Sample questions on cognition and developmental psychology

1) When Jean cannot figure out the answer to a question on a multiple choice test, she just chooses answer “c” because she has been told that this is a good method to use. Jean is relying upon ______________ to answer the questions that she cannot figure out.

a. a guaranteed method  
b. an algorithm  
c. cognitive restructuring  
d. a heuristic  
e. inductive reasoning

2) Dave is having trouble coming up with the answer to a math problem. He decides to look through the book and finds the step-by-step procedure for solving the problem. If he follows the steps in the book, he is using:

a. subgoals  
b. working backwards  
c. an algorithm  
d. a heuristic  
e. chunking

3) A supervisor believes that a subordinate is a very poor worker. Therefore, the supervisor looks for and takes note of particular instances in which the subordinate performs poorly and does not look for cases in which the subordinate performs well. The supervisor is demonstrating ______________.

a. the confirmation bias  
b. the leniency bias  
c. unprejudiced hypothesis testing  
d. positive rules of if-then inference  
e. negative rules of if-then inference

4) A researcher notices a number of cases in which students have brought guns to school. She wants to find out the underlying cause that would cover all these cases. She formulates a hypothesis that the different cases of guns being brought to school is caused by increased violence on television. The process the researcher engaged in is an example of _____.

a. Positive inference  
b. Negative inference  
c. Deductive reasoning  
d. Inductive reasoning  
e. algorithmic thinking
5) Amy is working on a problem for a logic class. The problem states that: 1) All the planets in our solar system orbit the sun. 2) Venus is a planet in our solar system. Amy therefore concludes, based on this information, that Venus orbits the sun. This is an example of:

a. deductive reasoning  
b. inductive reasoning  
c. a heuristic  
d. an algorithm  
e. a and c

6) Anthony wants to know the mean of a set of scores along a bell-curve distribution. Anthony reasons that the highest and most central point on the curve probably corresponds to this score; thus, he simply looks at a graph and finds the score corresponding to that point on the curve. Anthony is using a(n) __________ to solve his problem.

a. memory search  
b. heuristic  
c. cognitive mapping  
d. syllogism  
e. algorithm

7) Michelle is a psychologist who has formed a hypothesis about the old adage "absence makes the heart grow fonder" by observing the behavior of several friends whose "significant others" were, for one reason or another, working overseas for a period of time. What type of reasoning did Michelle use in order to reach her hypothesis?

a. deductive  
b. hypothetical  
c. syllogistic  
d. inferential  
e. inductive

8) Bob has designed a computer that can solve crossword puzzles. Bob’s computer uses an algorithmic strategy. This means that, when solving for an 8-letter word for ‘bothersome’ that begins with an “a” and ends with “in_”, Bob’s computer _______.

a. searches for words that end in “ing”  
b. looks for words that are adjectives since the hint is an adjective  
c. recalls Bob’s annoying friend Phil  
d. puts every possible letter combination together and looks up each result  
e. crashes
9) Most people would guess that Atlanta is farther east than Cleveland because they believe that Georgia is east of Ohio; Cleveland is in Ohio, and Atlanta is in Georgia. This kind of reasoning suggests people are using _______ to judge the positions of Atlanta and Cleveland.

a. a picture-like mental map  
b. conceptual knowledge  
c. an algorithm  
d. induction  
e. a restructuring procedure

10) Two psychologists tied a ribbon from the crib mobile to their infant daughter's wrist. At first, she just lay in the crib, but after approximately 15 minutes the baby began to jerk her wrist to move the mobile. Soon, she began to jerk her wrist again to make the mobile move. This shows that the baby had learned _______.

a. moving mobiles fit into the schema for contingencies  
b. the movement of the mobile was contingent upon her behavior  
c. how to accommodate the mobile movement proposition  
d. the assimilation of the wrist movement proposition  
e. her parents were bizarre

11) Piaget's model of cognitive development makes the underlying assumption that children acquire rules for understanding and dealing with the world around them. Rules are divided into _______, which define a particular category of behavior, and ________, which describe properties of environmental objects and events.

a. signs, signifiers  
b. schemas, concepts  
c. algorithms, heuristics  
d. metacognition, well defined systems  
e. none of the above

12) Baby Mande used to only suck on her bottle. Now she sucks her thumb, her toys, and basically everything that she can. Piaget would say that Baby Mande has _______ all these things into her sucking schema.

a. syncretised  
b. accommodated  
c. conserved  
d. egocentrised  
e. assimilated
13) During the Sensorimotor Period, the most important source of information is _____.
   a. language
   b. emotion
   c. the environment
   d. vision
   e. none of the above

The following refers to the next two questions:

Lesley asks her mother for some juice. Lesley’s mother pours two glasses of juice—one for herself and one for Lesley. The two glasses contain exactly the same amount of juice. However, one glass is tall and thin while the other is short and wide. Lesley insists on having the tall, thin glass because she says it has “more” juice.

14) According to Piaget, Lesley is most likely in the ________________ stage of development which occurs from about ____________ years of age.
   a. sensorimotor period; 2-6
   b. period of concrete operations; 7-11
   c. preoperational period; 2-6
   d. period of formal operations; 7-11
   e. preoperational period; 0-2

15) It can be concluded from this example that Lesley ________________.
   a. fails to conserve volume
   b. fails to conserve number
   c. is egocentric
   d. suffers from cognitive disequilibrium
   e. fails to conserve both quantity and number

16) According to Piaget, which of the following would be an example of a sign?
   a. a baby watching a ball roll under his crib
   b. a baby waving his arms like he was a bird
   c. a baby throwing a stick onto the ground like she saw her mother do with her golf club each time she made a bad shot
   d. a baby calling the family's pet poodle a "dog"
   e. b and c
The following refers to the next two questions:

Holly is a child who loves to play hide-and-seek outside. She is not very good at the game. She is good at seeking, but when it comes to hiding, she has difficulty. Whenever her mother closes her eyes and begins to count, Holly runs over to a wall and stands facing it. She appears to think that if she cannot see her mother, her mother cannot see her.

17) Her good seeking behavior shows that Holly has achieved:

a. object permanence  
b. accommodation  
c. conservation  
d. representation  
e. all of the above

18) Her unusual hiding behavior demonstrates which of the following?

a. the A-not-B effect  
b. assimilation  
c. reversibility  
d. egocentrism  
e. none of the above

19) Suppose that you show a small boy two bars of fresh fudge that are equal on all dimensions (exactly the same size, shape, and weight). You ask him if the two bars are the same, and he says "Yes." You then cut one of the bars into 10 chunks as he watches. The boy now asks if he can have the cut up bar because it has more candy than the intact bar. This episode illustrates that the youngster:

a. is in the sensorimotor period of cognitive development  
b. does not demonstrate conservation  
c. is in the period of formal operations  
d. lacks the concept of object permanence  
e. tends to show passive expectation

20) From the information processing point of view of cognitive development, how would you explain that a five year old could not recall as many of the pictures of farm animals just shown to her as a seven year old?

a. The younger child is less likely to engage in memory aiding processes such as rehearsal compared to the older child  
b. The younger child's LTM capacity is limited.  
c. The younger child is bored, so she does not try very hard.  
d. The two children should perform equally well because their age difference is not that great.  
e. There is no reasonable explanation from the information processing point of view.
Answers:

1. d
2. c
3. a
4. d
5. a
6. b
7. e
8. d
9. b
10. b
11. b
12. e
13. c
14. c
15. a
16. d
17. a
18. d
19. b
20. a