MBA PIONEER 2024

Data Interpretation & Logical Reasoning

DPP: 4

Games & Tournaments

Directions (1-5) Read the following passage and answer the given questions.

Six teams participated in a Hockey Match and the winner was decided by the round-robin system of playoffs – each team played one match with every other team. 2 points were awarded for a win, 1 for a draw and no points for a loss. A scored 10 points while B scored 8 points. C had 3 draws while D scored only one point. E and F both won exactly one match each.

Q1 In how many ways can a team score 8 points?

(A) 1 (B) 2
(C) 3 (D) 4

Q2 How many matches did C win?

(A) 0 (B) 1
(C) 2 (D) 3

Q3 How many matches ended in a draw?

(A) 2 (B) 3
(C) 4 (D) 5

Q4 How many teams are ranked above C according to the points scored in the tournament?

(A) 1 (B) 2
(C) 3 (D) 4

Q5 Whom did F defeat?

(A) D (B) C
(C) B (D) A

Directions (6-10) Read the following passage and answer the given questions.

128 players participated in a knockout tennis tournament. The players are ranked from 1 to 128 with rank 1 being the top ranker and rank 128 being the last ranked player. In each round, the winner of a match between two players advances to the next round while the loser is eliminated. This process is repeated till the final round. In the first round, the player ranked 1 plays the player ranked 128, the player ranked 2 plays the player ranked 127 and so on. An upset is said to happen if a lower-ranked player beats a higher-ranked player. The matches are scheduled in such a way that, in case of no upsets, in each round, the highest-ranked player plays the lowest-ranked player left in the tournament, the second-highest-ranked player plays the second-lowest-ranked player left and so on.

Q6 After which round do a prime number of players advance to the next round?

(A) Round 3 (B) Round 4
(C) Round 6 (D) Round 7

Q7 If the tournament had no upsets, in which round was the player ranked 45 eliminated?

(A) Round 1 (B) Round 2
(C) Round 3 (D) Round 4

Q8 How many matches did the player who lost in the semi-finals win in the tournament?

(A) 2 (B) 3
(C) 4 (D) 5

Q9 Which player faced the player ranked 4 in the quarter-finals if the tournament had no upsets?

(A) Rank 5 (B) Rank 6
(C) Rank 7 (D) Rank 8

Q10 At most how many matches did a player who lost to the 8th ranked player win, if no upsets were recorded in the tournament?

(A) 1 (B) 2
(C) 3 (D) 4

Directions (11-15) Read the following passage and answer the given questions.

India, China, France, Nepal, Bhutan and Pakistan, take part in a Hockey tournament where each team plays exactly one match with the rest of the five teams. 2 points are awarded to the winning team, 1 point to each team if the match ends in a draw & no points to the team who loses the match. It is further known that teams Nepal and Bhutan have less than 5 points at the end of the tournament.

The table given below represents the final point table of all six teams at the end of the tournament. However, some of the values have been erased from the table. It is further known that France defeated China and China defeated Pakistan.

Teams	Matches won	Matches lost	Total Points
India		0	8
France		2	6
China		2	5
Pakistan		1	5
Nepal		1	
Bhutan			

Q11 Which team was not defeated by India?

(A) China, Pakistan
(B) Pakistan, Nepal
(C) France, China
(D) None of these

Q12 Which team played the highest number of draws matches during the tournament?

(A) India (B) Pakistan
(C) Bhutan (D) Nepal

Q13 During the tournament, Nepal was defeated by which team?

(A) China (B) Pakistan
(C) France (D) India

Q14 The total number of matches they ended in a draw during the tournament is:

(A) 6 (B) 7
(C) 9 (D) None

Q15 The total points scored by Bhutan at the end of the tournament are

(A) 1 (B) 2
(C) 3 (D) 4

Directions (16-20) Read the following passage and answer the given questions.

Read the following information and answer the question that follows:

64 students participate in a Chess tournament. The student is seeded from 1 to 64, 1 being the best seeded or highest seeded student and 64 being the lowest seeded student. Each round of the tournament follows a knockout format, with winner promoted to the next round and the loser being eliminated from the tournament. In the first round, seed 1 student plays with seed 64, seed 2 plays with seed 63 and so on. An upset is set to happen when a lower seeded Student beats a higher seeded Student. When an upset happens, the lower seeded student retained his seeding but replaces the higher seeded student in the schedule. The matches are scheduled in such a way that, in case of no upsets, in each round, the highest-ranked Student plays with the lowest-ranked Student left in the tournament, the second-highestranked Student plays with the second-lowest-ranked Student left and so on.

Q16 How many rounds were there in the entire tournament?

(A) 5 (B) 6
(C) 7 (D) 8

Q17 How many matches played in the match?

(A) 32 (B) 64
(C) 63 (D) 31

Q18 Is it possible for a student seeded 9 to won the tournament if there are only 2 upsets in the whole tournament?
(A) Yes
(B) No
(C) Can't be determined
(D) None of these

Q19 Which of the following seeded student will never play with seed 7 if there is no upset in the tournament?
(A) 26 (B) 58
(C) 10 (D) 3

Q20 If the student seeded 13 won the tournament, then at least how many upsets will take place?
(A) 2 (B) 3
(C) 4 (D) 5

Directions (21-25) Read the following passage and answer the given questions.

Read the following information and answer the question that follows:

16 Top Indian wrestlers participate in the Indian Wrestling Championship (IWC) for men. These 16 wrestlers are marked from seed 1 to seed 16. Seed 1 considered as higher seed while seed 16 considered as lowest seed. This tournament happens on knock out bases which means if a player loses any match, then he will be eliminated from the games immediately. This tournament happens in such a way that higher seeded player plays with the lowest seeded player if there is no upsets. For example – In round 1, match 1 played between seed 1 and seed 16, match 2 played between seed 2 and seed 15 and so on. In round 2, match 1 played between seed 1 and seed 8 and so on if there is no upset. When an upset happens, the lower seeded wrestler retained his seeding but replaces the higher seeded wrestler in the schedule. The following table represent the list of players with their seed number:

1	A	9	I
2	B	10	J
3	C	11	K
4	D	12	L
5	E	13	M
6	F	14	N
7	G	15	O
8	H	16	P

Q21 How many matches played in all rounds together?
(A) 14 (B) 15
(C) 16 (D) 13

Q22 If C and G lost in the first round then who play against A in semi-final if it is given that A reached semi-final.
(A) D (B) N
(C) F (D) J

Q23 If match 4 in round 1 and Match 3 in round 2 become an upset then who will the one who can play against A in semi-final if it is given that A reached in the semi-final.
(A) M
(B) E
(C) F
(D) Both a and b are possible

Q24 If top 8 seeded players reach the quarter-final then who will not surely play against A in the final if it is given that A reached the final.
(A) B (B) G
(C) C (D) E

Q25 If seed 7 won the tournament, then which of the following can be the first upset caused by him?
(A) Seed 1 (B) Seed 2
(C) Seed 3 (D) Seed 4

Directions (26-30) Read the following passage and answer the given questions.

Five javelin thrower P, Q, R, S, and T thrower in a competition are given six throws to qualify for the finals. Conditions to quality for the finals are:

• A player has to throw average of minimum 85 meters in all six throws.

• If he throws less than 80 meters in any throw that will be consider as foul and distance for the foul throw will be considered as zero '0'.

• A player cannot throw more than 105 meters in any throws.

Note:

All the throws are integer in meters while average can be non-integer.

In his 2nd and 5th attempt, P throws 85 meters and 90 meters respectively.

Q throws two javelin of distances 76 meters and 84 meters in 3rd and 6th throws respectively.

R throws 80 meters and 81 meters in 1st and 6th throw while S throws 100 meters and 78 meters in 2nd and 4th throw respectively.

In his 1st and 5th throws, T throws 82 meters and 88 meters respectively.

Q26 If S qualifies for the finals, then what is the minimum distance that he can throw in any one chance (Exclude the foul throw)?

(A) 90 meters (B) 95 meters
(C) 100 meters (D) 85 meters

Q27 Player T did not qualify for the finals he did not make any foul, then what is the maximum distance he can throw in any one chance?

(A) 100 meters (B) 105 meters
(C) 99 meters (D) 95 meters

Q28 Can player Q qualify for the finals?

(A) Always
(B) Never
(C) Not always but in some conditions
(D) Cannot be determined

Q29 Who among the following may be qualify for the finals even if they did not throw more than 85 and less than 80 meters in all of their remaining 4 attempts?

(A) Only P (B) P, R and T
(C) P and T (D) R and T

Q30 If it is given that in the remaining 4 attempts P scores 85 in 3 attempts then find the score of P in the last attempt.

(A) 70 (B) 80
(C) 82 (D) 85

Answer Key

Q1	(B)
Q2	(A)
Q3	(C)
Q4	(D)
Q5	(A)
Q6	(C)
Q7	(B)
Q8	(D)
Q9	(A)
Q10	(C)
Q11	(B)
Q12	(D)
Q13	(C)
Q14	(A)
Q15	(B)
Q16	(B)
Q17	(C)
Q18	(B)
Q19	(D)
Q20	(C)
Q21	(B)
Q22	(A)
Q23	(D)
Q24	(D)
Q25	(B)
Q26	(B)
Q27	(C)
Q28	(B)
Q29	(C)
Q30	(B)

Hints & Solutions

Q1. Text Solution:

Total matches in the tournament = 15

Number of matches played by each team = 5

For a win 2 points and for a draw 1 point is awarded.

The possibility is (4 win, 0Draw, 1 Loss) or (3Win, 2Draw, 0 Loss).

Hence two ways is the right answer.

Q2. Text Solution:

Total matches in the tournament = 15

Number of matches played by each team = 5

Given that A scored 10 points and B scored 8 points. It means A won all of its matches and B lost only one match. Hence, we can have the following score table-

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX				
D	Loss	Loss		XXXX			
E	Loss	Loss			XXXX		
F	Loss	Loss				XXXX	

It is also given that C had 3 draws. Hence, we have

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX			
E	Loss	Loss	Draw		XXXX		
F	Loss	Loss	Draw			XXXX	

Given that D scored only one point. Hence out of 5 matches played by D, one match resulted in a draw and the rest four in a loss.

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX	Loss	Loss	1
E	Loss	Loss	Draw	Win	XXXX		
F	Loss	Loss	Draw	Win		XXXX	

E and F both won exactly one match. Hence, the only possibility is that the match between E and F resulted in a draw. We have the following final score table

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX	Loss	Loss	1
E	Loss	Loss	Draw	Win	XXXX	Draw	4
F	Loss	Loss	Draw	Win	Draw	XXXX	4

By the above table, C won 0 matches. Hence option A.

Q3. Text Solution:

Solution:

Total matches in the tournament = 15

Number of matches played by each team = 5

Given that A scored 10 points and B scored 8 points. It means A won all of its matches and B lost only one match. Hence, we can have the following score table -

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX				
D	Loss	Loss		XXXX			
E	Loss	Loss			XXXX		
F	Loss	Loss				XXXX	

It is also given that C had 3 draws. Hence, we have

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8

C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX			
E	Loss	Loss	Draw		XXXX		
F	Loss	Loss	Draw			XXXX	

Given that D scored only one point. Hence out of 5 matches played by D, one match resulted in a draw and the rest four in a loss.

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX	Loss	Loss	1
E	Loss	Loss	Draw	Win	XXXX		
F	Loss	Loss	Draw	Win		XXXX	

E and F both won exactly one match. Hence, the only possibility is that the match between E and F resulted in a draw. We have the following final score table

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX	Loss	Loss	1
E	Loss	Loss	Draw	Win	XXXX	Draw	4
F	Loss	Loss	Draw	Win	Draw	XXXX	4

By the above table, 4 matches ended in a draw. Hence answer is 4.

Q4. Text Solution:

Total matches in the tournament = 15

Number of matches played by each team = 5

Given that A scored 10 points and B scored 8 points. It means A won all of its matches and B lost only one match. Hence, we can have the following score table-

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX				
D	Loss	Loss		XXXX			
E	Loss	Loss			XXXX		
F	Loss	Loss				XXXX	

It is also given that C had 3 draws. Hence, we have

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX			
E	Loss	Loss	Draw		XXXX		
F	Loss	Loss	Draw			XXXX	

Given that D scored only one point. Hence out of 5 matches played by D, one match resulted in a draw and the rest four in a loss.

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX	Loss	Loss	1
E	Loss	Loss	Draw	Win	XXXX		
F	Loss	Loss	Draw	Win		XXXX	

E and F both won exactly one match. Hence, the only possibility is that the match between E and F resulted in a draw. We have the following final score table

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX	Loss	Loss	1
E	Loss	Loss	Draw	Win	XXXX	Draw	4
F	Loss	Loss	Draw	Win	Draw	XXXX	4

By the above table, A, B , E and F scored more than C. Hence option D.

Q5. Text Solution:

Total matches in the tournament = 15

Number of matches played by each team = 5

Given that A scored 10 points and B scored 8 points. It means A won all of its matches and B lost only one match. Hence, we can have the following score table-

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX				
D	Loss	Loss		XXXX			
E	Loss	Loss			XXXX		
F	Loss	Loss				XXXX	

It is also given that C had 3 draws. Hence, we have

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX			
E	Loss	Loss	Draw		XXXX		
F	Loss	Loss	Draw			XXXX	

Given that D scored only one point. Hence out of 5 matches played by D, one match resulted in a draw and the rest four in a loss.

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX	Loss	Loss	1
E	Loss	Loss	Draw	Win	XXXX		
F	Loss	Loss	Draw	Win		XXXX	

E and F both won exactly one match. Hence, the only possibility is that the match between E and F resulted in a draw. We have the following final score table

	A	B	C	D	E	F	Points
A	XXXX	Win	Win	Win	Win	Win	10
B	Loss	XXXX	Win	Win	Win	Win	8
C	Loss	Loss	XXXX	Draw	Draw	Draw	3
D	Loss	Loss	Draw	XXXX	Loss	Loss	1
E	Loss	Loss	Draw	Win	XXXX	Draw	4
F	Loss	Loss	Draw	Win	Draw	XXXX	4

By the above table, D is defeated by F. Hence option A.

Q6. Text Solution:

Total number of rounds = 7

128 players will play in the first round, 64 players in the second round, 32 in the third round, 16 in the fourth round, 8 in the fifth(quarter-final) round, 4 in the sixth round(semi-final), and 2 in the seventh(final) round. So, after the sixth round, a prime number of players will advance to the next round.

Answer is round 6, option c.

Q7. Text Solution:

Total number of rounds = 7

128 players will play in the first round, 64 players in the second round, 32 in the third round, 16 in the

fourth round, 8 in the fifth(quarter-final) round, 4 in

the sixth round(semi-final), and 2 in the seventh(final) round.

If there were no upsets, rank 65 to 128 will be eliminated in the first round, and rank 33 to 64 will

be eliminated in the second round. Hence the correct answer is round 2.

Q8. Text Solution:

Total number of rounds = 7

128 players will play in the first round, 64 players in the second round, 32 in the third round, 16 in the

fourth round, 8 in the fifth(quarter-final) round, 4 in

the sixth round(semi-final), and 2 in the seventh(final) round.

The player who was eliminated in the semi-final,

will cross 5 rounds. Hence, they won 5 matches.

Q9. Text Solution:

Total number of rounds = 7

128 players will play in the first round, 64 players in the second round, 32 in the third round, 16 in the

fourth round, 8 in the fifth(quarter-final) round, 4 in

the sixth round(semi-final), and 2 in the seventh(final) round.

If there were no upsets in the tournament, the quarter-final line-up is

Rank 1 → Rank 8

Rank 2 → Rank 7

Rank 3 → Rank 6

Rank 4 → Rank 5

Hence, rank 5 will face rank 4 in the quarter final.

Q10. Text Solution:

Total number of rounds = 7

128 players will play in the first round, 64 players in the second round, 32 in the third round, 16 in the

fourth round, 8 in the fifth(quarter-final) round, 4 in

the sixth round(semi-final), and 2 in the seventh(final) round.

If there were no upsets, the rank 8 player would beat

rank 121 player in the first round, rank 57 player in

the second round, rank 25 player in the third round

and rank 9 player in the fourth round. Out of these

players, rank 9 player will play the maximum number of rounds. Rank 9 player will be eliminated

in the fourth round and Rank 8 player will be eliminated in the fifth round.

Hence, the correct answer is 3.

Q11. Text Solution:

Solution:

Total matches played by 6 teams = 15. Total points awarded = 15 × 2 = 30 points.

Each team played exactly 5 matches.

By the given table, India lost 0 matches and scored 8 points. The only possibility is (3W, 2D, 0L)

France lost 2 matches and scored 6 points. The only possibility is (3W, 0D, 2L).

China lost 2 matches and scored 5 points. The only possibility is (2W, 1D, 2L).

Pakistan lost one match and scored 5 points. The only possibility is (1W, 3D, 1L).

Given that France defeated China and China defeated Pakistan.

	India	France	China	Pakistan	Nepal	Bhutan	Points
India	XXXX						8
France		XXXX	Win				6
China		Loss	XXXX	Win			5
Pakistan			Loss	XXXX			5
Nepal					XXXX		
Bhutan						XXXX	

Since France has 0 Draws, the winner of the France and Pakistan match is Pakistan as Pakistan can not lose more than one match. Hence

	India	France	China	Pakistan	Nepal	Bhutan	Points
India	XXXX			Draw			8
France		XXXX	Win	Loss			6
China		Loss	XXXX	Win			5
Pakistan	Draw	Win	Loss	XXXX	Draw	Draw	5
Nepal				Draw	XXXX		
Bhutan				Draw		XXXX	

Total points scored by Nepal and Bhutan together = 30 – (8+6+5+5) = 6 points.

Given that Nepal and Bhutan scored less than 5 points. So possibilities are-

(1) Nepal 4 points, Bhutan 2 points

(2) Nepal 3 points, Bhutan 3 points

(3) Nepal 2 points, Bhutan 4 points

Possibilities 2 and 3 are ruled out, as Nepal lost one match only and scored less than 5 points. Hence the possibility of Nepal is 4 points (0W, 4D, 1L) and Bhutan 2 points (0W, 2D, 3L). Out of 2 draws of Bhutan, one must be against Nepal. Hence

	India	France	China	Pakistan	Nepal	Bhutan	Points
India	XXXX			Draw		Win	8
France		XXXX	Win	Loss		Win	6
China		Loss	XXXX	Win		Win	5
Pakistan	Draw	Win	Loss	XXXX	Draw	Draw	5
Nepal				Draw	XXXX	Draw	4
Bhutan	Loss	Loss	Loss	Draw	Draw	XXXX	2

Using the discussion in the beginning, we can have the following table

	India	France	China	Pakistan	Nepal	Bhutan	Points
India	XXXX	Win	Win	Draw	Draw	Win	8
France	Loss	XXXX	Win	Loss	Win	Win	6
China	Loss	Loss	XXXX	Win	Draw	Win	5
Pakistan	Draw	Win	Loss	XXXX	Draw	Draw	5
Nepal	Draw	Loss	Draw	Draw	XXXX	Draw	4
Bhutan	Loss	Loss	Loss	Draw	Draw	XXXX	2

India Drew two matches with Pakistan and Nepal.

Hence Option b.

Q12. Text Solution:

Nepal is the one who played the highest number of draws.

Hence option d.

Q13. Text Solution:

Nepal loses match against France.

Hence option c.

Q14. Text Solution:

There will be total 6 matches they ended in a draw during the tournament

Option a will be the correct choice.

Q15. Text Solution:

Bhutan score 2 points at the end of the tournament.

Option b will be the correct choice.

Q16. Text Solution:

Round 1 – 64 team

Round 2 – 32 teams

Round 3 – 16 teams

Round 4 – 8 teams

Round 5 – 4 teams

Round 6 – 2 teams

After 6 round we get our winner.

Number of rounds will be = 6

Hence option (b)

Q17. Text Solution:

Round 1 – 64 teams – 32 matches played

Round 2 – 32 teams – 16 matches played

Round 3 – 16 teams – 8 matches played

Round 4 – 8 teams – 4 matches played

Round 5 – 4 teams – 2 matches played

Round 6 – 2 teams – 1 match played.

Total number of matches = 32 + 16 + 8 + 4 + 2 + 1 = 63

Or one can directly find this as, out of these 64 students, 1 student will be the winner and 63 will be the looser. To eliminate 63 students from the knock out tournament we have to play 63 matches.

Hence option c.

Q18. Text Solution:

Let suppose if every upset is in favour of seed 9 then,

Round 1 – 64 teams – 32 matches – seed 9 plays with seed 56 and seed 9 won – then there is no upset.

Similarly, in round 2 – 32 teams – 16 matches – seed 9 plays with seed 24 and seed 9 won – then there is no upset.

Now, in round 3 – 16 teams – 8 matches – seed 9 plays with seed 8 and seed 9 won – then there is 1 upset because lower seeded student won and higher seeded student lose.

Now, in round 4 – 8 teams – 4 matches – Seed 9 plays with seed 1 and seed 9 won – then there is another upset because lower seeded student won and higher seeded student lose.

Now we have used all upsets.

Now, in round 5 – 4 teams – 2 matches – Seed 9 plays with seed 4 and if seed 9 won then there is another upset which is not possible so in this case seed 4 won the match and seed 9 will be eliminated.

Hence, we can say that seed 9 will never won

the
tournament even if all these two seeds are in their
favour.
Hence option b.

Q19. Text Solution:

In round 2 – Seed 7 plays with Seed 26 so option
(a) cannot be the answer.
In round 1 – Seed 7 plays with Seed 58 so option
(b) cannot be the answer.
In round 3 – Seed 7 plays with Seed 10 so option
(c) cannot be the answer.
In round 4 – Seed 7 plays with Seed 2 so option (d)
will be the correct choice.

Q20. Text Solution:

We need to find the minimum possible upset and make sure that student seeded 13 won the tournament.
Round 1 – seed 13 plays with seed 52 – seed 13 won the match – 0 upset
Round 2 – seed 13 plays with seed 20 – seed 13 won the match – 0 upset.
Round 3 – seed 13 plays with seed 4 – Seed 13 won the match – 1 Upset
From now onwards if seed 13 won the match, then 1 upset will happens.
In round 3, round 4, round 5 and round 6 1 upset happens.
Hence option (c) will be the correct choice.

Q21. Text Solution:

In Round 1 – 8 matches played
In round 2 – 4 matches played
In round 3 – 2 matches played
In round 4 – 1 match is played
Total number of matches – 8 + 4 + 2 + 1 = 15
Hence option (b).

Q22. Text Solution:

In Round 1 – C played against N then we can say that N reach quarter final.
In Round 1 – G played against J then we can say that J reach quarter final.
In Round 2, Participants are A, B, N, D, E, F, J, H
Matches are as follows in Round 2 –

Match 1	Between A and H	A win (Because we need to find who plays against A)
Match 2	Between B and J	May be B or May be J wins (Can't say anything)
Match 3	Between N and F	Anyone from N and F wins (Can't say anything)
Match 4	Between D and E	Anyone from D and E wins (Can't say anything)

In Round 3 – (Semi – finals)

Matches are as follows -

Match 1	Between A and D or A and E
Match 2	Between B and N, or B and F, or J and N, or J and F.

So, we can say that Either D or E will play against A in semi – final.
As we can see our options, option (a) will be the correct choice here.

Q23. Text Solution:

If match 4 in round 1 is an upset, then the participants in round 2 will be,

1	A
2	B
3	C
4	M
5	E
6	F
7	G
8	H

If match 3 in round 2 is an upset, then the participants in Round 3 will be,

1	A
2	B
3	F

4	M or E

Then M or E will be the one who will face A in Round 3.

Q24. Text Solution:

Round 2 will be the quarter final here.

Participants in Round 2 are, A, B, C, D, E, F, G, H.

Participants in Round 3 (Semi-final) are –

1	A
2	B or G
3	C or F
4	D/ E

Participants in Round 4 (Finals)

1	A
2	B or G or C or F

B or G or C or F could be the one who can play against A in Final so we can say that option D will be the correct choice.

Q25. Text Solution:

In round 1 – Seed 7 plays with seed 10 – seed 7 won – no upset

In round 2 – Seed 7 plays with seed 2 – seed 7 won – First upset.

Hence option (b).

Q26. Text Solution:

Table given below shows the distance of throws by five players:

Playes	1st throw	2nd throw	3rd throw	4th throw	5th throw	6th throw
P	----	85	----	----	90	----
Q	----	----	76	----	----	84
R	80	----	----	----	----	81
S	----	100	----	78	----	----
T	82	----	----	----	88	----

Sum of minimum distance in all the six chances that a player needs to throw to qualify for the finals = 85 × 6 = 510 meters

Since T did not qualify for finals which means sum of distances, he throws overall will be less than 510 meters.

Also, he did not make any foul in his all attempts, it means he throw more than or equal 80 meters.

To find the maximum throw in any one chance, suppose he throws minimum possible distance in 3 throws out of remaining 4 throws.

Let he throws 'a' meter in the remaining one throw.

$82 + 88 + 80 \times 3 + a < 510$

$a < 510 - 170 - 240$

$a < 100$

Which means maximum distance T can throw in any one chance is 99 meters.

Q27. Text Solution:

Table given below shows the distance of throws by five players:

Playes	1st throw	2nd throw	3rd throw	4th throw	5th throw	6th throw
P	----	85	----	----	90	----
Q	----	----	76	----	----	84
R	80	----	----	----	----	81
S	----	100	----	78	----	----
T	82	----	----	----	88	----

Sum of minimum distance in all the six chances that a player needs to throw to qualify for the finals = 85 × 6 = 510 meters

Since T did not qualify for finals which means sum of distances, he throws overall will be less than 510 meters.

Also, he did not make any foul in his all attempts, it means he throw more than or equal 80 meters.

To find the maximum throw in any one chance, suppose he throws minimum possible distance in 3 throws out of remaining 4 throws.

Let he throws 'a' meter in the remaining one throw.

$82 + 88 + 80 \times 3 + a < 510$

$a < 510 - 170 - 240$

a < 100

Which means maximum distance T can throw in any one chance is 99 meters.

Q28. Text Solution:

Table given below shows the distance of throws by five players:

Playes	1st throw	2nd throw	3rd throw	4th throw	5th throw	6th throw
P	----	85	----	----	90	----
Q	----	----	76	----	----	84
R	80	----	----	----	----	81
S	----	100	----	78	----	----
T	82	----	----	----	88	----

Sum of minimum distance in all the six chances that a player needs to throw to qualify for the finals = 85 × 6 = 510 meters

In one of his attempts, Q throws 76 meters which is less than 80 meters which will be considered as '0' meters.

Sum of total distances in two given attempts = 0 + 84 = 84 meters

Suppose he throws maximum possible distance in remaining 4 throws.

Sum of his total thrown distance = 84 + 4 ×105 = 84 + 420

= 504 meters

Since minimum qualifying criteria for the finals is 510 meters.

Which means Q can never qualify for the finals.

Q29. Text Solution:

Table given below shows the distance of throws by five players:

Playes	1st throw	2nd throw	3rd throw	4th throw	5th throw	6th throw
P	----	85	----	----	90	----
Q	----	----	76	----	----	84
R	80	----	----	----	----	81
S	----	100	----	78	----	----
T	82	----	----	----	88	----

Sum of minimum distance in all the six chances that a player needs to throw to qualify for the finals = 85 × 6 = 510 meters

Average minimum distance required in remaining 4 attempts by P to qualify for the finals =(510-85-90)/4 = 83.75 meters

Average minimum distance required in remaining 4 attempts by Q to qualify for the finals = (510-0-84)/4 = 106.5 meters

Average minimum distance required in remaining 4 attempts by R to qualify for the finals = (510-80-81)/4 = 87.25 meters

Average minimum distance required in remaining 4 attempts by S to qualify for the finals = (510-100-0)/4 = 102.5 meters

Average minimum distance required in remaining 4 attempts by T to qualify for the finals = (510-82-88)/4= 85 meters

Hence, only P and T will qualify for the finals if they did not throw more than 85 meters and less than 80 meters in their remaining attempts.

Hence option c.

Q30. Text Solution:

Table given below shows the distance of throws by five players:

Playes	1st throw	2nd throw	3rd throw	4th throw	5th throw	6th throw
P	----	85	----	----	90	----
Q	----	----	76	----	----	84
R	80	----	----	----	----	81
S	----	100	----	78	----	----
T	82	----	----	----	88	----

Sum of minimum distance in all the six chances that a player needs to throw to qualify for the finals = 85 × 6 = 510 meters

Required score in the last attempt = 510 – 85 – 90 – 85 × 3 = 80

Hence Option b.