

## NAT II Biological Science Analytical

Sr	Questions	Answers Choice
	<p>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:</p> <p>At most two classes can view the comet on any given night.</p> <p>1 Class K cannot view the comet on the same night that Class N does.</p> <p>Class L must view the comet on a night prior to the night when Class P views the comet.</p> <p>Class O must view the comet on the same night that Class P does.</p> <p>Q: If Class O can view the comet neither on Wednesday nor on Thursday, which of the following must be true?</p>	<p>A. Class K views the comet on Monday.</p> <p>B. Class L views the comet on Monday.</p> <p>C. Class L views the comet on Tuesday.</p> <p>D. Class N views the comet on Wednesday.</p> <p>E. Class views the comet on Thursday.</p>
2	<p>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.</p> <p>Q: Which among the following options would most strongly contradict the author's attitude towards society?</p>	<p>A. The greatest good of society is altruism.</p> <p>B. We must all learn the art of love.</p> <p>C. Our short-term actions may contradict our long-term goals.</p> <p>D. Morality is the bedrock of a growing community.</p> <p>E. The forces of good will ultimately triumph over evil.</p>
3	<p>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.</p> <p>Each candidate should serve on exactly one of the committees.</p> <p>Committee A should consist of exactly one member more than that of committee B.</p> <p>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.</p> <p>Q: In case T, S and X are the only individuals serving on committee B, the total membership of committee C should be:</p>	<p>A. Z and Y</p> <p>B. Z and W</p> <p>C. Y and V</p> <p>D. Y and U</p> <p>E. X and V</p>
4	<p>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.</p> <p>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.</p> <p>Unless specifically stated all the employees maintain an atmosphere of silence during office hours.</p> <p>Q: The three employees who are smokers should be seated in the offices.</p>	<p>A. A, B and D</p> <p>B. B, C and F</p> <p>C. A, B and E</p> <p>D. A, B and C</p> <p>E. A, B and F</p>

Two or more tea leaves 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

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

5 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

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.

6 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 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,

7 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: Choose the best option to complete the above statement:

A. The natural beauty of our land

B. The fascinating urban centers

C. The wild terrain of NWFP

D. One's own subconscious

E. The great sprawling cities of the upper Pakistan

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Q: Among of following which is an acceptable brand in accordance with the rules?

A. One part Livana, one part Piask

B. Two parts Mathia, two parts Livana

C. Three parts Novajana, three parts Livana

D. Four parts Oxia, four parts Mathia

E. Five parts Piask, five parts Mathia

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 one 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 the row.

A. 2

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

B. 3

C. 4

3. Kiran is next to Pervaiz and Javed.

D. 5

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

E. 6

5. None of the girls occupies adjacent cottages.

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

Q: How many of them occupy cottages next to a vacant cottage?

A. Some of the elements in Salt X are extracted from the root of a certain poisonous herb of Hunza.

10

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: Which of the following would most strengthen the argument above?

11

Rizwan was born in 1956, and so in 7965 he was nine years old. If we use this example, it is clear that the last two digits of a person's birth will be the same as the last two digits of the year of that person's ninth birthday, except that the position of the digits will be reversed. Identify, which is the best criticism of the assertions made above.

12

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)

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.

A. The generalization is valid only for those, in which last digit of their birth years is greater than four.

B. The generalization is applicable only for those birth years that do not end in two zeroes.

C. This example is not best illustration of the fact  
D. The generalization is valid only for those birth years in which the difference of the last two digits is one  
E. The generalization is valid only for those birth years that ends with 6

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

Q: In case A spoke immediately after L and immediately before O, and O was not the last speaker, L spoke

13

A chemist is preparing a nutrient 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 nutrient

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

Q: Which of the following cannot be included in a nutrient that contains E?

14

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: If Rubina was born in KPK, then she is a citizen of Pakistan. The statement above can be deduced from which of the following statement?

A. Every citizen of the Pakistan is resident either of one of the province or of one of the tribal area.  
B. Rubina was born either in KPK or in Sindh.  
C. Some people born in KPK are citizens of Pakistan.  
D. Everyone born in Pakistan is a citizen of Pakistan.  
E. Rubina is citizen either of Pakistan or of any other country.

15

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: Some critics are of the opinion that the intrinsic qualities of photography depend on criticism and hence it is a matter of opinion. It is rather odd, though, that in a legal connection, serious critics themselves quite often behave as if they believed criticism

A. The qualities of photography are not dependent on criticism.  
B. Critics seem hypocritical.  
C. People can not judge the art work  
D. Photography is an art independent of your opinion

CONNECTION, SERIOUS CRITICS THEMSELVES QUITE OFTEN BEHAVE AS IF THEY BELIEVED CRITICISM TO BE A MATTER OF OPINION. WHY BE A CRITIC AND TEACH IN UNIVERSITIES - IN CASE CRITICISM INVOLVES NOTHING BUT UTTERING CAPRICIOUS AND ARBITRARY OPINION? IN THE ABOVE ARGUMENT THE AUTHOR IS TRYING TO CONVINCE THAT

E. ARTISTS SHOULD TEACH AT UNIVERSITIES.

16

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: MANY PEOPLE ESPECIALLY THE EXPERTS IN THE FIELD OF FORESTRY ARE AGAINST ALL FOREST FIRES. THEY DEMAND THAT ALL FOREST FIRES SHOW THAT IN THE LONG RUN, FOREST FIRES MAY IN FACT, BE BENEFICIAL TO THE ECOLOGY AS A WHOLE. AMONG THE FOLLOWING, WHICH STATEMENT WOULD LOGICALLY FOLLOW FROM ONE OF THE OBSERVATIONS REFERRED TO IN THE PASSAGE ABOVE?

- A. THE REASON OF ALMOST ALL FOREST FIRES IS NATURAL.
- B. HUMAN BEINGS TRY TO EXTINGUISH THE FIRE FOR GAINING HEAT.
- C. STUDIES INDICATE THAT FOREST FIRES REGULARLY OCCURRED IN THE TIMES PRIOR TO HUMAN OCCUPATION OF FOREST AREAS.
- D. THE ANIMAL AND PLANT LIFE DESTROYED BY FOREST FIRES Seldom REPRESENTS ENDANGERED SPECIES.
- E. OCCASIONALLY, THE SMALL FIRE PREVENTS A LARGE SCALE FIRE BY THE ACCUMULATION OF FLAMMABLE MATERIALS.

17

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: WHICH AMONG THE FOLLOWING IS THE PAIR OF FILMS THAT CANNOT BE SHOWN RIGHT BEFORE E?

- A. A AND B
- B. A AND D
- C. B AND C
- D. B AND D
- E. C AND D

18

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.

- 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.

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?

19

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Q: IN CASE, SWITCH A IS OFF IN THE SECOND SETTING. WHICH OF THE FOLLOWING COULD HAVE BEEN THE DEFAULT SETTING?

20

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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.