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Test Taker's Help Series

CAT

Sample Questions

The Sample Questions are provided to familiarize you with the contents of the section.

Analytical Reasoning

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Sample Questions for:
Analytical Reasoning
Difficulty Level: 1-5 of 10

Purpose of this set of sample questions is to familiarize the test taker with the question types that appear on the actual test.

Analytical Reasoning

Directions:

Analytical reasoning questions are based on a passage or set of conditions. While answering a few of the analytical reasoning questions, you would find it useful to draw a rough diagram. To answer any question, choose the answer you think is most appropriate among the given options.

Questions 1- 3

Three men (Tom, Peter and Jack) and three women (Eliza, Anne and Karen) are spending a few months at a hillside. They are to stay in a row of nine cottages, each one living in his or her own cottage. There are no others staying in the same row of houses.

1. Anne, Tom and Jack do not want to stay in any cottage, which is at the end of the row.
2. Eliza and Anne are unwilling to stay besides any occupied cottage.
3. Karen is next to Peter and Jack.
4. Between Anne and Jack's cottage there is just one vacant house.
5. None of the girls occupy adjacent cottages.
6. The house occupied by Tom is next to an end cottage.

1. Which of the above statements can be said to have been derived from two other statements?
   A. Statement 1
   B. Statement 2
   C. Statement 3
   D. Statement 5
   E. Statement 6
2. How many of them occupy cottages next to a vacant cottage?
   A. 2
   B. 3
   C. 4
   D. 5
   E. 6
3. Which among these statement(s) are true?
   I. Anne is between Eliza and Jack.
   II. At the most four persons can have occupied cottages on either side of them. .
   III. Tom stays besides Peter.
   D. I only
   E. II only
   F. I and III only
   G. II and III only
   H. I, II and III

Questions 4 - 7

An employee has been assigned the task of allotting offices to six of the staff members. The offices are numbered 1 - 6. The offices are arranged in a row and they are separated from each other by six foot high dividers. Hence voices, sounds and cigarette smoke flow easily from one office to another.

Miss Robert needs to use the telephone quite often throughout the day. Mr. Mike and Mr. Brown need adjacent offices as they need to consult each other often while working. Miss. Hardy is a senior employee and has to be allotted the office number 5, having the biggest window. .

Mr. Donald requires silence in the offices next to his. Mr. Tim, Mr. Mike and Mr. Donald are all smokers. Miss Hardy finds tobacco smoke allergic and consecutively the offices next to hers to be occupied by non-smokers.

Unless specifically stated all the employees maintain an atmosphere of silence during office hours.

4. The ideal candidate to occupy the office furthest from Mr. Brown would be
    A. Miss Hardy
    B. Mr. Mike
    C. Mr. Tim
    D. Mr. Donald
    E. Mr. Robert
5. The three employees who are smokers should be seated in the offices.
    A. 1, 2 and 4
    B. 2, 3 and 6
    C. 1, 2 and 3
    D. 1, 2 and 3
    E. 1, 2 and 6
6. The ideal office for Mr. Mike would be.
    A. 2
    B. 6
    C. 1
    D. 3
    E. 4
7. In the event of what occurrence, within a period of one month since the assignment of the offices, would a request for a change in office be put forth by one or more employees?
    A. Mr. Donald quitting smoking.
    B. The installation of a noisy teletype machine by Miss Hardy in her office.
    C. Mr. Roberts needing silence in the office (s) next to her own. .
    D. Mr. Brown suffering from laryngitis.
    E. Mr. Tim taking over the duties formerly taken care of by Miss. Robert. .

Questions 8 - 10

In an experiment conducted at a laboratory, 160 white mice were injected with Serum D. 160 other white mice were injected with a harmless sugar solution .In two weeks time 39% of the white mice, who were injected with Serum D contracted the highly contagious and often fatal disease, jungle fever. Hence, it can be concluded that jungle fever is caused by some elements similar to the elements in Serum D.

8. The above discussion would be weakened most severely in case it is shown that
    A. People contracting jungle fever are usually the victims of the bite of the South American Lesser Hooded Viper.
    B. One among the 160 white mice had already contracted jungle fever prior to the laboratory experiment.
    C. The natural habitats of white mice do not contain any of the elements found in Serum D.
    D. The scientists administered the injections being ignorant of the contents of the solutions used.
    E. The 160 white mice used in the laboratory experiment were kept isolated from each other.
9. The above argument would be highly empowered in case it were shown that:
    A. Some of the elements in Serum D are extracted from the root of a certain poisonous jungle wildflower.
    B. Within a period of two weeks about 40% of the white mice, who were injected with a harmless sugar solution also contracted jungle fever.
    C. Almost all the white mice died within a period of two days after the first symptoms appeared.
    D. Normally the rate of jungle fever among white mice is less than 0.01%.
    E. Invariably the blood of the victims of jungle fever victims contains a high level of a certain toxic substance also found in serum D.
10. Distribution of leaflets and delivering speeches on government property should be outlawed. Radicals and fanatics have no right to use public property when peddling their unsavory views.

    The argument above is based on the postulate

    A. The general public has a special concern in the free exchange of different political views.
    B. Radicals and fanatics prefer the use of public property while propagating their viewpoint.
    C. Every person who hands out leaflets and delivers speeches is a radical or fanatic.
    D. Legal constraints which are applicable to one group need not be equally applicable to all.
    E. Any political activity, which hinders the proper functioning of the government should not be protected by the law.

Questions 11 - 12

Successfully adjusting to one's environment leads to happiness. War at a universal level war destroys the weaker people, who are the most unable to adjust to their environment. Thus, war at the universal level puts weaklings out of their misery and allows more space for their predators to enjoy life in a better manner. As those actions have to be performed, which maximize the level of happiness of the greatest number, war at a universal level should take place.

11. What response would the author of the above discussion come up with, in the case of the objection that the weaklings far exceed strong people?
    I. He would respond with the statement that the person making the objection is a weakling.
    II. He would respond by saying that weaklings will be miserable no matter what happens.
    III. He would respond with the statement that the strong would be frustrated if the weaklings are destroyed.
    D. I only
    E. II only
    F. III only
    G. I and II only
    H. II and III only

The author's discussion would be greatly if he agreed to which of the following?

IX. Technology could change the environment.
X. War at the universal level would be an integral part of the environment.
XI. It is possible for the strong to survive without suppressing the weak.
L. I only
M. II only
N. III only
O. I and III only
P. I, II and III only

Questions 13 - 17

Two or more essences out of a stock of five essences--L, M, N, O, and P are used in making all perfumes by a manufacturer. He has learned that for a blend of essences to be agreeable it should comply with all the rules listed below.

- A perfume containing L, should also contain the essence N, and the quantity of N should be twice as that of L.
- A perfume containing M, must also have O as one of its components and they should be in equal proportion.
- A single perfume should never contain N as well as O.
- O and P should not be used together.
- A perfume containing the essence P should contain P in such a proportion that the total amount of P present should be greater than the total amount of the other essence or essences used.

13. Among the following which is an agreeable formula for a perfume?
    A. One part L, one part P
    B. Two parts M, two parts L
    C. Three parts N, three parts L
    D. Four parts O, four parts M
    E. Five parts P, five parts M
14. Adding more amount of essence N will make which of the following perfumes agreeable?
    A. One part L, one part N, five parts P
    B. Two parts M, two parts N, two parts P
    C. One part M, one part N, one part P
    D. Two parts M, one part N, four parts P
    E. Two parts N, one part O, three parts P
15. Among the following, the addition of which combination would make an un-agreeable perfume containing two parts N and one part P agreeable?
    A. One part L
    B. One part M
    C. Two parts N
    D. One part O
    E. Two parts P
16. Among the following which combination cannot be used together in an agreeable perfume containing two or more essences?
    A. L and M
    B. L and N
    C. L and P
    D. M and O
    E. P and N
17. Among the below mentioned formulas, which can be made agreeable by the eliminating some or all of one essence ?
    A. One part L, one part M, one part N, four parts P

B. One part L, two parts N, one part O, four parts P
C. One part L, one part M, one part O, one part P
D. Two parts L, two parts N, one part O, two parts P
E. Two parts M, one part N, two parts O, three parts P

Questions 18 - 23

Nine individuals - Z, Y, X, W, V, U, T, S and R - are the only candidates, who can serve on three committees--A, B and C, and each candidate should serve on exactly one of the committees.

Committee A should consist of exactly one member more than committee B.
It is possible that there are no members of committee C.
Among Z, Y and X none can serve on committee A.
Among W, V and U none can serve on committee G.
Among T, S and R none can serve on committee C.

18. In case T and Z are the individuals serving on committee B, how many of the nine individuals should serve on committee C?
    A. 3
    B. 4
    C. 5
    D. 6
    E. 7
19. Of the nine individuals, the largest number that can serve together on committee C is
    A. 9
    B. 8
    C. 7
    D. 6
    E. 5
20. In case R is the only individual serving on committee B, which among the following should serve on committee A?
    A. W and S
    B. V and U
    C. V and T
    D. U and S
    E. T and S
21. In case any of the nine individuals serves on committee C, which among the following should be the candidate to serve on committee A?
    A. Z
    B. Y
    C. W
    D. T
    E. S
22. In case T, S and X are the only individuals serving on committee B, the total membership of committee C should be:
    A. Z and Y
    B. Z and W
    C. Y and V
    D. Y and U
    E. X and V
23. Among the following combinations which could constitute the membership of committee C?
    A. Y and T
    B. X and U
    C. Y, X and W
    D. W, V and U
    E. Z, X, U and R

Questions 24 - 26

(M, N, O and P are all different individuals)

I. M is the daughter of N.
II. N is the son of O
III. O is the father of P.

24. Among the following statements, which is true ?
    A. O is the uncle of M.
    B. P and N are brothers
    C. M is the daughter of P.
    D. If B is the daughter of N, then M and B are sisters.
    E. If C is the granddaughter of O, then C and M are sisters.
25. Which among the following statements is contradictory to the above premises?
    A. P is the father of M.
    B. O has three children.
    C. M has one brother.
    D. M is the granddaughter of O.
    E. Another party C, could be the mother of M.
26. If B is the son of N and B has one brother, D, then
    I. M is the sister of D.
    II. D and N are brothers.
    III. O is the grandfather of D.
    D. I only
    E. II only
    F. III only
    G. I and III only
    H. I and II only

Questions 27 - 33

The only people to attend a conference were four ship captains and the first mates of three of those captains. The captains were L, M, N and O; the first mates were A, D and G. Each person in turn delivered a report to the assembly as follows:

Each of the first mates delivered their report exactly after his or her captain. The first captain to speak was M, and captain N spoke after him.

27. Among the following which is not an appropriate order of delivered reports?
    A. M, A, N, G, O, L, D
    B. M, D, N, G, L, O, A
    C. M, N, A, L, D, O, G
    D. M, N, A, O, D, L, G
    E. M, N, G, D, O, L, A
28. In case L speaks after A, and A is the third of the first mates to speak, then among the following statements which would be untrue?
    A. O spoke immediately after G.
    B. The order of the first four speakers was M, G, N, D.
    C. O's first mate was present.
    D. A was the fourth speaker after M.
    E. The captains spoke in the order M, N, O, L.
29. Among the following statements which statement must be true?
    A. In case the second speaker was a captain, the seventh speaker was a first mate.
    B. In case the second speaker was a first mate, the seventh speaker was a captain.
    C. In case the third speaker was a first mate, the seventh speaker was a captain.
    D. In case the third speaker was a captain, the seventh speaker was a first mate.
    E. In case the seventh speaker was a first mate, the first and third speakers were captains.
30. In case A spoke immediately after L and immediately before O, and O was not the last speaker, L spoke
    A. second
    B. third
    C. fourth
    D. fifth
    E. sixth
31. In case G is M's first mate, D could be the person who spoke immediately
    A. prior to T
    B. prior to L
    C. prior to V
    D. after T
    E. after V
32. In case A is the third of the first mates to speak, and L is the captain whose first mate is not present, which among the following statements must be true?
    A. A spoke sometime before L.
    B. D spoke sometime before O.
    C. L spoke sometime before O.
    D. O spoke sometime before L.
    E. O spoke sometime before N.
33. Among the following statements, which would make M, D, N, G, L, O, A the only possible sequence of speakers?
    A. D is M's first mate; G is N's first mate; A is O's first mate.
    B. D is M's first mate; G is N's first mate; A was the second to speak after L.
    C. The order of the first four speakers was M, D, N, G.
    D. The order of the last three speakers was L, O, A.
    E. The order in which the captains spoke was M, N, L, O.

Questions 34 - 39

There are three on-off switches on a control panel A, B, and C. They have to be changed from an initial setting to a second setting according to the following conditions: In case only switch A is the switch on in the initial setting, then turn on switch B.

In case switches A and B are the only switches on in the initial setting, then turn on switch C. In case all the three switches are on initially setting, then turn off the switch C. For any other initial setting, turn on all switches that are off and turn off all switches, if any, that are on.

34. In case in the initial setting is that the switches A and B are on and the switch C is off, then what could be the second setting?
    A. A on, B on, C on.
    B. A on, B off, C on.
    C. A on, B off, C off.
    D. A off, B on, C off.
    E. A off, B off, C on.
35. In case switch B is the only switch on in the initial setting, what must be the second setting?
    A. A on, B on, C on.

B. A on, B on, C off.
C. A on, B off, C on.
D. A off, B off, C on.
E. A off, B off, C off.

36. In case all the three switches are on in the second setting, which among the following could have been the initial setting ?
    A. A on, B on, C on.
    B. A on, B on, C off.
    C. A on, B off, C on.
    D. A on, B off, C off.
    E. A off, B on, C off
37. In case switch A is off in the second setting, which among the following could have been the initial setting ?
    A. A on, B on, C on.
    B. A on, B on, C off.
    C. A on, B off, C on.
    D. A on, B off, C off.
    E. A off, B on, C off.
38. In case only switch B is on in the second setting, which among the following could have been the initial setting ?
    A. A on, B on, C on.
    B. A on, B off, C on.
    C. A off, B on, C off.
    D. A off, B off, C on.
    E. A off, B off, C off.
39. Which among the following initial settings leads to a second setting, where only one switch is off?
    A. A on, B on, C off.
    B. A on, B off, C on.
    C. A off, B on, C on.
    D. A off, B on, C off.
    E. A off, B off, C off.

Questions 40 - 42

A bus has exactly six stops on its route. The bus first stops at stop one and then at stops two, three, four, five, and six respectively. After the bus leaves stop six, the bus turns and return to stop one and repeat the cycle. The stops are at six building that are, in alphabetical order L, M, N, O, P, and Q.

P is the third stop.
M is the sixth stop.
The stop O is the stop immediately before Q.
N is the stop immediately before L.

40. In case N is the fourth stop, which among the following must be the stop immediately before P?
    A. O
    B. Q
    C. N
    D. L
    E. M
41. In case L is the second stop, which among the following must be the stop immediately before M?
    A. N
    B. L
    C. P
    D. O
    E. Q
42. In case a passenger gets on the bus at O, rides past one of the stops, and gets off at P, which of the following must be true?
    A. O is stop one.
    B. Q is stop three.
    C. P is stop four.
    D. N is stop five.
    E. L is stop six.

For answers and solution explanation of the questions, visit official website of College of Admission tests:

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