

Analytical Test for HEC HAT 4 Biological, Medical Sciences

Sr	Questions	Answers Choice
1	Choose the answer you think is most appropriate among the given options. 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 shown earlier than C. B must shown earlier than D. E should be the fifth film shown. 35. 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.
2	Choose the answer you think is most appropriate among the given options. Two or more tealeaves out of five varieties-- Livana, Mathia, Novajana, Oxia, and Piask are used in making all branded blends 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. 10. Among the following which combination cannot be used together in an agreeable brand containing two or more types of tealeaves?	A. Livana and Mathia B. Livana and Novajana C. Livana and Piask D. Mathia and Oxia E. Piask and Novajana
3	Choose the best answer; that is the response that most accurately and completely answers the question. 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. 19. Which among the following options would most strongly contradict the author's attitude towards society?	A. The greatest strength 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.
4	Choose the answer you think is most appropriate among the given options. Four captains and the first mates of three of them were called to attend the annual meeting at head quarters. 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) 19. 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 sometime Before L. E. O spoke sometime Before N.
5	Choose the best answer; that is the response that most accurately and completely answers the question. Many people especially the experts in the field of forestry are against all forest fires. They demand that all forest fires should be extinguished and let the forest die out by their own. The study of 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.
6	Choose the answer you think is most appropriate among the given options. Four captains and the first mates of three of them were called to attend the annual meeting at head quarters. 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) 23. 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 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.
7	Choose the best answer; that is the response that most accurately and completely answers the question. 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 Kings 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.
8	Choose the answer you think is most appropriate among the given options. On a factory control room, there are three ON-OFF switches on central control panel, labeled A, B, and C. They are changed from 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	A. A ON, B ON, C ON. B. A ON, B OFF, C ON. C. A ON, B OFF, C OFF.

	only switches On in the default setting, then turn the 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 all switches, if any that are ON.29. In case in default setting the swithes A and B are ON and the switch C is OFF, then what could be the second setting?	D. A OFF, B ON, C OFF. E. A OFF, B OFF, C ON.
9	Choose the answer you think is most appropriate among the given options.On a factory control room. there are three ON-OFF switches on central control panel, labeled A, B, and C, They are changed from 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 the 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 all switches, if any that are ON.34. 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.
10	Choose the best answer; that is the response that most accurately and completely answers the question.Follow is 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 _____,7. 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 NWFP D. One's own subconscious E. The great sprawling cities of the upper Pakistan
11	Choose the answer you think is most appropriate among the given options.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 papers in the morning session before the lunch break whereas the other three will be presented in the afternoon session. The lectures have to be scheduled in such a way that they comply with the following restrictions:B's 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.46. B could be placed for any of the following places in the order of presenters EXCEPT	A. First B. Second C. Third D. Fourth E. Fifth
12	Choose the best answer; that is the response that most accurately and completely answers the question.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 is true supports professor Taimoor's suggestion?	A. Students evaluation of teachers is a wrong method. B. Students opinions against teachers are filtered during course. C. Professor Taimoor had received low rating from his students. D. Teachers are not interested in any survey. E. Students show interest in teacher evaluation.
13	Choose the answer you think is most appropriate among the given options.On a factory control room. there are three ON-OFF switches on central control panel, labeled A, B, and C, They are changed from 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 the 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 all switches, if any that are ON.30. In case only switch 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.
14	Choose the best answer; that is the response that most accurately and completely answers the question. One's ability to adjust in environment successfully leads to happiness. Wat 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 weaklings 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.5. What response would the author of the above discussion come up with in the case of the objection that the weaklings far exceed strong people?I He would respond with the statement that the person making the objection is a weakling.II He would respond by saying that weaklings will be miserable no matter what happiness.III He would respond with the statement that the strong would be frustrated if the weaklings are destroyed.	A. I only B. II only C. III only D. I and II only E. II and III only
15	Choose the answer you think is most appropriate among the given options. 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.Committees A should consist of exactly one member more than that of committees B.It is possible that there are no members of committees 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.17. Among the following combinations which could constitute the membership of committee C?	A. Y and T B. X and U C. Y, X and W D. W, V and U E. Z, X, U and R
16	Choose the answer you think is most appropriate among the given options.Four captains and the first mates of three of them were called to attend the annual meeting at head quarters. 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)22. 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?	A. O spoke immediately after G B. The order of the first four speakers was M, G, N, D C. O's first fourth mate was present D. A was the fourth speaker after M E. The captains spoke in the order M, N, O, L
17	Choose the best answer; that is the response that most accurately and completely answers the question.About 20 percent of Pakistani husband think that wives with school going children to work outside the home. Only 10 percent of Iranian husband approves of mothers working if school going children live at home.Every day Pakistani wife and every third Iranian wife with school going children have a job outside the home. If above statement is correct	A. Iranian women have fever children than Pakistani women. B. Iranian husband would seem to be less satisfied about working wives who have school going children than Pakistani husbands. C. More Iranian than Pakistani wives work outside the home. D. Iranian husband is better man

wire with school going children has a job outside her home. If above statement is correct, which of the following must be true?

- D. Iranian husband is having more conservative attitudes than Pakistani husbands are.
- E. Employment opportunities for Pakistani wives are greater than for Iranian wives.

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Choose the answer you think is most appropriate among the given options. New species of bacteria A, causes the infectious disease A. The first symptoms appear after two days since the bacteria A enters the body of the victim. The carrier for the bacteria is some flies, mosquitoes, and bees. A mosquito bit Javed on Monday, February 6. Farooq worked with Javed the next day, Tuesday, February 7. There were no other possibilities of exposure to disease A. In a particular code, the digits from 0 to 9 inclusive are each represented by a different letter of the alphabet, the letter always representing the same digit. In case the following sum holds true when it is expressed in digits, which of the following cannot be properly inferred:

- A. Z cannot be 0.
- B. Z must be less than 5.
- C. Q must be even.
- D. M + S must be greater than 8.
- E. C must be greater than Z by 1.

19

Choose the best answer; that is the response that most accurately and completely answers the question. In an in vitro study 160 white cats were injected with Salt X. 160 other white cats were injected with placebo. In two weeks 39% of the white cats who were injected with Salt X showed symptoms of Key fever. Hence it can be concluded that key fever is caused by some elements similar to the elements in Salt X. 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 Key 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 Key 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 Key fever.

20

Choose the best answer; that is the response that most accurately and completely answers the question. A greater number of computers are sold in Sahiwal than in Burewala. therefore the people of Sahiwal are better informed about world events than are the people of Burewala. Each of the following if true weakens the conclusion above EXCEPT:

- A. Sahiwal has a larger population than Burewala.
- B. Most people of Burewala work on Sahiwal.
- C. Each person of Sahiwal spends less time in surfing internet than does a person in Burewala.
- D. The internet bandwidth is 128 kbps in both towns,
- E. Bandwidth usage of Burewala is more than that of Sahiwal.