

NAT II Management Science Analytical

Sr	Questions	Answers Choice
1	<p>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.</p> <p>1. Ayesha, Tahir and Javed do not want to stay in any cottage, which is at the end of the row.</p> <p>2. Elena and Ayesha are unwilling to stay besides my occupied cottage.</p> <p>3. Kiran is next to Pervaiz and Javed.</p> <p>4. Between Ayesha and Javed's cottage there is just one vacant house.</p> <p>5. None of the girls occupies adjacent cottages.</p> <p>6. The house occupied by Tahir is next to an end cottage.</p> <p>Q: How many of them occupy cottages next to a vacant cottage?</p>	<p>A. 2 B. 3 C. 4 D. 5 E. 6</p>
2	<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> <p>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.</p> <p>(Represent the person with first letter of his name)</p> <p>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 true?</p>	<p>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</p>
3	<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>
4	<p>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:</p> <p>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.</p>	<p>A. First B. Second C. Third D. Fourth E. Fifth</p>

Q: B could be placed at any of the following places in the order of presenters EXCEPT

- 5 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: Everything that the king knows necessarily is, because even what we ourselves know necessarily is; and, of course, our knowledge is not as certain as King's knowledge is. However, no future contingent thing necessarily is. Among the following statements, which naturally follows from the above:
- A. There are no future contingent things.
B. It is not true that the king has knowledge of only necessary things.
C. The king has knowledge of no contingent future things.
D. It is not possible for us to know the king.
E. The king has knowledge of everything.

- 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: To fill the blank in the above passage, select one of the options from the below mentioned options:
- 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 we graciously offer our assistance.

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- Q: Drama Producers earn their profits primarily from advertising revenue, and potential advertisers are more likely to advertise on a TV with a wide network, a large number of cable operators, and other viewers. However, the coverage of the channel that is currently the most popular one in this city has steadily increased. Any of the following, if true, would help explain the apparent discrepancy between the two statements above EXCEPT:
- A. The most profitable producer in the city receives revenue from its subscribers as well from advertisers.
B. Advertisers generally switch from the most popular channel to another one only when the other one becomes the most popular instead.
C. The number of channels competing viably with most profitable channel in the city has increased during the last two years.
D. The network of the most profitable TV channel in the city is still greater than of any of its competitors.
E. Advertising rates charged by the most profitable TV channel in the city are significantly higher than those charged by its competitors.

- 8 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: 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?
- 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.

- 9 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: Among the below mentioned brands, which can be made agreeable by eliminating some or all of one type of tealeaves?
- 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

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) 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.

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

Q. The complete and accurate listing of the stations from which it is possible to reach R with exactly one transfer is :

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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: Muzaffar is terrible driver. He had ten traffic violations in the past year. Which of the following can be said about the above claim?

- A. Muzaffar does not know how to drive
- B. Muzaffar is an addict of drugs
- C. It is obvious that everyone has accidents in bad weather.
- D. Some thing, in this argument is hidden.
- E. The given statement is wrong.

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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.

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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 D and E are shown as far apart from each other as possible, which among the following would be true?

- A. A is shown earlier than B
- B. B is shown earlier than C
- C. C is shown earlier than E
- D. D is shown earlier than A
- E. E is shown earlier than B

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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

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:

- 15 A must be shown earlier than C.
B must be shown earlier than D.
E should be the fifth film shown.
Q: In case, D is to be shown earlier than A, then for which of the following these exactly one position from through fifth in which it can be scheduled to be shown?

A. A
B. B
C. C
D. D
E. E

- 16 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 is to present his paper immediately after D presents his paper, C could be scheduled for which of the following places in the order of presenters?

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

- 17 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.
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Q: In case only switches B is ON in the default 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,

- 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 cannot be included in a nutriment that contains E?

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

- 19 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, 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

An Internal Services Manager at a large corporation has been assigned the task of allotting offices to six of the staff members. The offices are titled A through F.

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Mrs. Ruby needs to use the telephone quite often throughout the day. Mr. Mujahid and Mr. Zahid need adjacent offices as they need to consult each other often while working. Mrs. Fauzia is a senior employee and has to be allotted the office marked E, having the biggest window. Mr. Abid requires silence in the offices next to his. Mr. Shahid, Mr. Mujahid and Mr. Abid are all smokers. Mrs. Fauzia requires non-smoker neighbors.

- A. A, B and D
- B. B, C and F
- C. A, B and E
- D. A, B and C
- E. A, B and F

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

Q: The three employees who are smokers should be seated in the offices.