CHAPTER – 5

ORDERING, SEQUENCING AND COMPARISONS

Order / Sequence:

The term "Order" / "Sequence" is self-explanatory. In questions for this category, you will be asked to deal with relative positions of subjects. The absolute values of the subjects is not what you should be interested in. It is comparison between different subjects that you have to deal with. The data also specifies the relationships like "A is greater than B" or "C is not less than D" and so on. You have to decide the positions of the subjects in ascending or descending order on the parameters given. The subjects of comparison can be people or things.

In short, data will be given to compare the quality or quantity. The parameters on which the subjects are compared can be heights or weights of people, the money with them, complexion, sizes of things, etc.

In such questions, you will come across typical statements like "A is taller than B," "B is not shorter than C", and so on.

You may use the following symbols to symbolically represent the conditions given and then later, represent all the subjects pictorially.

Greater than >
Less than <
Greater than or equal ≥
Less than or equal ≤.
"Not greater than" is the same as "less than or equal to." Similarly, "not less than" is the same as "greater than or equal to".

Words like "Who, And, Which, But" used in the data play a significant role in analysing the data. "AND" and "BUT" play the same role whereas "Who" and "Which" play the same role.

Let us take one statement.

"A is taller than B, who is shorter than C and taller than D but shorter than E, who is taller than F and G but shorter than H".

By using appropriate symbols, the above statement can be represented as follows.
A > B; B < C; B > D; B < E; E > F; E > G; E < H
Questions on the above data can be as follows.

(i) Who is the tallest?
(ii) Who is the shortest?
(iii) Who is the second tallest in the group?, etc.

Let us take some examples.

Directions for questions 1 to 5: Read the information given below and answer the questions that follow.

A, B, C, D and E are five cars while P, Q and R are three motorcycles. A is the fastest of the cars and R is the slowest of the motorcycles. C is costlier than D and Q but cheaper than B. Among cars, A is not the costliest. D is cheaper than E and there is no car whose cost lies between the cost of these two. E is faster than three of the cars and all the motorcycles. Q is costlier than R but cheaper than P, who is faster than Q.

1. Which of the following cars cannot stand exactly in the middle position among cars as far as their cost is concerned?
(A) A (B) C (C) E (D) D

2. Which of the following statements is true about the motorcycles?
(A) P is the costliest as well as the fastest motorcycle.
(B) The fastest motorcycle is not the costliest motorcycle.
(C) The slowest motorcycle is also the cheapest motorcycle.
(D) Both (A) and (C)

3. If P is costlier than E, how many cars are cheaper than P?
(A) 1 (B) 2
(C) 3 (D) Cannot be determined

4. If P is cheaper than A which is not costlier than E, which of these is the cheapest of all the cars and motorcycles put together?
(A) R (B) Q
(C) E (D) Either (A) or (B)

5. Which of these is the slowest of the cars, if B and C are faster than D?
(A) B (B) D (C) E (D) A

Solutions for questions 1 to 5:

Let us first write down all the comparisons given for costs and speeds. Then we will tabulate them.

Speed

A → fastest car
E → Faster than three of the cars ➔ E is the second fastest car
R → slowest motorcycle
P > Q
Cost
C > D
C > Q
B > C
A → Not the costliest among cars
E > D → No other car lies between these two
Q > R
P > Q
Now let us tabulate this data.

Speed

Cars

Fastest	A	E				Slowest

Motorcycles

Fastest	P	Q	R	Slowest

Cost

Cars

Costliest	B C E D	Cheapest

Here, we know that A is not the costliest car but we do not know where it will fit in. It can come anywhere after B except between E and D.

Motorcycles

Costliest	P	Q	R	Cheapest

In addition to the above, we have to also keep in mind that C > Q in cost. (From this we can conclude that B > Q, B > R, C > R in cost).

1. In terms of cost of the cars, A can come between B and C or between C and E or to the right of E. In each of the above cases, the middle car will be C, A and E respectively. Hence, among the cars given, D cannot be in the middle. Choice (D)

2. By looking at the tables above, we can make out that choices (A) and (C) are both correct and hence, the correct answer is Choice (D).

3. If P is costlier than E, we can also conclude that it is costlier than D but we cannot conclude anything about the relationship between the cost of P and that of B, C and A. Choice (D)

4. Since A is not costlier than E, it means that A is at the same level of E or cheaper than E. We cannot conclude which of these two positions A is in. Hence, we cannot conclude which the cheapest of all the vehicles is. {Please note that if A is the cheapest car, then R will be the cheapest of all the vehicles. However, if A is at the same level as E in cost, then there is a possibility of R or D being the cheapest of all the vehicles.} Choice (D)

5. If B and C are faster than D, then the order will be as follows:

1	2	3	4	5
A	E	B/C	C/B	D

Hence, D is the slowest of all the cars. Choice (B)

Directions for questions 6 to 10: Read the information given below and answer the questions that follow.

J, K, L, M and N are five boys in a class. They are ranked in the order of heights – from the tallest to the shortest – and in order of cleverness – from the cleverest to the dullest. K is taller than N, but not as clever as J and L, whereas M is the cleverest of all but shorter than J. While L is shorter than M but taller than K, L is not as clever as J. No two persons got the same ranks in any of these parameters.

6. Who is the third in the order of heights?
(A) J (B) N (C) K (D) L

7. If N is not the last in at least one of the two comparisons, which of the following is the dullest of all the five?
(A) K (B) L (C) M (D) J

8. If J is the third in order of cleverness, who is the second cleverest?
(A) M (B) N (C) L (D) J

9. Who among the following is cleverer as well as taller than K?
(A) M, L and J (B) N
(C) L and N (D) Cannot be determined

10. How many people are definitely shorter than K?
(A) 1 (B) 2 (C) 3 (D) 4

Solutions for questions 6 to 10:

Let us first write down all the conditions given and then tabulate the data.

Cleverness
J > K
L > K
M is the cleverest.
J > L

Height
K > N
J > M
M > L
L > K

Now let us put together all the information we have.

Cleverness

Cleverest	M J L K	Dullest

We do not know where N will come in the order of cleverness but he will definitely be after M.

Height

Tallest	J M L K N	Shortest

6. From the table above, we can clearly see that L is ranked third in order of heights. Choice (D)

7. N is the last in terms of height. Since we are given that he is not the last in at least one of the lists, he CANNOT be the last in cleverness. So, K is the dullest of all. Choice (A)

8. If J is the third in the order of cleverness, as can be seen from the table above, N is the second clever. Choice (B)

9. By looking at the tables we made above and from the answer choices, we find that L, J and M are taller as well as cleverer than K. Choice (A)

10. Only N is shorter than K. Choice (A)

Directions for question 11: Select the correct alternative from the given choices.

11. P, Q, R, S, and T are five girls competing in a running race. R and P have at least two girls ahead of each of them. T and P do not have more than one girl behind each of them. Assuming no one takes over any other players who arrives at the finishing line after two girls as well as before two other girls, if no two girls finish the race at the same time?
(A) Q (B) S (C) T (D) R

Solution for question 11:

11. R and P have at least two girls before them ➔ R and P have to be in two out of 3rd, 4th and 5th positions.
T and P have not more than one girl behind each of them ➔ T and P have to be in the 4th or 5th positions.
The above two statements together mean that R will have to be in the third position.
Choice (D)

Exercise – 5(a)

Directions for questions 1 to 5: Select the correct alternative from the given choices.

1. K, L, M, N, O and P are six trees in a garden. Neither M nor N is the tallest tree. Tree L is taller than P but shorter than tree K. Tree O is as tall as P but taller than M. Which of the following trees is the tallest?
(A) O (B) M (C) K (D) L

2. When the reports of the annual profits of five companies were submitted, it was found that no two companies had the same profit. B got more profit than D but less than E, whereas A got more profit than C but less than E. Which of the following companies got the highest profit?
(A) A (B) E (C) B (D) D

3. Six persons A, B, C, D, E and F leave for the station in such a way that C leaves before F leaves and after D leaves, whereas E leaves before B leaves, who leaves before F leaves, but A leaves after both F and C leave. Who is the last person to leave?
(A) B (B) A (C) C (D) D

4. A poem has seven lines, each of which starts with the letters P, Q, R, S, T, U and V. The line starting with R is the third from the bottom and the line starting with V is the second from the top. The line starting with Q and that starting with U have exactly three lines in between. Either S or P is the only letter between R and U. The poem is likely to start with
(A) T or S or only Q.
(B) T or R or only V.
(C) Only T or only S or only P.
(D) T or S or only R.

5. There are five boxes of five different colours – Orange, White, Blue, Green and Red – each one of them is of a different weight and different cost and are numbered from 1 to 5, from the heaviest to the lightest and the costliest to the cheapest in that order. The Blue box is the 4th in the order of weights and costlier than the Red box, whereas Green box is the lightest of all. The Orange box is the cheapest of all the boxes. The Red box is lighter than the White box and heavier than the Orange box. Which of these is the heaviest of all the boxes?
(A) Orange box (B) White box
(C) Green box (D) Blue box

Directions for questions 6 to 8: These questions are based on the following information.

A television program conducts a game among the participants and gives a total prize amount of 150 lakhs to the participants based on three rounds in the game. 50% of the prize money is given in the acting round, 40% in the singing round, and 10% in dancing round. In each round the prize money is given in the ratio 6 : 4 : 3 : 2 to the 1st, 2nd, 3rd and 4th rankers respectively. The following is the information about the top four rankers in the three rounds. (rank 1 is the best rank, rank 4 is the least rank.)

(i) Ajay did not get a better rank than Vijay in acting but he got a better rank than Vijay in dancing.
(ii) Vinay got a better rank than Sanjay in acting.
(iii) Only Ajay is between Vijay and Sanjay as far as ranks in dancing is concerned.
(iv) Vijay got a better rank than Sanjay in singing round but did not get a better rank than Sanjay in acting round.
(v) Ajay did not get a better rank than Vinay in dancing but he got a better rank than Vinay in singing.
(vi) Only Sanjay is between Ajay and Vijay as far as ranks in singing is concerned.

6. Who got the same rank, in all the three rounds?
(A) Vinay (B) Ajay (C) Sanjay (D) None

7. Who got the least prize amount?
(A) Vinay (B) Sanjay (C) Vijay (D) Ajay

8. As per the rank in dancing round alone, how much prize amount does Ajay get (in lakhs)?
(A) 6 (B) 4 (C) 3 (D) 2

Directions for questions 9 to 12: These questions are based on the following data.

P, Q, R, S and T are five cars. It is further known that T is faster and more powerful than R, which is costlier than T. P is costlier than R and faster than Q, which is more powerful than T. S is the slowest and the cheapest of all the cars, but is the most powerful. R is more powerful and faster than P but is the third costliest.

9. Which of the following cars is the fastest?
(A) P (B) Q (C) R (D) T

10. Which of the following cars has as many cars more powerful than it as the number of cars less powerful than it?
(A) P (B) Q (C) R (D) T

11. Which of the following cars has two cars faster than it and as many cars slower than it?
(A) S (B) T (C) P (D) Q

12. Which of the following cars can be the costliest?
(A) R (B) S (C) T (D) Q

Directions for questions 13 and 14: These questions are based on the following information.

P, Q, R are three girls and A, B, C are three boys. Q is taller than R but shorter than C, who is taller than A. P is taller than B, who is taller than C.

13. Who is the tallest of all the six?
(A) P (B) Q (C) C (D) A

14. Who is the shortest of the three girls?
(A) P (B) Q
(C) R (D) Either (A) or (B)

Directions for questions 15 to 17: These questions are based on the following information.

The inter college competitions in each of the years 2009, 2010, 2011, 2012 and 2013 is going to be conducted by a different college among A, B, C, D and E, not necessarily in the same order. The estimated expenditure to conduct the competitions in each of these

years is different and is one among ₹2 lakhs, ₹3 lakhs, ₹4 lakhs, ₹5 lakhs, ₹6 lakhs, not necessarily in the same order. The estimated number of students participating in the competition in each of these years is different and is one among 1000, 1200, 1500, 1600 and 2000, not necessarily in the same order. The following information is also known about the competitions.

(i) A is going to conduct the 2012 competition and the estimated expenditure of the competition which is going to be conducted by B is ₹6 lakh.
(ii) The estimated expenditure of the competition which is going to be conducted by D is ₹2 lakh more than that by A.
(iii) The estimated expenditure per student of the competition which is going to be conducted by E is ₹400.
(iv) The estimated expenditure per student in 2012 is ₹300 less than that in 2011.
(v) The estimated expenditure per student in 2013 is half of that in 2009.
(vi) The estimated expenditure (in rupees) per student by each college is an integer.

15. What is the estimated expenditure in 2013?
(A) ₹5 lakhs (B) ₹4 lakhs
(C) ₹3 lakhs (D) ₹2 lakhs

16. What is estimated expenditure per student in the competition which is going to be conducted by D?
(A) ₹200 (B) ₹250
(C) ₹500 (D) ₹400

17. The estimated expenditure per student in which college is the least?
(A) A (B) B (C) C (D) D

Directions for questions 18 to 20: These questions are based on the following information.

A total of 40 apples are distributed among A, B, C, D, E and F. The number of apples with A, B, C, D, E and F respectively are in decreasing order. Further we know the following information.

(i) The number of apples with B is twice that with the D.
(ii) The number of apples with C is thrice that with the E.
(iii) The difference in the number of apples with A and B is same as that with E and F.

18. What is the number of apples with D?
(A) 3 (B) 4 (C) 5 (D) 6

19. What is the difference in the number of apples with B and that with F?
(A) 7 (B) 8
(C) 9 (D) Cannot be determined

20. What is the total number of apples with A and that with F?
(A) 13 (B) 12
(C) 11 (D) Cannot be determined

Directions for questions 21 to 25: These questions are based on the following information.

A,B and C are the children of X, and all of them always speak the truth. (X bought some black hats and same white hats). The hats are in either black or white colour but not both.

He puts the hat on each of A, B, and C. Now they sat in a row one behind the other such that A can see both B's hat and C's hat, B can see only C's hat.

C can see none of the hats. No one can see his own hat, but can listen to what others say and X asks questioning in alphabetical order. All of them are aware of this arrangement.

21. If X says that a "atleast one of you has a black hat" and A says "I know the colour of my hat," which among the following is the respective order of hat colours of A, Band C?
(A) black, white, black
(B) white, black, white
(C) black, black, black
(D) black, white, white

22. If 'X' says that "at least one of the three has a white hat" and then A says "I don't know the colour of my hat" and to which B responds by saying "I still don't know the colour of my hat". Which among the following is the respective order of hat colours of A, B and C?
(A) black, white, white
(B) white, white, white
(C) black, black, white
(D) Cannot be determined

23. if there are three black and two white hats, and A says I know the colour of my hat, which of the following is definitely true?
(A) B can know the colour of his hat.
(B) All the three have black hats on them.
(C) X is left with only black hats
(D) More than one of the above

24. If there are three black and two white hats and both A and B say "I don't know the colour of my hat, then which of the following is definitely false?
(A) C is wearing white hat.
(B) B is wearing white colour hat
(C) Both B and C can wear white colour hats
(D) C can wear black colour hat

25. If there are 4 black hats and one white hat, A says I know the colour of my hat and then B says I know the colour of my hat then which of the following is definitely true?
(A) C wearing white hat
(B) C wearing black hat.
(C) B wearing black hat
(D) C don't know the colour of his hat.

Directions for questions 26 to 30: these questions are based on the following information.

Top 80 players participated in the knock out badminton tournament. This tournament has 6 knock out rounds before the final, i.e., first round, second round, third round, fourth round, quarter finals and semi finals. In the first round, the highest seed player (seed 1) plays the lowest seeded player(seed 80) and this match is designated as match no 1 of the first round; the 2nd seeded player plays the 79th seeded player and this match is designated as match no.2 of the first round and so on. Thus, for instance, match no.40 the first round is played between the 40th seeded and the 41st seeded players. In the second round, the winner of match no.1 of

the first round plays the winner of the match no.40 of the first round and this match is designated as match no.1 of the second round. Similarly, the winner of match no 2 of the first round plays the winner of the match no.39 of the first round and this match is designated as match no.2 of the second round. Thus, for instance, match no 20 of the second round is to be played between the winner of match no 20 of the first round and the winner of match no.21 of the first round. The same pattern is followed for later rounds as well. A **bye** takes place when odd number of persons qualifies for the next round and the preference will be given for top seed player among them. The same player will not get bye in two consecutive rounds. An upset is said to have taken place if a lower seeded player beats a higher seeded player.

26. What is the number of byes that take place in the tournament?
(A) Zero (B) One
(C) Two (D) Three

27. If there are no upsets in the tournament, with whom does seed 4 player plays in the quarter finals?
(A) seed 3 (B) seed 6
(C) seed 2 (D) seed 7

28. If the only two upsets in the tournament are one each in the quarter final and the semi final, which of following pair can play in the final?
(A) seed 1 and seed 2
(B) seed 2 and seed 3
(C) seed 2 and seed 4
(D) seed 2 and seed 5

29. If the only upset was in the semi final who wins the final match assuming no further upsets?
(A) seed 3
(B) seed 4
(C) seed 2
(D) seed 1

30. If seed 50 player reaches the third round who among the following players cannot be his opponent?
(A) seed 30
(B) seed 48
(C) seed 51
(D) seed 11

Exercise – 5(b)

Directions for questions 1 to 4: Read the given data carefully and answer the questions that follow.

A, B, C, D and E are five students in a class. A is cleverer than B but scores less marks than D. C is cleverer than B and also scores more marks than B. E is the least clever of all but scores more marks than C. The order of the five students is 1 to 5 from the cleverest to the least clever and from highest scorer to the least scorer.

1. If D is the cleverest, then which of the following can be the order of the five students starting from the cleverest to the least clever?
(A) D, C, B, E and A
(B) D, B, A, C and E
(C) D, C, A, B and E
(D) D, A, B, C and E

2. If B is cleverer than D, then who can be the cleverest of all?
(A) B (B) C (C) A (D) A or C

3. If C stands second in terms of marks scored, then who gets the third position?
(A) D (B) B
(C) A (D) Cannot be determined

4. Which of the following students is cleverer than and also scores more marks than two other people?
(A) A (B) B
(C) C (D) Cannot be determined

Directions for questions 5 to 8: These questions are based on the following information.

Four students - Praneeth, Rajesh, Sravan and Tarun got the top four ranks in Quant, Reasoning and Verbal. For each student, the ranks in no two subjects is the same. In each subject, no two students got the same rank. We know the following additional information.

(1) The sum of the ranks of no two students is the same.
(2) Rajesh got the first rank in Quant, Praneeth got the third rank in Reasoning and Tarun got the fourth rank in Verbal.
(3) The sum of the ranks of Sravan is the highest.
(4) The rank of Rajesh in Reasoning is not same as the rank of Sravan in Verbal.

5. Who got the third rank in Quant?
(A) Tarun (B) Praneeth
(C) Sravan (D) Either (A) or (B)

6. What is the sum of the ranks of Praneeth?
(A) 8 (B) 7
(C) 6 (D) Either (A) or (B)

7. Who got the second rank in Verbal?
(A) Praneeth (B) Rajesh
(C) Sravan (D) Either (A) or (B)

8. What is the sum of the ranks of Rajesh?
(A) 6 (B) 7
(C) 8 (D) Either (A) or (B)

Directions for questions 9 to 12: These questions are based on the following information.

Six persons – Anil, Sunil, Bunty, Chanty, Tarun and Varun are of different heights and weights. They are given ranks according to the descending order of their heights and weights such that the heaviest person is the first ranker and lightest person is the sixth ranker in weight category and the tallest person is the first ranker and the shortest person is the sixth ranker in the height category.

(1) The rank of Bunty in each of the categories is the same as the rank of Tarun in the other category.
(2) Varun is heavier as well as taller than both Sunil and Chanty.
(3) No person got the same rank in both the categories.

(4) Anil is the fifth shortest and Chanty is the fourth heaviest.
(5) Sunil is taller than at least two persons.
(6) Tarun is shorter than Sunil, and Bunty is heavier than Anil.

9. Who got the third rank in weight?
(A) Sunil (B) Tarun
(C) Varun (D) Either (A) or (B)

10. What is the rank of Chanty in weight?
(A) 2 (B) 3 (C) 4 (D) 5

11. What is the rank of Bunty in height?
(A) 4 (B) 3 (C) 2 (D) 1

12. What is the sum of the ranks of Varun?
(A) 7 (B) 6 (C) 3 (D) 5

Directions for questions 13 to 15: These questions are based on the following information.

A green grocer sells five types of vegetables – Carrot, Tomato, Brinjal, Cabbage and Cauliflower. Tomato is more fresh and heavier than Cauliflower. Carrot is heavier than Brinjal and more fresh than Cabbage. Cabbage is heavier than Tomato, but less fresh than Cauliflower. Brinjal is heavier than Tomato, but less fresh than it.

13. Which of the following must be the least fresh of all the vegetables?
(A) Cabbage (B) Carrot
(C) Tomato (D) Cabbage or Brinjal

14. If Cabbage is the heaviest of all, then the second heaviest can be
(A) Brinjal (B) Cauliflower
(C) Tomato (D) Carrot

15. If Carrot is not the freshest of all the vegetables, then which of the following is the most fresh of all of them?
(A) Cabbage
(B) Tomato
(C) Cabbage or Brinjal
(D) Brinjal or Tomato

Directions for questions 16 to 18: These questions are based on the following information.

Seven boys – A, B, C, D, E, F and G are standing in a row in alphabetical order from left to right in the increasing order of their weights (in kgs). The weights of all the seven boys are distinct 2-digit numbers. The following is the additional information known about them.

(i) E's weight is the average of D's, F's and G's weights.
(ii) D's weight is the average of the weights of two boys, one whose weight is a perfect square and the other, whose weight is a perfect cube.
(iii) G's weight is the sum of B's weight and D's weight.
(iv) B's weight is 10 kg less than the weight of the person whose weight is a perfect square.
(v) A's weight is a multiple of 9.

16. F's weight is ____ (in kgs).
(A) 67 (B) 65
(C) 66 (D) Cannot be determined

17. What is the difference between G's weight and A's weight? (in kgs)
(A) 48 (B) 58 (C) 68 (D) 52

18. What is the weight of all the boys together? (in kgs)
(A) 336 (B) 436
(C) 326 (D) Cannot be determined

Directions for questions 19 to 21: These questions are based on the following information.

Six teams A, B, C, D, E and F play a game. In the first round of the game every team plays with every other team exactly once. If a team wins, it scores 40 points, if it loses, it loses 10 points and a draw results in 20 points for each team. After the first round, the top two teams advance to the finals.

The following are the results of the first round.
(i) Team C neither won nor lost a match.
(ii) Teams B and E lost exactly one match.
(iii) Team F lost exactly three matches.
(iv) Team D won as well as lost exactly two matches.
(v) Team A lost exactly two matches.
(vi) The match played between team E and team F was drawn.

19. Which of the following teams advanced to the finals?
(A) A, B (B) A, E (C) B, E (D) B, C

20. Which of the following teams scored the same number of points at the end of the first round?
(A) B, D (B) A, D (C) D, E (D) None

21. The total number of winners in the first round is ____.
(A) 10 (B) 9
(C) 8 (D) Cannot be determined

Directions for questions 22 to 25: These questions are based on the following information.

Four persons A, B, C and D participated in a bike racing competition on Road W, which is a north south road. The race distance is 100 km. In every stretch of 20 km, there is one signal post, which controls roads in four directions for a maximum time of 9 minutes. At exactly 8:30 am, all signal turn green towards North on Road W. At all signals, in any direction the signal will be red for duration of 9 minutes. In each stretch, between any two signals, a person travels with uniform speed. The race begins at signal 0 and ends at signal 5. Signal 0, signal 1, signal 2 upto signal 5 are consecutive signals on Road W from South to North. Race will be towards the north direction from signal 0 and will begin at exactly 8:30 am. To travel any stretch between any two signals by any person, the time taken is one among 15 min, 16 min, 20 min and 30 min.

22. If D is travelling with 75 kmph initially, by what earliest time will he reach signal 3?
(A) 9 : 30 (B) 9 : 33 (C) 9 : 42 (D) 9 : 36

23. If B has reached signal 5 at 10:45 am, then at what speed did he travel in all stretches respectively.
(A) (40, 60, 80, 40, 60) (B) (40, 40, 80, 80, 80)
(C) (40, 40, 80, 40, 80) (D) (40, 60, 40, 80, 75)

24. If C has only 4 min halting time at signal 3 and travelled with the initial speed of 80 kmph, then at what time he will reach signal 3.
(A) 9:50 (B) 9:38
(C) 10:02 (D) Either (A) or (B)

25. If A travelled with greater speed on stretch 1 than on stretch 2 and starts at signal 2 at 9:30 am, then what is minimum and maximum halting timings.
(A) (10, 15) (B) (10, 14)
(C) (14, 15) (D) (12, 14)

Directions for questions 26 to 30: These questions are based on the following information.

In a hockey tournament each of the six teams-Pakistan, India, Korea-Japan, China and Thailand played exactly one match against each other team. None of the matches was drawn. The following table gives the details of the goals scored and conceded by each team and the total number of matches they won in the tournament.

Team	Number of wins	Goals scored	Goals conceded
Pakistan	3	5	3
India	5	6	1
Korea	1	3	6
Japan	4	7	3
China	2	5	8
Thailand	0	1	6

It is also known that,
(i) in the match against Korea, China scored 3 goals and conceded 2 goals. The total number of goals in the match between India and Thailand was 3.
(ii) the maximum difference between the goals of any two teams in any match was 2.

26. How many goals did Japan score against China?
(A) 1 (B) 0 (C) 2 (D) 3

27. What is the number of goals scored by Pakistan and China respectively in the match between them?
(A) 0 and 2 (B) 2 and 0
(C) 3 and 1 (D) 1 and 3

28. What is the total number of goals scored in the match between Japan and Pakistan?
(A) 2 (B) 4 (C) 3 (D) 1

29. Which of the following statements must be false?
(A) Pakistan scored one goal against Korea.
(B) Japan scored one goal against Korea.
(C) China conceded three goals to Japan.
(D) China scored one goal against Pakistan.

30. In how many matches, is the goals scored by both the teams put together, more than 2?
(A) 1 (B) 2 (C) 3 (D) 4

Key

Exercise – 5(a)

1. C	6. C	11. C	16. B	21. D	26. C
2. B	7. D	12. D	17. C	22. D	27. A
3. B	8. C	13. A	18. C	23. D	28. C
4. C	9. D	14. C	19. D	24. C	29. C
5. B	10. D	15. D	20. A	25. D	30. B

Exercise – 5(b)

1. C	6. C	11. D	16. C	21. B	26. D
2. D	7. B	12. D	17. B	22. B	27. B
3. D	8. B	13. D	18. A	23. B	28. C
4. D	9. A	14. D	19. C	24. D	29. D
5. A	10. C	15. B	20. B	25. A	30. D