



On the basis of the above study and your knowledge, answer the following questions:

(a) According to the above fixture total number of rounds will be \_\_\_\_\_ .

Ans. 4 (four)

(b) As shown in the fixture if the winner team plays least number of matches, then which number of team is the winner?

Ans. Serial no 15

(c) What is the formula for calculating number of matches in a knockout tournament ?

Ans. No of matches =  $N - 1$  where  $N =$  Number of teams

(d) If 16 teams are participating in a knockout tournament, then how many byes will be given to draw a knockout fixture?

Ans. If the number of participating team is 16, the answer will be 0 (zero) byes If the number of participating team is 19, the answer will be 13 byes

(e) What is the formula for calculating total number of byes in a knockout tournament ?

Ans. No. of byes = (Next higher Power of 2 - Number of Teams)

**4. How 'Sports Day' and 'Health Run' contribute to spread health awareness and harmony? Explain. (2024)**

Ans.

#### **Sports day**

Modern day challenges and needs of today in education give emphasis on other aspects rather than academics for all round development of students. With this objective in mind, each school celebrates sports day as a mark of focus on physical and mental health awareness. It encourages leadership qualities, management and co-ordination among students, teachers and other staff members. Participation in Sports day is an ongoing process to provide recreation, generate awareness and development of ethical values.

#### **Health Run**

The health runs are conducted by various Social, Govt., Non-Govt. Organisations, Health and Sports departments to create awareness about health and fitness.



## Previous Years' CBSE Board Questions

### 1.1 Functions of Sports Events Management

#### MCQ

- In planning, defining procedure means
  - Setting goals
  - Making a policy
  - Formation of rules and regulation
  - Defining course of action. (Term-I, 2021-22)
- If you want to be on the top position in games and sports, you have to adhere to proper sports planning. The attainment of good performance in the field of games and sports depends on effective planning. Following are the objectives of planning, except-
  - Goal orientation
  - Making strategies
  - Facilitate recreation
  - Formation of rule and regulation. (Term-I, 2021-22) (Ap)

#### VSA (1 mark)

- What do you understand by planning in sports? (AI 2019) (R)

#### SA (3 marks)

- Briefly explain the functions of Directing and Controlling to organise sports event. (2023) (U)

### 1.2 Various Committees and their Responsibilities (Pre, During and Post)

#### MCQ

- Logistics committee deals with
  - Accommodation
  - Transportation
  - Medical Staff
  - All of the above (Term-I, 2021-22)
- Choose odd one from the check list of organising a sports event.
  - Accommodation
  - Place of event
  - Art integration
  - Sponsorship (Term-I, 2021-22) (Ap)

#### LA (5/6 marks)

- Explain pre, during and post game responsibilities of officials of various committees for organising a sports tournament smoothly. (Term-I, 2021-22 C) (Ap)

- Suggest the formation of various committees for systematic and smooth conduct of sports day in your school. (AI 2017) (U)
- Your school is organising 'Run for Unity', explain the responsibilities of accreditation, technical and finance committee. (Delhi 2016)

### 1.3 Tournaments-Knock-Out, League or Round Robin and Combination

#### MCQ

- If odd numbers of teams are participating in a Round Robin tournament, then the formula for calculating number of rounds is
  - $N-1$
  - $N(N-1)_2$
  - $N$
  - $N+1$  (Term-I, 2021-22)
- IPL cricket tournament is an example of
  - Knock-out Tournament
  - League Tournament
  - Combination Tournament
  - Single League Tournament. (Term-I, 2021-22)
- In a knockout tournament, 4<sup>th</sup> Bye will be given to
  - Last team of Lower half
  - Last team of Upper half
  - First team of Upper half
  - First team of Lower half. (Term-I, 2021-22)
- Archana a P.E. Teacher of ABC School, sent invitations to 26 teams to play Kho-Kho under Khelo India programme. All teams accepted the invitation. Now, help Archana and suggest her which type tournament she should organise to make the competition successful.
  - Knock-out tournament
  - League tournament
  - Round Robin tournament
  - Berger tournament (Term-I, 2021-22) (Ap)
- League tournament is also known as:
  - Round robin
  - Consolation
  - Knock-out
  - Challenge. (2021 C) (Ap)
- Which one of the following is an advantage of round robin tournament?
  - Time-consuming
  - More number of officials
  - Expensive
  - Decides the real strong team. (2020 C) (Ap)



**VSA (1 mark)**

16. Write any two advantages and two disadvantages of league tournament. (2021 C)
17. How many total number of matches will be played in a knock-out tournament of 20 teams? (2019 C)
18. Suggest any two disadvantages of league tournament. (Delhi 2019) (Ap)
19. Round Robin tournament is of two types. Name them and give one major difference between them. (AI 2017)

**SA (3 marks)**

20. League tournament is a better way to judge the best team of the tournament. Comment. (2020)
21. What are the advantages of league tournament? (2019 C)

**LA (5 marks)**

22. What is the meaning of tournament? Draw knock-out fixture for 27 teams. (Delhi 2017) (Ap)
23. What is a league tournament? Draw a fixture for six teams using Round Robin method. (AI 2017, Delhi 2016)

## 1.4 Fixtures and their Procedures: Knock-Out (Bye and seeding) and League (Staircase, Cyclic, Tabular Method) and Combination Tournaments

**MCQ**

24. How many total matches will be played in a knock-out fixture of 19 teams?  
(a) 18 (b) 17 (c) 20 (d) 16 (2023)
25. In a knockout tournament, if byes are in odd numbers then number of byes in lower half is calculated by  
(a)  $\frac{NB+1}{2}$  (b)  $\frac{NB-1}{2}$   
(c)  $\frac{NB}{2}$  (d)  $NB-1$ . (Term-I, 2021-22) (Ap)
26. In a knockout tournament, if 9 teams are participating then number of byes in upper half will be  
(a) 3 (b) 4  
(c) 5 (d) 2 (Term-I, 2021-22)
27. Match the following:  
(P) Marketing Committee (i) Head of organising committee  
(Q) Chairperson (ii) Responsible for liaison with Print Media

- (R) Tournament (iii) Series of contest between a number of competitors
- (S) Fixture (iv) A sports match that has been arranged for a particular time and date

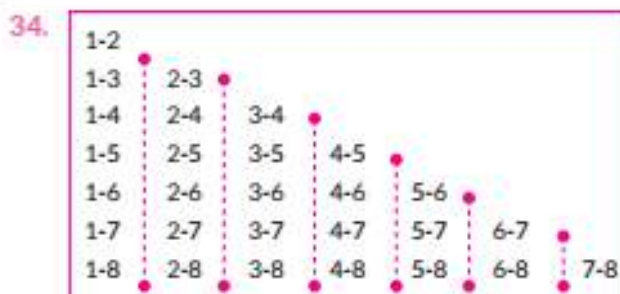
Select the correct answer:

- |     | P  | Q  | R   | S   |
|-----|----|----|-----|-----|
| (a) | ii | i  | iii | iv  |
| (b) | ii | i  | iv  | iii |
| (c) | i  | ii | iii | iv  |
| (d) | i  | ii | iv  | iii |
- (Term-I, 2021-22)

28. How many matches will be played in 2<sup>nd</sup> round, if 14 teams are participating in a knockout tournament?  
(a) 3 (b) 2  
(c) 4 (d) 6 (Term-I, 2021-22)
29. The total number of matches in a knock out tournament of 34 teams are  
(a) 31 (b) 32  
(c) 33 (d) 35. (2020)

**VSA (1 mark)**

30. What do you mean by 'Fixture'? (2018)
31. What do you mean by 'Seeding'? (2018, 2016)
32. Fixtures are the schedule, fixed for the matches. What is a Bye? (Delhi 2017)
33. Explain the procedure for giving Bye. (Delhi 2014)

**SA (3/4 marks)**

On the basis of above fixture, answer the following questions:

- (a) Which method is shown in the picture to draw fixture in league tournament?
- (b) What is the formula to calculate number of matches?
- (c) In league or round robin tournament winner will be decided on the basis of \_\_\_\_\_.
- (d) If 7 teams participate in a league tournament \_\_\_\_\_ number of matches will be played. (2023) (Ev)
35. Draw a fixture of 9 Volleyball teams on league basis following the staircase method. (Delhi 2017, 2017 C) (Ap)

36. On the basis of knock-out tournament, prepare a fixture of 17 teams mentioning all the steps involved. (2021 C)
37. Draw a knock out fixture for 25 teams with all steps involved. (2020)
38. Draw a fixture of 12 teams on a league basis according to the staircase method. How will you decide the winner in a league tournament? (Delhi 2019)
39. What is a league tournament? Draw a fixture of 9 teams on the basis of league tournament by using cyclic method. Explain British method to declare the winner. (AI 2019)
40. Mention all calculations and steps involved to draw a knock-out fixture of 19 teams, where 4 teams are to be seeded. (2018) **U**
41. Define combination tournament. Draw a fixture of 16 teams using Knock-out cum League Method. (2018)
42. Prepare a fixture for 19 teams on a knock-out basis. (Delhi 2014)

## 1.5 Intramural and Extramural Tournaments - Meaning, Objectives and its Significance

### MCQ

43. The primary goal of Intramural competition is
- To provide opportunity for mass participation of students
  - To participate in inter-school competition
  - To provide intra-school competition
  - All of the above. (2020)

### VSA (1 mark)

44. Give two objectives of extramural activities. (AI 2019)

### SA (3 marks)

45. Write three differences between Intramurals and Extramurals. (Delhi 2017) **An**
46. Write briefly about the objectives of intramurals. (Delhi 2016 C)

## CBSE Sample Questions

### 1.1 Functions of Sports Events Management

#### MCQ

1. Identify which one of these is not the objective of Planning?
- Enhance creativity
  - Increase efficiency
  - Reduce chances of mistake
  - Facilitates poor coordination (Term-I, 2021-22)
2. Given below are the two statements labelled Assertion (A) and Reason (R).  
**Assertion (A)** : Planning is the foremost function in sports.  
**Reason (R)** : Planning gives a view of future course of action.  
 In the context of the above two statements, which one of the following is correct?
- Both (A) and (R) are true and (R) is the correct explanation of (A).
  - Both (A) and (R) are true, but (R) is not the correct explanation of (A).
  - (A) is true, but (R) is false.
  - (A) is false, but (R) is true. (2020-21) **Ev**

### 1.2 Various Committees and their Responsibilities (Pre, During and Post)

#### MCQ

3. Match the following :
- |                               |                                     |
|-------------------------------|-------------------------------------|
| (A) Technical committee (I)   | To provide shifting facility        |
| (B) Finance committee (II)    | To resolve dispute                  |
| (C) Transport committee (III) | To deals with money and expenditure |
| (D) First aid committee (IV)  | To provide medical facilities.      |
- A-II, B-III, C-I, D-IV
  - A-III, B-II, C-I, D-IV
  - A-II, B-III, C-IV, D-I
  - A-IV, B-III, C-I, D-II (Term-I, 2021-22)

### 1.3 Tournaments-Knock-Out, League or Round Robin and Combination

#### MCQ

4. How many byes will be given if there are 17 teams?
- 1
  - 8
  - 15
  - 15 (2022-23) **Ev**



5. How many matches will be played in a knock-out tournaments first if there are 15 teams?  
 (a) 8 (b) 7  
 (c) 5 (d) 6 (2022-23) (Ev)
6. Consolation tournaments are a part of which type of fixture?  
 (a) Knock-out (b) League  
 (c) Combination (d) None of these  
 (Term-I, 2021-22)
7. Which fixture is also known as 'Berger system'?  
 (a) Knock-out fixture  
 (b) Round robin fixture  
 (c) Combination fixture  
 (d) Challenge tournament (Term-I, 2021-22)
8. ABC School is one of the reputed schools in their location for the number of sports facilities it provides to its stakeholders. Keeping that in consideration CBSE Sports cell has given them the responsibility of conducting CBSE Football cluster. 35 teams have sent their entry for participation in the tournament.  
 Due to the large number of teams willing to participate, the school should conduct the competition by which fixture?  
 (a) League (b) Knock-out  
 (c) Staircase (d) Challenge  
 (Term-I, 2021-22) (Ap)

## 1.4 Fixtures and their Procedures: Knock-Out (Bye and Seeding) and League (Staircase, Cyclic, Tabular Method) and Combination Tournaments

### MCQ

9. What is the formula to divide an odd number of teams in the upper half for a knockout fixture?  
 (a)  $N+1/2$  (b)  $N-1/2$   
 (c)  $N(N-1)/2$  (d)  $N(N+1)/2$   
 (Term-I, 2021-22)

10. Formula for determining the number of bye in the lower half of a knock-out fixture, when number of byes are odd?  
 (a)  $nb+1/2$  (b)  $nb-1/2$   
 (c)  $nb/2$  (d)  $nb+1$   
 (Term-I, 2021-22)
11. The formula for determining the number of rounds in a single league fixture, when the number of teams is even?  
 (a)  $N$  (b)  $N-1/2$   
 (c)  $N-1$  (d)  $N(N-1)/2$   
 (Term-I, 2021-22) (R)
12. How many matches will be played, if there are 22 teams for the knock-out fixture?  
 (a) 10 (b) 21 (c) 12 (d) 32  
 (Term-I, 2021-22)
13. How many rounds will be played, if the number of teams are 29 in the knock-out fixture?  
 (a) 5 (b) 6 (c) 7 (d) 3  
 (Term-I, 2021-22)
14. Rohan and Satish organised a Volleyball tournament on Knock-out basis. They found that the spectators were losing interest in the tournament because two good teams were out of the tournament as they were defeated in the beginning.  
 Which provision could have avoided this kind of situation?  
 (a) Bye (b) Seeding  
 (c) Pools (d) Halves  
 (Term-I, 2021-22)
15. What is Bye?  
 (a) It's a method of drawing fixture.  
 (b) Point system for team games.  
 (c) Advantage given to a team to not to play in initial round.  
 (d) Placing of teams according to previous performance. (2020-21)

### SA (3 marks)

16. There are 11 teams participating in a knock-out tournament. Explain the procedure to calculate number of 'Byes' and also with the help of diagram allot 'Byes'. (2020-21)

## ANSWERS

### Previous Years' CBSE Board Questions

- (d) : Defining course of action
- (c) : Facilitate recreation
- It is an intellectual process of thinking in advance about setting of goals and developing strategies which

are required to attain the goal efficiently in the field of sports.

- Directing helps to ensure that the individuals and teams involved in the event are aligned and working effectively towards a common goal, while controlling helps to ensure that the event is organised efficiently



and effectively by monitoring progress, identifying and addressing issues and making necessary adjustments.

5. (d) : All of the above

6. (c) : Art integration

7. (a) Responsibilities of committees in pre-game:-

(i) **Organising Committee** : It draws the budget for the sports meet. This involves identifying areas that require funds and the source of the funds including looking for sponsorships. The organisers try to enlist the assistance of qualified people depending on the sports/game involved. Further to this, sub-committees are set-up to take care of the various aspects of the sports meet.

(ii) **Publicity Committee** : The major responsibility of the Publicity Committee is to disseminate information about the event so that more participants and spectators attend the event. They also establish contact with the media to spread information. They use other modes of publicity such as website, social media, e-mail, physical mail etc., to socialise/publicise the event.

**Equipment and technical Committee** :

(b) Responsibilities of committees during the event:-

(i) **Refreshment and Entertainment** : This committee is responsible for arranging and providing water and refreshments to the participants and guests.

(ii) **First-Aid** : This committee provides first aid to the injured athletes.

(c) Responsibilities of committees after the event:-

(i) **Organising Committee** : After the sports meet is over, organizers should conduct an evaluation of the entire process.

(ii) **First Aid** : This committee should be able to take care of injured participants and serious cases should be sent to proper hospitals.

8. The different committees required to be formed in organising sports day at school which are as follows –

(a) **The Organising Committee** : It draws the budget for the sports meet. This involves identifying areas that require funds and the source of the funds including looking for sponsorships. The organisers try to enlist the assistance of qualified people depending on the sports/game involved. Further to this, sub-committees are set-up to take care of the various aspects of the sports meet.

(b) **Publicity Committee** : The major responsibility of the Publicity Committee is to disseminate information about the event so that more participants and spectators attend the event. They also establish contact with the media to spread information. They use other modes of publicity such as website, social media, e-mail, physical mail etc., to socialise/publicise the event.

(c) **Entries and programme** : This committee is responsible for sending entry invitations. They ensure that the necessary invitations are sent timely to enable the concerned persons to confirm participation and prepare themselves adequately for the sports meet. Invitations are sent out to teams, officials, guests, and guest of honor.

(d) **Officials' selection committee** : This is a very powerful committee, as it has the responsibility of

selecting various officials such as referees, judges, recorders, clerks, marshals, track umpires, time keepers, judges etc.

(e) **Equipment and technical committee** : Identification and provision of suitable facilities and equipment at the venues is ensured. The game surface, indoor or outdoor, is marked properly according to the required dimensions, it is cleaned and cleared of any physical hazards.

(f) **Transportation Committee** : This committee is responsible for providing efficient and comfortable transport facilities to the participants and officials from their place of lodging to the place of the sporting events.

(g) **Boarding and Lodging committee** : This committee is responsible for making stay arrangements and food arrangements for all the participants and the officials. For convenience, they prepare a brochure that provides directions and pertinent details of hotel facilities/amenities, parking, nearest hospitals, first aid facilities etc. It also usually contains attractions close-by for sight-seeing.

(h) **Decoration committee** : This committee is responsible for the very important job of making the event attractive. It is done by establishing a theme with the Logo & Slogan and decorating the sports arena, suitably displaying the banners etc.

(i) **Reception committee** : It is the responsibility of this committee to welcome guests and transition them over to hospitality committee-volunteers. Their role is particularly important during the opening and the closing ceremonies.

(j) **Refreshment and Entertainment** : This committee is responsible for arranging and providing refreshments and water to the participants and distinguished guests. To effectively execute this function, the committee should plan well in advance. The committee also arranges recreation programmes during opening and closing ceremony.

9. Run for unity would be a non-competitive event basically to inculcate peace and harmony among the people of different religion of different faith. The aim should be to invite and ensure participation of well-known people from different segments of the society. This adds to the popularity of the event. Prizes would be given to first three position holders.

(i) **Technical committee** : This committee is responsible for laying the ground according to specifications. It ensures that the equipment is as per specifications and are well maintained and in working condition. An important job of this committee is to get the ground ready for the different track and field events. In this case, the path of the run would be checked to ensure that it is free of traffic, unruly crowds. If permission from municipal agencies is needed it will be secured.

(ii) **Accreditation committee**: The Accreditation Committee is responsible for the accreditation of the sporting event from different agencies. It gives the event a proper quality and the level of status. The committee will try to get the race a respectable status, so that more and more people participate.



(iii) Finance committee : The role of the finance committee would be primarily to provide financial oversight for the organisation of the event. Their work would include budgeting and financial planning. They would also look for sponsorship and try to tap other avenues to raise funds to organize the event in the best possible way.

10. (c) : N

11. (b) : League Tournament

12. (b) : Last team of Upper half

13. (a) : Knock-out Tournament

14. (a) : Round Robin

15. (d) : Decides the real strong team.

16. Advantages of league tournament are :

- Every team gets enough opportunity to show their skills.
- It can generate more revenues from advertisement as number of events are more.

Disadvantages of league tournament are :

- It takes more time for completion.
- It is more expensive to organise.

17. Total number of matches =  $N - 1$   
 $= 20 - 1 = 19$  matches

18. Disadvantages of league tournament are:

- It takes more time for completion.
- It is more expensive to organise.

19. In a Round Robin or league tournament all participating teams compete with each other. It can be single league or double league. In single league, the participating teams play with each other once. Whereas in double league, each participating team play with each other twice.

20. (i) Only the strong teams with skill and stamina usually win the tournament.

(ii) Every team gets enough opportunity to show their skills.

(iii) Games and sports get more opportunity of publicity that helps in popularisation of sports.

(iv) Officials are more likely to choose the best team as they can watch the players many more times.

(v) A team does not have to defeat the opponents to play next match, thus every team gets good experience.

(vi) There are many more opportunities to improve one's own game and performance.

(vii) Viewers get enough opportunity to see many more number of games.

(viii) It can generate more revenues from advertisement as number of events are more.

21. Advantages of league tournament are:

- Every team gets enough opportunity to show their skills.
- It can generate more revenues from advertisement as number of events are more.

### Related Theory

⇒ There are two types of league tournaments

(I) Single league tournament, no. of matches =  $\frac{N(N-1)}{2}$

(here 'N' means the number of teams taking part in tournament)

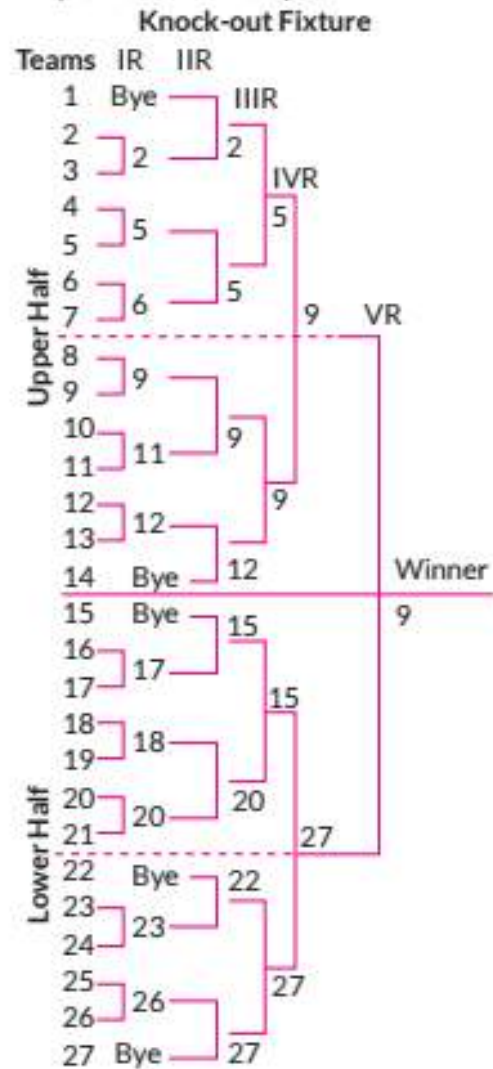
(II) Double league tournament, no. of matches =  $N(N-1)$

22. **Tournament** : It is a series of contests between a number of competitors, competing for an overall prize. The tournaments are organised at various levels such as zonal, district, state, national and international levels. Olympic games and World Cups are the top international tournaments. Tournaments are very important in the field of sports.

Knock-out fixture for 27 teams :

Number of teams = 27

Number of byes =  $32 - 27 = 5$  byes



### Commonly Made Mistake

⇒ Students sometimes confused in giving byes to different teams. It should be kept in mind which bye should be given to which team. It will help them to solve the question correctly.

23. **League Tournament** : It is also called "Round Robin Tournament". Mr. Johann Berger was the first person, who imagined about this league tournament and owing to that, it is also called 'Berger Systems'.



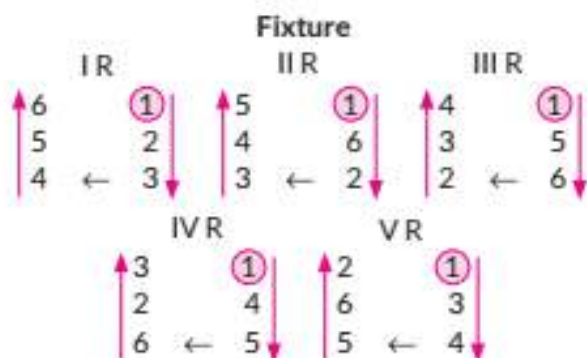
A fixture of 6 teams on league basis according to cyclic method.

Total number of teams = 6

Total number of matches

$$= \frac{N(N-1)}{2} = \frac{6(6-1)}{2} = \frac{6(5)}{2} = \frac{30}{2} = 15 \text{ matches}$$

Number of rounds =  $N - 1 = 6 - 1 = 5$  rounds



24. (a) : 18

26. (a) : 3

28. (c) : 4

30. The organised method in which teams participate in any tournament is a fixture. It means arranging the matches in a tournament with details of venue, date and time.

31. Seeding is a method in which a strong team or players are selected to keep them at appropriate place in the fixture so that they do not meet in the earlier round. The organiser must be well aware regarding the previous performance of the selected team/player.

32. Bye is the transfer of a competitor directly to the next round of a competition in the absence of an assigned opponent. In other words, it refers to a situation where one team is dummy. Thus, the other team (getting the bye) wins without playing. It also gets the winners point.

33. (a) The first bye is given to the last team in the lower section.

(b) The second bye is given to the first team in the upper section.

(c) The third bye is given to the first team in the lower section.

(d) The fourth bye is given to the last team in the upper section.

(e) The next byes will be given in the same order as above.

34. (i) Stair case

(ii) Formula of calculating number of matches =  $\frac{N(N-1)}{2}$

(iii) After the tournament all the teams are awarded the score as per their performance and the team which scores maximum is declared winner.

(iv) No. of matches will be played =  $\frac{7(7-1)}{2} = \frac{7 \times 6}{2} = 21$

35. Fixture of 9 teams (8 rounds) by stair case method:

| 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 5 <sup>th</sup> | 6 <sup>th</sup> | 7 <sup>th</sup> | 8 <sup>th</sup> |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1-2             |                 |                 |                 |                 |                 |                 |                 |
| 1-3             | 2-3             |                 |                 |                 |                 |                 |                 |
| 1-4             | 2-4             | 3-4             |                 |                 |                 |                 |                 |

|     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 1-5 | 2-5 | 3-5 | 4-5 |     |     |     |     |
| 1-6 | 2-6 | 3-6 | 4-6 | 5-6 |     |     |     |
| 1-7 | 2-7 | 3-7 | 4-7 | 5-7 | 6-7 |     |     |
| 1-8 | 2-8 | 3-8 | 4-8 | 5-8 | 6-8 | 7-8 |     |
| 1-9 | 2-9 | 3-9 | 4-9 | 5-9 | 6-9 | 7-9 | 8-9 |

36. Steps for the fixture of knock-out tournament:

(i) Total number of matches should be calculating by knowing total number of teams.

'N' denotes total number of teams.

So, total number of matches =  $N - 1$

=  $17 - 1 = 16$  matches.

(ii) The total number of teams are not in power of 2.

∴ Upper half =  $\frac{N+1}{2} = \frac{17+1}{2} = \frac{18}{2} = 9$  teams

Lower half =  $\frac{N-1}{2} = \frac{17-1}{2} = \frac{16}{2} = 8$  teams

(iii) As total number of teams are not in power of '2', so byes will be given.

∴ total number of byes = Difference between next highest power of 2 from total teams and total number of teams.

=  $32 - 17$

= 15 byes.

(iv) Total number of byes in upper half =  $\frac{15-1}{2} = 7$  byes

Total number of byes in lower half =  $\frac{15+1}{2} = 8$  byes

(v) Number of rounds =  $2 \times 2 \times 2 \times 2 \times 2 = 5$  rounds.

(vi) Teams in each quarter.

First Quarter =  $4 + 1 = 5$  teams

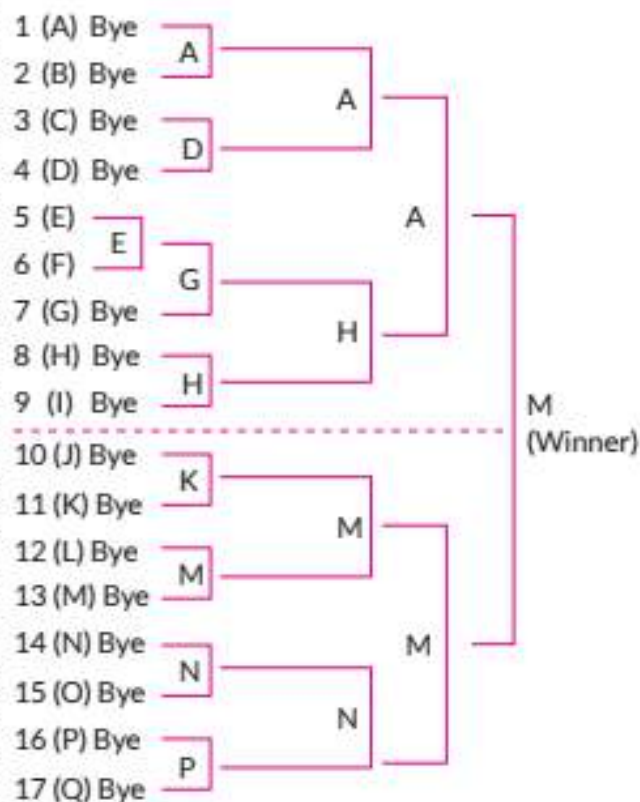
Second Quarter =  $4 = 4$  teams

Third Quarter =  $4 = 4$  teams

Fourth Quarter =  $4 = 4$  teams

Fixture:

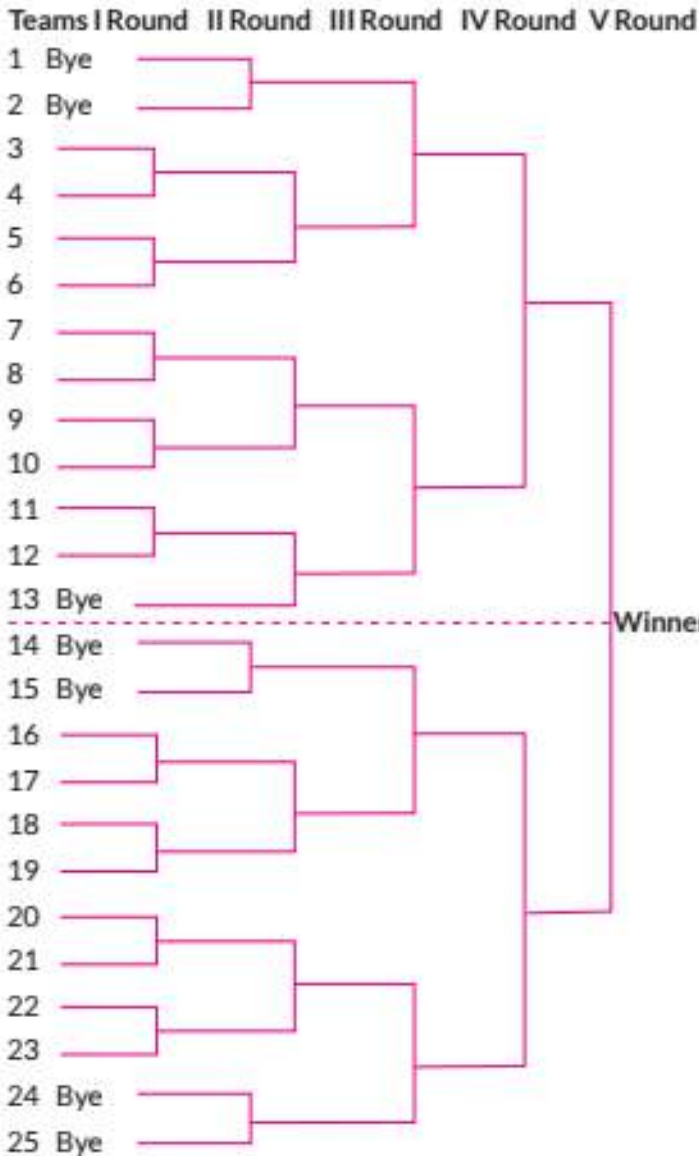
I<sup>st</sup> Round II<sup>nd</sup> Round III<sup>rd</sup> Round IV<sup>th</sup> Round V<sup>th</sup> Round



**Related Theory**

Since total no. of teams are not in power of 2. So bye will be given = Difference between next highest power of 2 from total teams and total no. of teams. So, total no. of byes = Next power of two - total number of teams.

37. (i) Total no. of matches = Total no. of teams - 1  
 $= 25 - 1 = 24$
- (ii) Total no. of rounds =  $2 \times 2 \times 2 \times 2 \times 2$   
 i.e. Digit 2 report 5 times = 5 rounds
- (iii) Total teams in upper half =  $(\text{Total no. of teams} + 1) / 2$   
 $= 26 / 2 = 13$  teams  
 Total teams in lower half =  $(\text{Total no. of teams} - 1) / 2$   
 $= 24 / 2 = 12$  teams
- (iv) As the total no. of teams are more than 16, so we have to divide teams also in quarters.  
 Teams in each quarter:  $(25 / 4 = 6)$
- First quarter: 6 + 1 = 7
  - Second quarter: 6
  - Third quarter: 6
  - Fourth quarter: 6
- (v) Total no. of byes =  $32 - 25 = 7$  byes
- Byes in upper half =  $(B - 1) / 2 = 3$  byes
  - Byes in lower half =  $(B + 1) / 2 = 4$  byes



38. Fixture of 12 teams according to staircase method.

|      |      |      |      |      |      |      |      |      |       |       |  |
|------|------|------|------|------|------|------|------|------|-------|-------|--|
| 1-2  |      |      |      |      |      |      |      |      |       |       |  |
| 1-3  | 2-3  |      |      |      |      |      |      |      |       |       |  |
| 1-4  | 2-4  | 3-4  |      |      |      |      |      |      |       |       |  |
| 1-5  | 2-5  | 3-5  | 4-5  |      |      |      |      |      |       |       |  |
| 1-6  | 2-6  | 3-6  | 4-6  | 5-6  |      |      |      |      |       |       |  |
| 1-7  | 2-7  | 3-7  | 4-7  | 5-7  | 6-7  |      |      |      |       |       |  |
| 1-8  | 2-8  | 3-8  | 4-8  | 5-8  | 6-8  | 7-8  |      |      |       |       |  |
| 1-9  | 2-9  | 3-9  | 4-9  | 5-9  | 6-9  | 7-9  | 8-9  |      |       |       |  |
| 1-10 | 2-10 | 3-10 | 4-10 | 5-10 | 6-10 | 7-10 | 8-10 | 9-10 |       |       |  |
| 1-11 | 2-11 | 3-11 | 4-11 | 5-11 | 6-11 | 7-11 | 8-11 | 9-11 | 10-11 |       |  |
| 1-12 | 2-12 | 3-12 | 4-12 | 5-12 | 6-12 | 7-12 | 8-12 | 9-12 | 10-12 | 11-12 |  |

Number of matches to be played

$$\text{No. of matches} = \frac{N(N-1)}{2} = \frac{12(12-1)}{2}$$

$$= \frac{12 \times 11}{2} = \frac{132}{2} = 66 \text{ matches}$$

The following way is used to decide a winner:

The team that wins the match gets = 2 points

The team that loses the match gets = 0 point

If match draws then each team gets = 1 point

After the tournament all the teams are awarded the score as per their performance and the team which scores maximum is declared winner.

If the points are equal of two teams, then a match is held again between both the teams.

39. (i) League Tournament: In this type of tournament, each team plays with every other team once if it is a single league tournament.

It is a double league tournament when each team plays with every other team twice.

(ii) Fixture of 9 teams according to cyclic method:

Total no. of teams = 9

$$\text{Total no. of matches} = N \left( \frac{N-1}{2} \right) = 9 \left( \frac{9-1}{2} \right) = 36$$

Total no. of rounds = 9

| I Round | II Round | III Round | IV Round | V Round |
|---------|----------|-----------|----------|---------|
| 9 Bye   | 8 Bye    | 7 Bye     | 6 Bye    | 5 Bye   |
| 8 1     | 7 9      | 6 8       | 5 7      | 4 6     |
| 7 2     | 6 1      | 5 9       | 4 8      | 3 7     |
| 6 3     | 5 2      | 4 1       | 3 9      | 2 8     |
| 5 4     | 4 3      | 3 2       | 2 1      | 1 9     |

| VI Round | VII Round | VIII Round | IX Round |
|----------|-----------|------------|----------|
| 4 Bye    | 3 Bye     | 2 Bye      | 1 Bye    |
| 3 5      | 2 4       | 1 3        | 9 2      |
| 2 6      | 1 5       | 9 4        | 8 3      |
| 1 7      | 9 6       | 8 5        | 7 4      |
| 9 8      | 8 7       | 7 6        | 6 5      |



**British Method:** Divide the total points obtained by the total possible points.

For example : If a team plays 8 matches in a tournament and wins 6 matches and 2 remains draw, the percentage of points will be (2 points for winning and 1 point for draw).

Total points =  $12 + 2 = 14$   
 Possible points =  $8 \times 2 = 16$   
 Percentage of points  

$$= \frac{\text{Total points obtained}}{\text{Total possible points}} \times 100$$

$$= \frac{14}{16} \times 100 = 87.5\%$$

Total possible points = 87.5%

40. Total no. of teams = 19 ( $N = 19$ )

No. of matches =  $(N - 1) = 19 - 1 = 18$

No. of teams in upper half =  $\frac{N+1}{2} = 10$

No. of teams in lower half =  $\frac{N-1}{2} = 9$

Total no. of byes (NB) = next power of 2 -  $N$   
 $= 32 - 19 = 13$

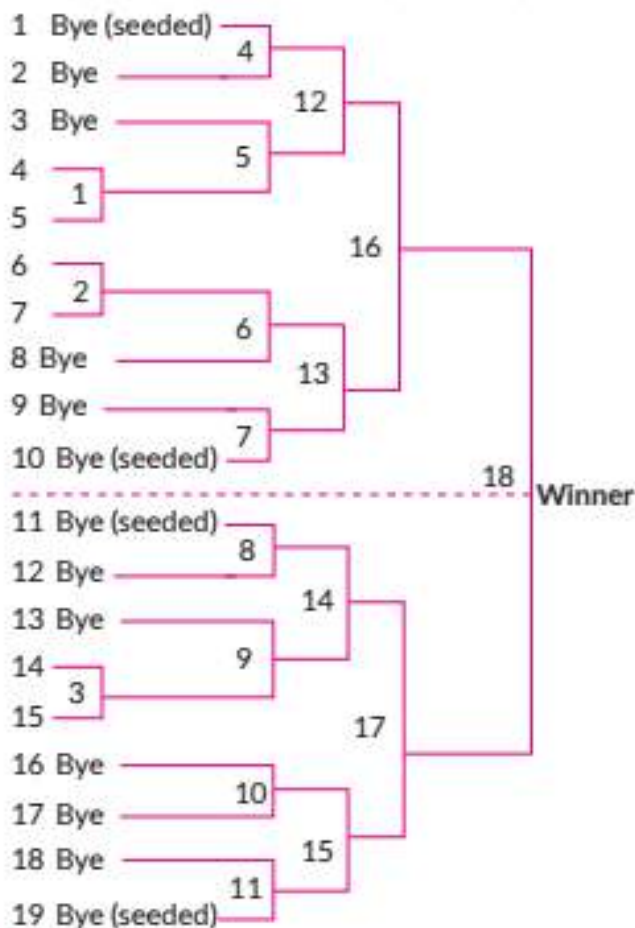
No. of byes in upper half =  $\frac{NB-1}{2} = 6$

No. of byes in lower half =  $\frac{NB+1}{2} = 7$

Seeding - 2 teams in upper half with byes

2 teams in lower half with byes.

Teams I Round II Round III Round IV Round V Round



41. **Combination tournament** : Combination tournaments are those tournaments in which initial

rounds of tournament are played on particular basis (knock-out or league) and rest of the tournaments are played on another particular basis (Knock - out/ league).

Fixture:

No. of teams = 16

For combination tournament, teams are divided into four equal parts.

$$\text{Group} = \frac{16}{4} = 4$$

Group A (First four teams)

Group B (Second four teams)

Group C (Third four teams)

Group D (Last four teams)

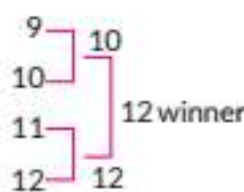
Round 1, Group A



Round 1, Group B



Round 1, Group C



Round 1, Group D



Winner of each team will participate in league tournament.

League Tournament

4, 7, 12, 13

No. of matches for league tournament

$$= \frac{N(N-1)}{2} = \frac{4 \times 3}{2} = \frac{12}{2} = 06$$

Fixture of league tournament by staircase method.

|                 |
|-----------------|
| 4-7             |
| 4-12 7-12       |
| 4-13 7-13 12-13 |

OR

Cyclic method

| I    | II   | III   |
|------|------|-------|
| 4-13 | 4-12 | 4-7   |
| 7-12 | 13-7 | 12-13 |

42. Total number of teams = 19

Total number of matches =  $19 - 1 = 18$

Teams in the upper half =  $\frac{N+1}{2} = \frac{19+1}{2} = \frac{20}{2} = 10$  teams

Teams in the lower half =  $\frac{N-1}{2} = \frac{19-1}{2} = \frac{18}{2} = 9$  teams

Total number of byes =  $32 - 19 = 13$  byes

Byes in the upper half =  $\frac{NB-1}{2} = \frac{13-1}{2} = \frac{12}{2} = 6$  byes

Byes in the lower half =  $\frac{NB+1}{2} = \frac{13+1}{2} = \frac{14}{2} = 7$  byes

Number of rounds =  $2 \times 2 \times 2 \times 2 = 5$  rounds

Teams in each quarter

= First Quarter =  $Q + 1 = 4 + 1 = 5$  teams

= Second Quarter =  $Q + 1 = 4 + 1 = 5$  teams

= Third Quarter =  $Q + 1 = 4 + 1 = 5$  teams

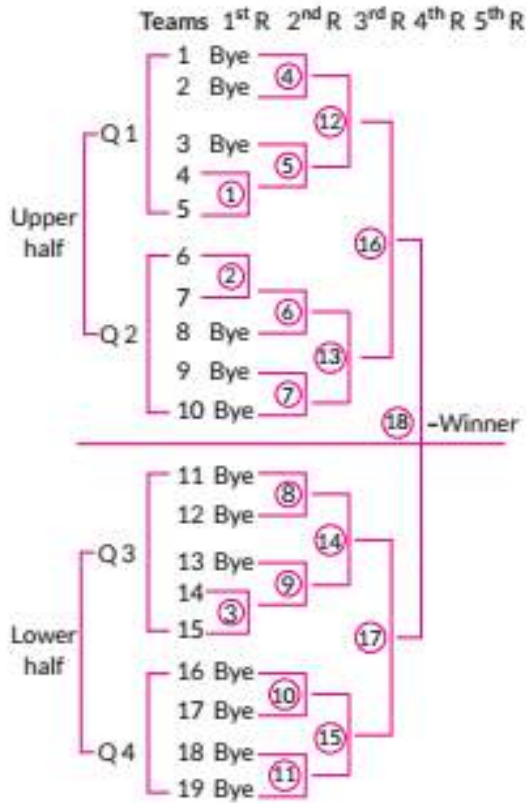
= Fourth Quarter =  $Q = 4 = 4$  teams

Byes in each quarter

= First Quarter = 3 } 6  
= Second Quarter = 3 } Byes (Upper half)

= Third Quarter = 3 } 7  
= Fourth Quarter = 4 } Byes (Lower half)

(Figures in circle below denote match number)



43. (d)

44. (i) To improve standard of sports

(ii) To provide enriching experience to students

(iii) To broaden the base of sports

(iv) To provide knowledge of new rules and advanced techniques. (Any two)

45.

| Intramurals   | Extramurals   |
|---|---|
| These are sporting activities or tournaments performed within a campus of an institution.   | Sporting activities which are performed outside the walls of an institution or school, are known as "extramural". |
| All the activities are organized for the participants of the institution and outside participants are not allowed to take part. Its motto can be described as "a game for all and each for a game". | In this kind of tournaments teams are from different schools. This can also be called "Inter-school competition". |

This is important for physical, mental and social development of students. Stress is laid on participation, entertainment and development of moral and ethical values.

Provide schools to show their sporting caliber. These are important for raising the standards of sports. Provides opportunities to learn new methods and techniques.

46. Objectives of intramural competitions can be summarized as follows :

(a) To provide opportunities to every student to participate in Games and Sports and to develop leadership qualities among students.

(b) To develop the skill of cooperation and teamwork amongst the students and to provide healthy recreation to growing children. It develops sportsmanship.

(c) It provides opportunities to learn a variety of games and skills needed in playing them. It gives them a real-life learning situation in organisation and volunteering.

### CBSE Sample Questions

- (d) : Facilitates poor coordination (0.80)
- (a) : Both (A) and (R) are true and (R) is the correct explanation of (A). (1)
- (a) : A-II, B-III, C-I, D-IV (0.80)
- (c) : 15 (1)
- (b) : 7 (1)
- (a) : Knock-out (0.80)
- (b) : Round robin fixture (0.80)
- (b) : Knock out (0.80)
- (a) :  $N+1/2$  (0.80)
- (a) :  $nb+1/2$  (0.80)
- (c) :  $N-1$  (0.80)
- (b) : 21 (0.80)
- (a) : 5 (0.80)
- (b) : Seeding (0.80)
- (c) : Advantage given to a team to not play in initial round. (1)

16. Number of teams = 11

No. of byes =  $2^n$  - No. of teams

=  $2^4 - 11 = 16 - 11 = 5$

1R

1 2B

2

3

Upper Half 4

5

6 4B

7 3B

8

Lower Half 9

10 5B

11 1B

- First bye is given to last team of lower half.
- Second bye is given to first team of upper half.
- Third bye is given to first team of lower half.
- Fourth bye is given to last team of upper half.
- Fifth bye is given to last second team of lower half. (3)