

NAT II Biological Science Analytical

Sr	Questions	Answers Choice
1	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
2	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, only switch B is ON in the second setting. Which of the following could have been the default 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.
3	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. 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. Unless specifically stated all the employees maintain an atmosphere of silence during office hours. Q: The idea office for Mr. Mujahid would be.	A. B B. F C. A D. C E. D
4	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.	A. R B. Y C. W D. T E. S

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:

setting based on the following rules.

5

6

7

8

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, switch A is OFF in the second setting. Which of the following could have been the default 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.

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
- (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

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 attitiude 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.

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 N Views the comet on Thursday, which of the following could be true?

A. Class P views the comet on

B. Class O views the comet on Thursday.

C. Class L views the comet on Tuesday.

D. Class L views the comet on Wednesday.

E. Class K views the comet on Thursday.

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, all three switches are ON in the second setting, which among the following could have been the default 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.

switch (

9

E to a group of students. The film shows are planned in an order, which conforms to A. B is the film shown between A and the following conditions: B. A is the film shown between B and A must be shown earlier than C. D. 10 C. E is the film shown between A and B must be shown earlier than D. C. D. D is the last film shown. E should be the fifth film shown. E. E is the first film shown. Q: In case exactly one film is shown between A and C, and exactly one film is shown between B and D, which among the following will hold true? 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 A. Are ignored by young generation does not mean that individuals are not willing to help one another, on the contrary, -B. Are an obstacle in the --. However, these are only short-term occurrences, which ultimately serve our development in new tunes long-term goal of personal gain. C. Should be stored in museums. 11 D. Lose their distinctive features as Q: Classical songs occupy a unique and peculiar position in every culture. They are time passes. E. Need our respect and admiration imperishable as cultural landmarks, but the emotions expressed in some of the folks even if their tunes and ideas they are often superseded by newer tunes. However, the classics survive just as heritage, express are no longer current. as imposing features of the society, yet unsuited for habitation unless remodeled. The principle point put forth in the above passage is that classical works 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 A. P to R (iii) From R to X B. Q to Y 12 C. Z to Q (iv) From X to Q and from X to Y D. Z to R E. Z 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 trip which requires greatest number of transfer, is: 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 rues given below. A brand containing Livana, should also contain Novajana twice that of Livana. A brancd containing Mathia, must also have equal quantity of Oxia. A. Livana and Mathia B. Livana and Novajana A single brand never contains Novajana as well as Oxia. 13 C. Livana and Piask D. Mathia and Oxia E. Piask and Novajana 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 following, which combination cannot be used together in an agreeable brand containing two or more types of tealeaves? 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 A. O is stop one. are, in alphabetical order L, M, N, O, P and Q. B. Q is stop three. C. P is stop four. 14 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.

at P, which of the following must be true?

Q: In case a passenger gets on the bus at O, rides past one of the stops and gets off

Multan Institute of Higher Studies plans to show five educational films A, B, C, D and

D. N is stop five.

E. L is stop six.

extracted from the root of a certain poisonous herb of Hunza. B. The blood test of the victims of In an in vitro study, 160 white cars were injected with Salt X. 160 other white cats Kay fever revealed the presence of a toxic element in their blood, normally injected with placebo. In two weeks, 39% of the white cats, who were injected with found in salt X Salt X showed symptoms of Kay fever. Hence, it can be concluded that Kay fever is 15 C. Almost all the white cats died caused by some elements similar to the elements in Salt X. within two days after the first symptom appeared. Q: Which of the following would most strengthen the argument above? 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. At IOWA University, Students of Economics must complete a total to twelve courses selected from three different parts of the syllabus Comparative economics, environmental economics, and regional economics... in order to graduate, the students must meet the following course distribution requirements: (i) At least six of the required twelve course must be from the environmental B. 3 C. 5 economics. 16 D. 2 (ii) At least five of the required twelve courses must be from comparative economics E. 4 and regional economics, with at least one, but no more than three, selected from comparative economics. Q: The minimum number of regional economics courses required to fulfil the course distribution requirements is 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 rues given below. A brand containing Livana, should also contain Novajana twice that of Livana. A. One part Livana, one part Piask A brancd containing Mathia, must also have equal quantity of Oxia. B. Two parts Mathia, two parts Livana 17 A single brand never contains Novajana as well as Oxia. C. Three parts Novajana, three parts Livana D. Four parts Oxia, four parts Mathia Oxia and Piask should not be used together. E. Five parts Piask, five parts Mathia 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 of following which is an acceptable brand in accordance with the rules? 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 18 D. 3

- (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

19

- (vii) It is possible to transfer a station for another train.
- Q. The greatest number of stations that can be visited without visiting any station more than once, is:

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.

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.	A. 9 B. 8
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.	C. D. E. S

Q: of the nine individuals, the largest number that can serve together on committee C is

20