

NAT II Physical Science Analytical

Sr	Questions	Answers Choice
1	<p>A railway track from Lahore to Islamabad consists of six main stations, P, Q, R, X, Y, and Z. Trains run only according to the following condition:</p> <p>(i) From P to Q</p> <p>(ii) From Q to P and from Q to R</p> <p>(iii) From R to X</p> <p>(iv) From X to Q and from X to Y</p> <p>(v) From Z to P, from Z to Y and from Z to R</p> <p>(vi) From Y to X</p> <p>(vii) It is possible to transfer a station for another train.</p> <p>Q. The trip which requires greatest number of transfer, is:</p>	<p>A. P to R B. Q to Y C. Z to Q D. Z to R E. Z to Y</p>
2	<p>Two or more tealeaves out of five varieties – Livana, Mathia, Novajana, Oxia, and Piask are used in making all branded by a marketer following the rules given below.</p> <p>A brand containing Livana, should also contain Novajana twice that of Livana.</p> <p>A brand containing Mathia, must also have equal quantity of Oxia.</p> <p>A single brand never contains Novajana as well as Oxia.</p> <p>Oxia and Piask should not be used together.</p> <p>A blend containing Piask should contain it in such a proportion that the total amount of Piask present should be greater than the total amount of the other tealeaves</p> <p>Q: Among the below mentioned brands, which can be made agreeable by eliminating some or all of one type of tealeaves?</p>	<p>A. One part Livana, one part Mathia, one part Novajana, four parts Piask B. One part Livana, two parts Novajana, one part Oxia, four parts Piask C. One part Livana, one part Mathia, one part Oxia, one part Piask D. Two parts Livana, two parts Novajana, one part Oxia, two parts Piask E. Two parts Mathia, one part Novajana, two parts Oxia, three parts Piask</p>
3	<p>In a factory control room, there are three ON-OFF switches on the central control panel, labeled A, B and C. They are changed from default setting to a required setting based on the following rules:</p> <p>In case only switch A is ON in the default setting, then turn switch B ON.</p> <p>In case switches A and B are the only switches ON in the default setting, then turn switch C ON. In case all the three switches are ON, in default setting, then turn the switch C OFF. For any other default setting, turn ON all switches that are OFF and turn OFF all switches, if any, that are ON.</p> <p>Q: In case, switch A is OFF in the second setting. Which of the following could have been the default setting?</p>	<p>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.</p>
4	<p>A group of dog lovers declare that the principal virtue of the dog is its general friendliness towards all people. But, another group of cat lovers declare that the principal virtue of the cat is its peculiar friendliness towards its provider.</p> <p>Which of the following is true of the claims of both dogs and cats lovers?</p>	<p>A. Animal have not a sense to understand human behaviour B. Groups of animal lovers are friendly C. Friendliness is a virtue D. They apply the same standard E. Uncommon virtue of friendliness</p>
	<p>Four captains and the first mates of three of them were called to attend the annual meeting at head quarter. The captains were Luqman, Manzoor, Nauman and Osaf; the first mates were Ayesha, Durya and Gia. Each person in turn delivered a report to the chairperson as follows:</p>	

- the chairperson as follows:
- 5 Each of the first mates delivered their report exactly after her captain. The first captain to speak was Manzoor, and captain Nauman spoke after him.
- (Represent the person with first letter of his name)
- Q: 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 sometimes before L.
E. O spoke sometime before N.

- Multan Institute of Higher Studies plans to show five educational films A, B, C, D and E to a group of students. The film shows are planned in an order, which conforms to the following conditions:
- 6 A must be shown earlier than C.
- B must be shown earlier than D.
- E should be the fifth film shown.
- Q: In case, C is shown earlier than E, which among the following will hold true?

- A. A is the second film shown.
B. B is the second film shown.
C. C is the third film shown.
D. D is the fourth film shown.
E. E is the fourth film shown.

- Six candidates ... Ali, Amin, Omer, Hamza, Saleem and Osama are being interviewed for a job. The interview will take place over four consecutive days, starting on Thursday. Each candidate will have only one interview. The day on which the different candidates will interview must conform to the following conditions:
- 7 (i) At least one interview will take place each day
- (ii) No more than two interviews will take place on any day
- (iii) No more than three interviews will take place on any two consecutive days
- (iv) Ali's interview must take place on Saturday.
- (v) Amin's interview must place on the same with another interview.
- (vi) Saleem's interview must take place on the day before Osama's interview
- (vii) Omer's interview must take place on a day after Hamza's interview.
- Q: If Hamza and Osama have their interviews on the same day which of the following be must be true?

- A. Hamza's interview will take place on Thursday
B. Saleem's interview will take place on Friday
C. Amin's interview take place on Saturday
D. Osama's interview will take place on Saturday
E. Amin's interview will take place on Sunday

- A railway track from Lahore to Islamabad consists of six main stations, P, Q, R, X, Y, and Z. Trains run only according to the following condition:
- 8 (i) From P to Q
- (ii) From Q to P and from Q to R
- (iii) From R to X
- (iv) From X to Q and from X to Y
- (v) From Z to P, from Z to Y and from Z to R
- (vi) From Y to X
- (vii) It is possible to transfer a station for another train.
- Q. The complete and accurate listing of the stations from which it is possible to reach R with exactly one transfer is :

- A. P and Q
B. P and X
C. X and Y
D. X and Z
E. X, P and Z

- Four captains and the first mates of three of them were called to attend the annual meeting at head quarter. The captains were Luqman, Manzoor, Nauman and Osaf; the first mates were Ayesha, Durya and Gia. Each person in turn delivered a report to the chairperson as follows:
- 9 Each of the first mates delivered their report exactly after her captain. The first captain to speak was Manzoor, and captain Nauman spoke after him.
- (Represent the person with first letter of his name)

- 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

Q: 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?

In a factory control room, there are three ON-OFF switches on the central control panel, labeled A, B and C. They are changed from default setting to a required setting based on the following rules:

In case only switch A is ON in the default setting, then turn switch B ON.

- 10 In case switches A and B are the only switches ON in the default setting, then turn switch C ON. In case all the three switches are ON, in default setting, then turn the switch C OFF. For any other default setting, turn ON all switches that are OFF and turn OFF all switches, if any, that are ON.

- 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.

Q: In case, only switch B is ON in the second setting. Which of the following could have been the default setting?

11 Follow us to the real Pakistan leaving behind the disturbances of civilization. Real Pakistan is still inhabited by the eagle, the cow, the black deer, and tigers; it is still spacious, sprawling, and majestic. Experience the freedom and serenity still to be found in -----.

Q: In 1970, Shaheen Inn earned Rs. 10 million in hotel business. By 1990, revenue doubled and in 2000, it reached the sum of Rs. 40 million. Each of the following, if true, may explain the trend in hotel business except:

- A. The number of total hotel rooms has increased.
B. Average cost per room has increased.
C. The number of customers has increased from 1970 to 1990.
D. Average stay per customer has increased.
E. The average price of customer services has increased.

12 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 returns to stop one and repeats the cycle. The stops are at six buildings 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.

Q: 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.

13 Nine Individuals – Z, Y, X, W, V, U, T, S AND R are the only candidates, who can serve on three committees labeled A, B and C.

Each candidate should serve on exactly one of the committees.

Committee A should consist of exactly one member more than that of committee.

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 C. Among T, S and R none can serve on committee C.

Q: 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

14 Selfishness is a principal evil in our society. Every person is concerned with only himself. Personal advancement is the only motivating force in the world today. This does not mean that individuals are not willing to help one another, on the contrary, ----- However, these are only short-term occurrences, which ultimately serve our long-term goal of personal gain.

Q: Which among the following options would most strongly contradict the author;s attitude towards society?

- A. The greatest of society is altruism.
B. We must all learn the art of love.
C. Our short-term actions may contradict our long-term goals.
D. Morality is the bedrock of a growing community.
E. The forces of good will ultimately triumph over evil.

A chemist is preparing a nutriment using eight different vitamins and mineralsA, B, C, D, E, H, F(Ferric), and Z(Zinc). According to the recipes, the following requirements apply to the use of ingredients:

(i) If B is used, both C and Z must also be used

(ii) E and H must always be used together

- A. A, D, Z
B. B, H, F

- 15 (iii) If C is used, at least two of A, B and F must also be used
 (iv) C and H cannot be used together
 (v) E, F and Z cannot all be used in a same nutrient
 (vi) A, D, and Z cannot all be used in the same nutriment

B. B, H, E
 C. C, D, H
 D. C, E, Z
 E. E, H, F

Q: By the addition of exactly one more mineral, which of the following could make an acceptable combination of vitamins and minerals?

- 16 In an in vitro study, 160 white cats were injected with Salt X. 160 other white cats injected with placebo. In two weeks, 39% of the white cats, who were injected with Salt X showed symptoms of Kay fever. Hence, it can be concluded that Kay fever is caused by some elements similar to the elements in Salt X.

Q: Wall chalking on public property should be outlawed. Radicals and fanatics have no right to use public property when promoting their unsavory views. The argument above is based on the idea

A. The general public has an interest in the free exchange of different political views.
 B. Every person who uses wall chalking for the promotion of ideas is a radical or fanatic.
 C. Radicals and fanatics prefer the use of public property while propagating their viewpoint.
 D. Legal constraints should be equal for all.
 E. Any promotional activity, which is against public interest, should be protected by law.

- 17 Two or more tealeaves out of five varieties – Livana, Mathia, Novajana, Oxia, and Piask are used in making all branded by a marketer following the rules given below.

A brand containing Livana, should also contain Novajana twice that of Livana.

A brand containing Mathia, must also have equal quantity of Oxia.

A single brand never contains Novajana as well as Oxia.

Oxia and Piask should not be used together.

A blend containing Piask should contain it in such a proportion that the total amount of Piask present should be greater than the total amount of the other tealeaves

Q: Adding more amount of Novajana will make which of the following brands conformable with the conditions?

A. One part Livana, one part Novajana, five parts Piask
 B. Two parts Mathia, two parts Novajana, two parts Piask
 C. One part Mathia, one part Novajana, one part Piask
 D. Two parts Mathia, one part Novajana, four parts Piask
 E. Two parts Novajana, one part Oxia, three parts Piask

- 18 Selfishness is a principal evil in our society. Every person is concerned with only himself. Personal advancement is the only motivating force in the world today. This does not mean that individuals are not willing to help one another, on the contrary, ----- However, these are only short-term occurrences, which ultimately serve our long-term goal of personal gain.

Q: People should be held accountable for their own behavior, and if holding people accountable for their own behavior entails capital punishment, then so be it. However, no person should be held accountable for behavior over which he or she had no control. Which of the following is the most logical conclusion of the argument above?

A. People should not be held accountable for the behavior of other people.
 B. People have control over their own behavior.
 C. People cannot control the behavior of other people.
 D. Behavior that cannot be controlled should not be punished.
 E. People have control over behavior that is subject to capital punishment.

- 19 Four captains and the first mates of three of them were called to attend the annual meeting at head quarter. The captains were Luqman, Manzoor, Nauman and Osaf; the first mates were Ayasha, Durya and Gia. Each person in turn delivered a report to the chairperson as follows:

Each of the first mates delivered their report exactly after her captain. The first captain to speak was Manzoor, and captain Nauman spoke after him.

(Represent the person with first letter of his name)

Q: 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.

- 20 Selfishness is a principal evil in our society. Every person is concerned with only himself. Personal advancement is the only motivating force in the world today. This does not mean that individuals are not willing to help one another, on the contrary, ----- However, these are only short-term occurrences, which ultimately serve our long-term goal of personal gain.

Q: To fill the blank in the above passage, select one of the options from the below

A. We are always trying to undermine other endeavors.
 B. People always deceive one another.
 C. Even close friends are not trustworthy.
 D. People want power to control others
 E. There are many occasions when

mentioned options:

There are many occasions when we graciously offer our assistance.
