NAT II Biological Science Analytical

Sr	Questions	Answers Choice
1	In an in vitro study, 160 white cars 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: Which of the following would most strengthen the argument above?	A. Some of the elements in Salt X are extracted from the root of a certain poisonous herb of Hunza. B. The blood test of the victims of Kay fever revealed the presence of a toxic element in their blood, normally found in salt X. C. Almost all the white cats died within two days after the first symptom appeared. D. Normally the rate of Kay fever among white cats is less than 0.01%. E. Within two weeks, about 40% of the white cats, who were injected with placebo, also contracted Kay fever.
2	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: 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.
3	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.
4	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: 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 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
5	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: 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

6	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: Professor Taimoor told his class that teacher's evaluation by students is not a valid measure of teaching quality. For this evaluation, students should fill out questionnaires at the end of the course. Which of the following, if true, supports professor Taimoor's suggestion?	A. Students' evaluation of teachers is a wrong method. B. Student's opinions against teachers are filtered during course. C. Professor Taimoor had received low ratings from his students. D. Teachers are not interested in any survey. E. Students show interest in teacher evaluation.
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8	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: (i) Frm 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
9	An observatory is setting up a schedule for school children to view a returning comet. Five school classes K, L, N, O, and P-will each view the comet exactly once during the four nights. Monday through Thursday, of its maximum brightness. Excellent viewing conditions ‘are predicated for all four nights. The scheduling is subject to the following constraints: At most two classes can view the comet on any given night. Class K cannot view the comet on the same night that Class N does. Class L must view the comet on a night prior to the night when Class P views the comet. Class O must view the comet on the same night that Class P does. Q: If Class O can view the comet neither on Wednesday nor on Thursday, which of the following must be true?	A. Class K view s the comet on Monday. B. Class L views the comet on Monday. C. Class L views the comet on Tuesday. D. Class N views the comet on Wednesday. E. Class views the comet on Thursday.
10	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	A. Y and T B. X and U C. Y, X and W D. W, V and U E. Z, X, U and R

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

Q: Among the following combinations which could constitute the membership of committee C?

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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.

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Six scientists A, B, C, D, E and F are to present a paper each at a one-day conference. Three of them will present their paper in the morning session before the lunch break whereas the other three will present in the afternoon session. The lectures have to be scheduled in such a way that they comply with the following restrictions:

B should present his paper immediately before C's presentation; their presentations cannot be separated by the lunch break. D must be either the first or the last scientist to present his paper.

Q: In case F and E are the fifth and sixth presenters respectively then which of the following must be true?

A. A is first in the order of presenters.
B. A is third in the order of presenter.
C. A is fourth in the order of presenters.
D. B is first in the order of presenters.
E. C is fourth in the order of presenters.

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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: There is clear evidence that the mandated vaccination of children under age four has resulted in fewer child fatalities over the past fice years. Compared to the five-year period prior to the passage of laws requiring the vaccination, fatalities of children under age four have decreased by 30 percent. Which one of the following, if true, most substantially strengthens the argument above?

A. The fatality rate for other age groups has remained steady over the past five years.
B. Air pollution has been increased over the period of past five years.
C. Government has implemented a malaria control campaign last year
D. Health conditions in the country are better than has been previously.
E. Death rate of pregnant women has decreased.

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A. First
B. Second
C. Third
D. Fourth
E. Fifth

15

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.

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.

Q: Which of the following default 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.

Three men (Tahir, Pervaiz and Javed) and three women (Elena, Ayesha and Kiran) are spending a few months at Abbottabad. They are to stay in a row of nine cottages, each on living in his or her own cottage. There are no others staying in the same row of cottages.

1. Ayesha, Tahir and Javed do not want to stay in any cottage, which is at the end of

1. Ayesha, Tahir and Javed do not want to stay in any cottage, which is at the end of the row.

2. Elena and Ayesha ar unwilling to stay besides my occupied cottage.

3. Kiran is next to Pervaiz and Javed.

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4. Between Ayesha and Javed's cottage there is just one vacant house.

5. None of the girls occupies adjacent cottages.

6. The house occupied by Tahir is next to an end cottage.

Q: Which among these statement(s) are true?

a. Ayesha is between Elena and Javed.

b. At the most four persons can have ocupied cottages on either side of them.

c. Tahir stays besides Pervaiz

A. I only
B. II only
C. I and III only
D. II and III only
E. I, II and III

17

Three girls Joan, Rita and Kim and two boys Tim and Steve are the only dancers in a dance program, which consists of six numbers in this order: One a duet; two a duet; three a solo; four a duet; five a solo; and six a duet.

None of the dances is in two consecutive numbers or in more than two numbers. The first number in which Tim appears is the one that comes before the first number in which Kim appears.

The second number in which Tim appears is one that comes after the second number in which Kim appears.

Q: Rita must perform only in duets if

A. Kim is in number two
B. Kim is in number five
C. Tim is in number one
D. Tim is in number two
E. Tim is in number six

18

A chemist is preparing a nutriment using eight different vitamins and minerals ….A, 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

(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

Q: Which of the following is a suitable combination of vitamins and minerals for a nutriment?

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

19

One's ability to adjust in an environment successfully leads to happiness. War at a universal level destroys the weaker people, who are the most unable to adjust to their environment. Thus, war at the universal level puts weakling 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.

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

I- Technology could change the environment.

II- War at the universal level would be an integral part of the environment.

III- It is possible for the strong to survive without suppressing the weak.

A. I only
B. II only
C. III only
D. I and III only
E. I, II and III only

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A. A ON, B ON, C ON.
B. A ON, B OFF, C ON

20 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.

Q: In case, in default setting the switches A and B are ON and the switch C is OFF, then what could be the second setting?

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.