. When a developmental psychologist says that age is a master status, she means that
- roles are assigned independently of the person's age
  - age governs entry to many other statuses over the life span
  - as a person ages, he or she is afforded a higher status
  - young men are assigned to the military in some cultures
17. A person's \_\_\_\_\_ functions as a reference point that allows people to orient themselves in terms of what or where they are within various social networks.
- educational status
  - social status
  - age
  - financial status
18. The social heritage of a people (those learned patterns for thinking, feeling, and acting that are transmitted from one generation to the next) is called
- the life cycle
  - culture
  - social lifestyle
  - social consequence
19. All societies are divided into social layers that are based on time periods in life, which psychologists call
- hierarchies
  - layers
  - age strata
  - strata organization
20. It seems that a new stage has emerged between adolescence and adulthood called:
- the juvenile
  - emerging adulthood
  - youthhood
  - old-youngish

21. Which of the following was not an area of concern of early developmentalists?
  - a. cognitive development
  - b. behavior issues
  - c. pathological development
  - d. role of the self
  
22. Which of the following is not considered a step in the scientific method?
  - a. formulating a hypothesis
  - b. testing the hypothesis
  - c. conducting a literature review
  - d. disseminating the findings of the study to the scientific community
  
23. A hypothesis refers to a(n)
  - a. prediction that can be tested by gathering appropriate information
  - b. controlled lab experiment
  - c. explanation of experimental data
  - d. test to determine whether a prediction is correct
  
24. A benefit of the longitudinal method is that:
  - a. the researcher studies the same sample over the same period of time
  - b. the researcher gains insight into the routes by which people turn out similarly or differently in adulthood
  - c. a variety of social or economic events enters the picture, which makes this more interesting for the researchers
  - d. some people drop out of the study, so the researcher has fewer subjects to work with
  
25. In the cross-sectional method
  - a. the same group of subjects is repeatedly given the same test over a 20-year period
  - b. surveys are administered to samples of people from around the country
  - c. different groups and ages of subjects are observed at the same time
  - d. the behavior of subjects in a laboratory environment is compared with their behavior in their natural setting
  
26. One of the major criticisms of cross-sectional studies is that
  - a. they are costly and time consuming to conduct
  - b. it is difficult to keep in contact with all the subjects
  - c. it is difficult to control the environment of the subjects between testing periods
  - d. differences in social environment, intelligence, or diet make it difficult to compare groups
  
27. The sequential method approach
  - a. relies mainly on the use of surveys
  - b. always measures cohorts in 10-year intervals
  - c. involves measuring more than one cohort over time
  - d. is used to compare different individuals sequentially
  
28. In the experimental design, the independent variable is
  - a. a measure of extraneous behavior
  - b. the variable being manipulated and is considered the causal factor
  - c. administered only to the control group
  - d. usually administered in the form of a paper-and-pencil test or a performance test

29. The case-study approach
- relies mainly on the use of surveys
  - is exemplified by studies on maladjusted or emotionally disturbed individuals
  - focuses on getting a representative sample of children
  - is used to compare different individuals rather than groups
30. A developmental psychologist tries to determine whether a variable (e.g., instructional method) that he systematically manipulates affects another variable (e.g., IQ scores). This psychologist is using the \_\_\_\_\_ method.
- case-study
  - cross-sectional
  - experimental
  - longitudinal
31. Researchers interested in studying the occurrence of behavior over short periods of time might use a quantitative method known as
- the case study
  - the cross-sectional study
  - the social survey method
  - time sampling
32. Though naturalistic observation can provide a source of ideas for study, it is not a particularly strong technique for studying behavior because
- the researcher lacks control over the behavior being studied
  - the subjects enjoy being observed
  - the researcher usually interacts with the subjects
  - the subjects usually want to be paid for their performance
33. In the cross-cultural method, researchers focus on
- comparison of data from at least five countries
  - several neighboring families in a similar geographical area
  - complex individual differences
  - cultural issues rather than individuals
34. A positive correlation is defined as
- the positive identification of related data
  - when two conditions occur and rise together
  - a numerical relationship between two variables
  - a change from  $-1.00$  to  $+1.00$
35. An important ethical guideline for human research emphasized by the authors of your text was that
- subjects should be required to continue in a study once they commit themselves
  - subjects must sometimes be coerced to participate in an experiment
  - the experimenter is responsible for conducting research with regard for the dignity and welfare of the participants
  - deception should be used when full disclosure to subjects would be harmful to their egos

**Conceptual Questions**

1. Life-span development examines
  - a. change in individuals
  - b. continuity in individuals
  - c. long-term sequences and patterns in individuals
  - d. all of these
  
2. Dr. Jones, a researcher, wishes to *explain* the specific determinants of a child's change in language. Which statement best represents the type of question she might ask when trying to *explain* this change?
  - a. What is the role of learning in language acquisition?
  - b. What is the nature of the speech?
  - c. What are the language capabilities of a 6-month-old infant likely to be at 14 months of age?
  - d. Can we control this change in language?
  
3. On the basis of previous research, a pediatrician decides to place children diagnosed with attention-deficit hyperactivity disorder (ADHD) on a medication regimen including the drug Ritalin. This action is an example of
  - a. control over behavioral development
  - b. prediction of developmental change
  - c. explanation of developmental change
  - d. an unethical practice
  
4. A study is being conducted with preteen subjects examining their muscular development as puberty approaches. What domain is this study examining?
  - a. physical development
  - b. cognitive development
  - c. psychosocial development
  - d. evolutionary development
  
5. A psychologist's research on the memory strategies used by 7-year-old children is focusing on
  - a. maturational development
  - b. affective development
  - c. psychosocial development
  - d. cognitive development
  
6. In a society, more adolescent females are entering puberty at earlier ages than previously documented, which is being studied by psychologists specializing in
  - a. physical development
  - b. cognitive development
  - c. emotional-social development
  - d. evolutionary development
  
7. Which scenario illustrates an individual who is experiencing a developmental change in *growth*?
  - a. A 7-month-old infant sits upright without support.
  - b. An adolescent grows 6 inches taller over the course of a year.
  - c. A young child decides not to touch the hot stove because he was burned when he did this before.
  - d. A 12-year-old girl begins to ovulate.

8. A developmental psychologist discovers that girls begin menstruating only after they have reached a certain weight, body fat proportion, and height, and after other sexual changes have occurred. This psychologist might reasonably conclude that menstruation is controlled by
- learned readiness
  - growth gradients
  - maturational factors
  - ecological factors
9. Of the following, which is the more or less permanent modification in behavior that results from the individual's experience in the environment?
- developing facial hair
  - ovulating at age 13
  - being able to have children
  - becoming a concert pianist
10. Unlike American families one hundred years ago, in many families today the mother works outside the home, and close family relatives may be separated by substantial geographical distances. Developmental psychologists who view development from an ecological approach would explain these changes by referring to the \_\_\_\_\_ within which today's families exist.
- mesosystem
  - exosystem
  - macrosystem
  - microsystem
11. An event that impacts only one generation is what type of influence/event?
- normative age-graded influence
  - normative history-graded influence
  - nonnormative life event
  - cross-generational life event
12. What type of conclusion is accurate concerning the impact of the parental generation on each new generation?
- Each new generation gathers more of its parents' cultural history.
  - New generations typically replicate the views and perspectives of their elders.
  - New generations are not necessarily bound to replicate their elder's views and perspectives.
  - Cultural factors are paramount.
13. Which of the following best exemplifies age stratification?
- A lawyer is granted a personal parking space after being promoted to district attorney.
  - Adolescents in all cultures reach puberty at relatively the same age.
  - A 70-year-old woman is respected in her village because of her age.
  - At 14, a young woman passes her driving test.
14. Age operates indirectly as a function of master status in which of the following cases?
- being eligible to get a driver's license at age 16
  - being able to vote
  - going to college
  - receiving social security benefits

15. Which of the following is acceptable according to U.S. social norms?
- a 2-year-old having a temper tantrum
  - an adolescent believing in Santa Claus
  - a 3-year-old babysitting her younger siblings
  - all of these
16. Louis Terman conducted a study in which the intelligence test performance of the same group of children was assessed at different points in their lifetimes. This was a \_\_\_\_\_ study.
- sequential
  - longitudinal
  - cross-sectional
  - time-sampling
17. The concept of adolescence as we know it today
- is a reflection of children's rights advocacy
  - is the same all over the world
  - emerged from changing social, political, and legal forces
  - is evolving as a longer stage in life
18. A psychologist does a study in which she compares the IQ test performance of groups of 30-, 40-, and 50-year-old people. Each group's average score is lower than the preceding group's scores. The psychologist concludes that as people age, their test scores decline. This conclusion may be in error because
- this is a longitudinal study
  - IQ tests are not valid measures of intelligence
  - you cannot give the same IQ tests to people who vary in age
  - the different age groups differed not only in age but also in cohort
19. A psychologist studies the emotional development of his sons Benjamin and Paul by recording the different ages at which different emotions appear. This research is an example of a(n)
- case study
  - experiment
  - naturalistic observation
  - cross-sectional method
  - e.
20. A group of students in a psychology class conduct an experiment in which the influence of an observer's presence on the subject's willingness to help is measured. The observer's presence is the
- dependent variable
  - independent variable
  - controlled variable
  - varied variable
21. An experimenter is testing the effects of observed violence on children's behavior. One group of children views a violent cartoon. A second group views a humorous, nonviolent cartoon. The third group is not exposed to any cartoon. The first group is a(n)
- experimental group
  - control group
  - comparison group
  - observational group

22. A social psychologist is interested in measuring the attitudes of a group of high school teachers toward including intellectually and emotionally challenged learners in their classrooms. Which type of study would she be most likely to conduct?
- an experiment
  - a naturalistic observation
  - a survey
  - a time-series study
23. A researcher did a study of children's prosocial behavior. He recorded the incidents in which children responded positively to another child in a preschool setting. The researcher was performing a(n)
- experiment
  - longitudinal study
  - case study
  - naturalistic observation
24. A researcher wants to use the scientific method to determine the connection between shoe size and IQ. Which of the following steps will give him the most trouble?
- drawing conclusions
  - making the findings available
  - selecting a researchable problem
  - formulating a hypothesis
25. A developmental psychologist is interested in comparing the attachment level to the parents of children raised on a collective kibbutz with that of children reared in American farm families. This psychologist is using the
- cross-sectional method
  - cross-cultural method
  - naturalistic observation method
  - cultural correlation method

**Essay Questions**

1. A set of identical twins has been discovered, and remarkably, they were separated at birth with one growing up in the United States (Illinois) while the other grew up in China (Beijing). They are now in their mid-40s and lead very different lives. How would you use the ecological approach to examine the forces that have been at work in their lives and how these forces might have affected their development?
2. Do you believe that there must be one “correct” method for doing developmental research? If so, why haven’t we found it? If found, should it be used as the standard for future research?
3. Why do we divide development into different stages and “areas of concern,” and what do we lose or gain by doing this?

ANSWERS FOR SELF-TESTS

**Matching**

- |        |        |        |        |
|--------|--------|--------|--------|
| 1. a   | 16. uu | 31. dd | 46. f  |
| 2. tt  | 17. rr | 32. k  | 47. jj |
| 3. g   | 18. v  | 33. q  |        |
| 4. cc  | 19. aa | 34. mm |        |
| 5. nn  | 20. b  | 35. e  |        |
| 6. pp  | 21. l  | 36. w  |        |
| 7. c   | 22. x  | 37. i  |        |
| 8. t   | 23. n  | 38. ii |        |
| 9. y   | 24. z  | 39. qq |        |
| 10. o  | 25. u  | 40. kk |        |
| 11. s  | 26. gg | 41. ll |        |
| 12. oo | 27. ff | 42. r  |        |
| 13. ss | 28. bb | 43. hh |        |
| 14. ee | 29. h  | 44. p  |        |
| 15. j  | 30. m  | 45. d  |        |

**Multiple Choice**

**Factual**

- |       |       |       |
|-------|-------|-------|
| 1. c  | 13. d | 25. c |
| 2. d  | 14. b | 26. d |
| 3. b  | 15. c | 27. c |
| 4. a  | 16. b | 28. b |
| 5. c  | 17. c | 29. d |
| 6. c  | 18. b | 30. c |
| 7. c  | 19. c | 31. d |
| 8. b  | 20. b | 32. a |
| 9. d  | 21. c | 33. d |
| 10. b | 22. c | 34. b |
| 11. b | 23. a | 35. c |
| 12. c | 24. a |       |

**Conceptual**

- |      |       |       |
|------|-------|-------|
| 1. d | 10. c | 18. d |
| 2. a | 11. b | 19. a |
| 3. a | 12. c | 20. b |
| 4. a | 13. c | 21. a |
| 5. d | 14. c | 22. c |
| 6. c | 15. a | 23. d |
| 7. b | 16. b | 24. d |
| 8. c | 17. c | 25. b |
| 9. d | .     |       |

