## PRODUCING DRAWS FOR COMPETITIONS

## SUMMARY

The success of a competition depends on many factors; a sound draw is one of them and the following are imperative for a sound draw:

IT MUST be simple,
IT MUST be easily understood,
IT MUST be fair,
IT MUST be on display,
IT MUST be adhered to once started,
IT MUST be kept up to date with results,
IT MUST allow sufficient time for completion of all matches at a reasonable hour,
IT MUST NOT favour any one team, and
IT MUST NOT be changed once play has started.

## INTRODUCTION \& TERMS USED

## Introduction

The smooth conduct of any competition is dependent on a fair and equitable chance being afforded to all competitors. The success or otherwise of a competition will depend on a number of factors.

1. The correct identification of the relative ability of all competitors, for handicap play not necessary for level play [championship] (this should be accurate with grading being available).
2. Competition on all days for all competitors. People have spent good money to come and compete. To compete is what they want and that is what they should be allowed to do.

3 Sound organisation and good communication system whereby everyone knows what is happening at all times.
4. A friendly and convivial atmosphere ensuring enjoyment and a desire to return next time.

## Terms Used

Draw: The format for the conduct of the competition.
Seeding: A system used prior to the competition where knowledge of the participants relative ability is used to determine their ranking against each other. The aim is to attempt to predetermine each competitors final place relative to each other, for handicap play not necessary for level play [championship].

Knock out: An elimination system to achieve a winner in a series of head to head contests. This is the system used in some competitions.

Round Robin: A system where every competitor in a specific competition play each other to determine a winner.
Split Round Robin: A system where competitors are divided into two or more groups. All competitors within a group play each other with the various winners progressing to a final series. Used in World Gateball Championships.

## DRAW PRINCIPLES

## The Draw

This must be simple, well publicised, and adhered to once play has commenced.
Two simple draws are currently in use and in fact in most major sporting events. The one chosen is up to you as organisers. It will be determined by the number of competitors competing, the time available, and the number of fields available.

Seeding of teams based on your knowledge of players was originally necessary. However with the advent of a grading system this has now replaced the guess work. Grading total of all players in each team will determine their seeding for you.

With say 12 teams nominating you must determine whether to conduct 2 or 3 separate competitions and who will compete in each division.

Should a knock out draw be decided on then correct placement of teams within the draw is necessary.
However if a round robin competition is decided on then correct placement within the draw does not matter.
The following possible draws are suggested to assist you successfully conduct your event.
Remember "home brewed" draws or short cuts are doomed to failure and only lead to frustration and disharmony. In all cases shown the numbers used are the seeded status with No 1 being the best team (highest grading), number 2 second on gradings etc.

## Round Robins

The criteria for determining winners are as follows:-

1. The team with the most wins is the winner.
2. In the event of two or more teams being equal as above then the winner is determined on the basis of points scored for and points scored against (net points).
3. Please note a result is required in all games.
4. By keeping draws simple they can very easily be changed should some unforseen circumstance arise such as a team not arriving.
5. Should your draw be changed in such circumstances ensure it is done early (preferably before play commences) and must be communicated to everyone as soon as possible.

## VARIATIONS

For virtually any number of teams a combination of the foregoing draws could be used. For example with 7 teams you may run a 3 team round robin in one half and a knock out for the remaining 4 teams. Final would be winner round robin $v$ winner knock out with $2^{\text {nd }}$ round robin v loser knock out and loser that match $v 3^{\text {rd }}$ round robin to give that team an extra match.

## 2 COURTS

## 6 to 11 Teams

## Can be used either for Round Robin or Block Format.

## 2 Courts is effective and viable for up to 11 teams.

| 6 Teams = 15 Games; | 8 Rounds; 1 | 1 Day. |
| :---: | :---: | :---: |
| 7 Teams = 21 Games; | 11 Rounds; | 2 Days [Day $1=7$ Rounds and Day $2=4$ Rounds]. |
| 8 Teams = 28 Games; | 14 Rounds; | 2 Days [7 Rounds each Day]. |
| 9 Teams = 36 Games; | 18 Rounds; | 2 Days [9 Rounds each Day]. |
| 10 Teams = 45 Games; | 23 Rounds; | 3 Days [Day $1 \& 2=8$ Rounds and Day $3=7$ Rounds]. |
| 11 Teams = 55 Games; | 28 Rounds; | 4 Days [7 Rounds each Day]. |
| 12 Teams = 66 Games; | 33 Rounds; | 4 Days [Day $1,3 \& 4=8$ Rounds each and Day $2=9$ Rounds] |
| 13 Teams = 78 Games; | 39 Rounds; | 5 Days [Day 1 to $4=8$ Rounds each and Day $5=7$ Rounds]. |
| 14 Teams = 91 Games; | 46 Rounds; | 6 Days [Day 1 to $5=8$ Rounds each and Day $6=6$ Rounds]. |
| 15 Teams = 105 Games; | 53 Rounds; | ; 7 Days [Day 1 to $6=8$ Rounds each and Day $7=5$ Rounds]. |
| 16 Teams = 120 Games; | 60 Rounds; |  |
| 17 Teams = 136 Games; | 68 Rounds; | 8 Days [Day 1, 6 to $8=8$ Rounds each and Day 2 to 5 $=9$ Rounds each]. |
| 18 Teams = 153 Games; | 77 Rounds; | 9 Days [Day 1,7 to $9=8$ Rounds each and Day 2 to 6 $=9$ Rounds each]. |
| 19 Teams = 171 Games; | 86 Rounds; | 10 Days [Day 1, 8 to $10=8$ Rounds each and Day 2 to 7 $=9$ Rounds each]. |
| 20 Teams = 190 Games; | 95 Rounds; | 11 Days [Day 1, 9 to $11=8$ Rounds each and Day 2 to 8 $=9$ Rounds each]. |

## Matters Considered

1. Endeavour equal amount of duties per team.
2. Endeavour equal amount times/uses on Courts 1 and 2 for each team.
3. Endeavour equal amount of times of performing duties for each team on Courts 1 and 2.
4. Endeavour Not to have two consecutive games for the same team especially on the same court.
5. Endeavour Not to have a team perform duties for a game prior to playing another team on the same court.

Day 1

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 1. | $2 \vee 5$ | 6 | $3 \vee 4$ | 1 | Nil |
| 2. | $1 \vee 2$ | 4 | $5 \vee 6$ | 3 | Nil |
| 3. | $2 \vee 3$ | 6 | $1 \vee 4$ | 5 | Nil |
| 4. | $4 \vee 5$ | 1 | $3 \vee 6$ | 2 | Nil |
| 5. | $2 \vee 6$ | 4 | $1 \vee 5$ | 3 | Nil |
| 6. | $1 \vee 3$ | 6 | $2 \vee 4$ | 5 | Nil |
| 7. | $3 \vee 5$ | 2 | $1 \vee 6$ | 4 | Nil |
| 8. | $4 \vee 6$ | 5 |  |  | $1,2,3$ |

6 Teams = 15 Games; 8 Rounds; 1 Day.

Day 1

| Round | Court 1 |  | Court 2 |  | Spare <br> Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 1. | $2 \vee 6$ | 5 | $1 \vee 7$ | 4 | 3 |
| 2. | $4 \vee 7$ | 2 | $3 \vee 5$ | 6 | 1 |
| 3. | $1 \vee 6$ | 5 | $2 \vee 4$ | 3 | 7 |
| 4. | $3 \vee 4$ | 7 | $5 \vee 6$ | 1 | 2 |
| 5. | $1 \vee 5$ | 3 | $2 \vee 7$ | 6 | 4 |
| 6. | $4 \vee 6$ | 7 | $1 \vee 3$ | 2 | 5 |
| 7. | $2 \vee 5$ | 4 | $6 \vee 7$ | 1 | 3 |

## Day 2

| Round | Court 1 |  | Court 2 |  | Spare <br> Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 8. | $3 \vee 6$ | 7 | $4 \vee 5$ | 1 | 2 |
| 9. | $1 \vee 2$ | 4 | $3 \vee 7$ | 6 | 5 |
| 10. | $5 \vee 7$ | 2 | $1 \vee 4$ | 3 | 6 |
| 11. | $2 \vee 3$ | 5 |  |  | $1,4,6,7$ |

7 Teams = 21 Games; 11 Rounds; 2 Days [Day $1=7$ Rounds and Day $2=4$ Rounds].

## Day 1

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 1. | $2 \vee 7$ | 4 | $1 \vee 8$ | 3 | 5,6 |
| 2. | $3 \vee 6$ | 2 | $4 \vee 5$ | 7 | 1,8 |
| 3. | $1 \vee 7$ | 5 | $2 \vee 8$ | 6 | 3,4 |
| 4. | $4 \vee 6$ | 8 | $3 \vee 5$ | 7 | 1,2 |
| 5. | $2 \vee 5$ | 4 | $1 \vee 6$ | 3 | 7,8 |
| 6. | $3 \vee 7$ | 2 | $4 \vee 8$ | 1 | 5,6 |
| 7. | $1 \vee 5$ | 8 | $2 \vee 6$ | 7 | 3,4 |

## Day 2

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 8. | $5 \vee 8$ | 3 | $6 \vee 7$ | 4 | 1,2 |
| 9. | $1 \vee 4$ | 6 | $2 \vee 3$ | 8 | 5,7 |
| 10. | $7 \vee 8$ | 2 | $5 \vee 6$ | 1 | 3,4 |
| 11. | $2 \vee 4$ | 7 | $1 \vee 3$ | 5 | 6,8 |
| 12. | $6 \vee 8$ | 3 | $5 \vee 7$ | 1 | 2,4 |
| 13. | $1 \vee 2$ | 6 | $3 \vee 4$ | 5 | 7,8 |
| 14. | $3 \vee 8$ | 1 | $4 \vee 7$ | 2 | 5,6 |

[^0]Day 1

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 1. | $1 \vee 9$ | 5 | $2 \vee 8$ | 7 | $3,4,6$ |
| 2. | $3 \vee 7$ | 8 | $4 \vee 6$ | 2 | $1,5,9$ |
| 3. | $5 \vee 9$ | 2 | $1 \vee 8$ | 3 | $4,6,7$ |
| 4. | $3 \vee 8$ | 1 | $2 \vee 9$ | 4 | $5,6,7$ |
| 5. | $4 \vee 7$ | 9 | $5 \vee 6$ | 8 | $1,2,3$ |
| 6. | $2 \vee 6$ | 3 | $1 \vee 7$ | 4 | $5,8,9$ |
| 7. | $4 \vee 8$ | 7 | $3 \vee 9$ | 6 | $1,2,5$ |
| 8. | $1 \vee 6$ | 9 | $2 \vee 7$ | 5 | $3,4,8$ |
| 9. | $5 \vee 8$ | 1 | $3 \vee 4$ | 6 | $2,7,9$ |

## Day 2

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 10. | $6 \vee 9$ | 2 | $5 \vee 7$ | 1 | $3,4,8$ |
| 11. | $1 \vee 5$ | 7 | $2 \vee 4$ | 6 | $3,8,9$ |
| 12. | $3 \vee 6$ | 2 | $8 \vee 9$ | 4 | $1,5,7$ |
| 13. | $1 \vee 4$ | 8 | $2 \vee 5$ | 9 | $3,6,7$ |
| 14. | $7 \vee 9$ | 3 | $6 \vee 8$ | 5 | $1,2,4$ |
| 15. | $4 \vee 5$ | 9 | $1 \vee 3$ | 8 | $2,6,7$ |
| 16. | $1 \vee 2$ | 3 | $4 \vee 9$ | 7 | $3,5,6$ |
| 17. | $7 \vee 8$ | 6 | $3 \vee 5$ | 1 | $2,4,9$ |
| 18. | $2 \vee 3$ | 4 | $6 \vee 7$ | 5 | $1,8,9$ |

9 Teams = 36 Games; 18 Rounds; 2 Days [9 Rounds each Day].

## Day 1

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 1. | $3 \vee 8$ | 6 | $1 \vee 10$ | 7 | $2,4,5,9$ |
| 2. | $4 \vee 7$ | 10 | $2 \vee 9$ | 5 | $1,3,6,8$ |
| 3. | $1 \vee 8$ | 2 | $6 \vee 10$ | 3 | $4,5,7,9$ |
| 4. | $3 \vee 7$ | 10 | $4 \vee 5$ | 1 | $2,6,8,9$ |
| 5. | $1 \vee 4$ | 3 | $2 \vee 10$ | 9 | $5,6,7,8$ |
| 6. | $2 \vee 7$ | 4 | $5 \vee 8$ | 1 | $3,6,9,10$ |
| 7. | $3 \vee 10$ | 5 | $4 \vee 9$ | 6 | $1,2,7,8$ |
| 8. | $6 \vee 8$ | 2 | $5 \vee 7$ | 9 | $1,3,4,10$ |

Day 2

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 9. | $1 \vee 9$ | 8 | $4 \vee 10$ | 7 | $2,3,5,6$ |
| 10. | $5 \vee 6$ | 8 | $1 \vee 3$ | 10 | $2,4,7,9$ |
| 11. | $7 \vee 10$ | 4 | $2 \vee 8$ | 3 | $1,5,6,9$ |
| 12. | $3 \vee 9$ | 7 | $1 \vee 6$ | 2 | $4,5,8,10$ |
| 13. | $5 \vee 9$ | 4 | $2 \vee 3$ | 8 | $1,6,7,10$ |
| 14. | $8 \vee 10$ | 1 | $4 \vee 6$ | 9 | $2,3,5,7$ |
| 15. | $6 \vee 9$ | 3 | $1 \vee 7$ | 8 | $2,4,5,10$ |
| 16. | $4 \vee 8$ | 7 | $3 \vee 5$ | 6 | $1,2,9,10$ |

Day 3

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 17. | $2 \vee 6$ | 4 | $9 \vee 10$ | 1 | $3,5,7,8$ |
| 18. | $1 \vee 5$ | 10 | $7 \vee 8$ | 2 | $3,4,6,9$ |
| 19. | $2 \vee 4$ | 5 | $3 \vee 6$ | 8 | $1,7,9,10$ |
| 20. | $7 \vee 9$ | 4 | $2 \vee 5$ | 6 | $1,3,8,10$ |
| 21. | $5 \vee 10$ | 9 | $3 \vee 4$ | 7 | $1,2,6,8$ |
| 22. | $1 \vee 2$ | 5 | $8 \vee 9$ | 10 | $3,4,6,7$ |
| 23. |  |  | $6 \vee 7$ | 1 | $2,3,4,5,8,9,10$ |

10 Teams $=45$ Games; 23 Rounds; 3 Days [Day $1 \& 2=8$ Rounds and Day $3=7$ Rounds].

## Day 1

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 1. | $1 \vee 11$ | 5 | $2 \vee 10$ | 6 | $3,4,7,8,9$ |
| 2. | $3 \vee 9$ | 1 | $4 \vee 8$ | 10 | $2,5,6,7,11$ |
| 3. | $5 \vee 7$ | 4 | $6 \vee 11$ | 9 | $1,2,3,8,10$ |
| 4. | $2 \vee 8$ | 11 | $1 \vee 3$ | 7 | $4,5,6,9,10$ |
| 5. | $6 \vee 10$ | 2 | $5 \vee 9$ | 3 | $1,4,7,8,11$ |
| 6. | $1 \vee 4$ | 6 | $2 \vee 7$ | 5 | $3,8,9,10,11$ |
| 7. | $8 \vee 9$ | 3 | $10 \vee 11$ | 1 | $2,4,5,6,7$ |

Day 2

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 8. | $3 \vee 4$ | 9 | $5 \vee 6$ | 8 | $1,2,7,10,11$ |
| 9. | $7 \vee 11$ | 10 | $1 \vee 9$ | 2 | $3,4,5,6,8$ |
| 10. | $2 \vee 5$ | 1 | $3 \vee 8$ | 10 | $4,6,7,9,11$ |
| 11. | $6 \vee 9$ | 11 | $4 \vee 7$ | 5 | $1,2,3,8,10$ |
| 12. | $1 \vee 8$ | 4 | $2 \vee 11$ | 7 | $3,5,6,9,10$ |
| 13. | $3 \vee 5$ | 8 | $4 \vee 9$ | 2 | $1,6,7,10,11$ |
| 14. | $7 \vee 10$ | 5 | $6 \vee 8$ | 3 | $1,2,4,9,11$ |

Day 3

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 15. | $2 \vee 4$ | 3 | $1 \vee 5$ | 6 | $7,8,9,10,11$ |
| 16. | $9 \vee 10$ | 8 | $3 \vee 7$ | 11 | $1,2,4,5,6$ |
| 17. | $2 \vee 6$ | 7 | $8 \vee 10$ | 9 | $1,3,4,5,11$ |
| 18. | $1 \vee 10$ | 2 | $6 \vee 7$ | 4 | $3,5,8,9,11$ |
| 19. | $4 \vee 11$ | 9 | $2 \vee 3$ | 1 | $5,6,7,8,10$ |
| 20. | $1 \vee 7$ | 6 | $4 \vee 10$ | 8 | $2,3,5,9,11$ |
| 21. | $3 \vee 11$ | 10 | $7 \vee 9$ | 4 | $1,2,5,6,8$ |

Day 4

| Round | Court 1 |  | Court 2 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties |  |
| 22. | $1 \vee 6$ | 7 | $5 \vee 8$ | 11 | $2,3,4,9,10$ |
| 23. | $5 \vee 11$ | 1 | $3 \vee 6$ | 2 | $4,7,8,9,10$ |
| 24. | $7 \vee 8$ | 11 | $4 \vee 5$ | 10 | $1,2,3,6,9$ |
| 25. | $3 \vee 10$ | 5 | $9 \vee 11$ | 6 | $1,2,4,7,8$ |
| 26. | $4 \vee 6$ | 7 | $1 \vee 2$ | 3 | $5,8,9,10,11$ |
| 27. | $2 \vee 9$ | 4 | $5 \vee 10$ | 8 | $1,3,6,7,11$ |
| 28. | $8 \vee 11$ | 9 |  | $1,2,3,4,5,6,7,10$ |  |

11 Teams = 55 Games; 28 Rounds; 4 Days [7 Rounds each Day].

## 3 COURTS

## 9 to 13 Teams

## Can be used either for Round Robin or Block Format.

## 3 Courts is effective and viable for up to 13 teams.

| 5 Teams = 10 Games; | 5 Rounds; 1 | 1 Day. |
| :---: | :---: | :---: |
| 6 Teams = 15 Games; | 5 Rounds; 1 | 1 Day. |
| 7 Teams = 21 Games; | 7 Rounds; 1 | 1 Day. |
| 8 Teams = 28 Games; | 10 Rounds; | 1 Day. |
| 9 Teams = 36 Games; | 12 Rounds; | 2 Days [Day $1=7$ Rounds and Day $2=5$ Rounds]. |
| 10 Teams = 45 Games; | 15 Rounds; | 2 Days [Day $1=8$ Rounds and Day $2=7$ Rounds]. |
| 11 Teams = 55 Games; | 19 Rounds; | 3 Days [Day $1 \& 2=7$ Rounds each and Day $3=5$ Rounds]. |
| 12 Teams = 66 Games; | 22 Rounds; | 3 Days [Day $1 \& 3=7$ Rounds each and Day $2=8$ Rounds]. |
| 13 Teams = 78 Games; | 26 Rounds; | 3 Days [Day $1 \& 2=9$ Rounds each and Day $3=8$ Rounds]. |
| 14 Teams = 91 Games; | 31 Rounds; | 4 Days [Day 1, 2 \& $3=8$ Rounds each and Day $4=7$ Rounds]. |
| 15 Teams = 105 Games; | 35 Rounds; | 4 Days [Days $1,2 \& 3=9$ Rounds each and Day $4=8$ Rounds]. |
| 16 Teams = 120 Games; | 40 Rounds; | ; 5 Days [8 Rounds each Day]. |
| 17 Teams = 136 Games; | 46 Rounds; | ; 6 Days [Days 1 to $5=8$ Rounds each and Day $6=6$ Rounds]. |
| 18 Teams = 153 Games; | 51 Rounds; | 7 Days [Day $1 \& 4$ to $7=7$ Rounds each and Day 2 \& $3=8$ Rounds each]. |
| 19 Teams = 171 Games; | 57 Rounds; | ; 7 Days [Day 1 = 9 Rounds and Day 2 to $7=8$ Rounds each]. |
| 20 Teams = 190 Games; | 64 Rounds; | ; 8 Days [8 Rounds each Day]. |

## Matters Considered

1. Endeavour equal amount of duties per team.
2. Endeavour equal amount times/uses on Courts 1, 2 and 3 for each team.
3. Endeavour equal amount of times of performing duties for each team on Courts 1, 2 and 3 .
4. Endeavour Not to have two consecutive games for the same team especially on the same court.
5. Endeavour Not to have a team perform duties for a game prior to playing another team on the same court.

## Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. |  |  | $4 \vee 5$ |  | $1 \vee 2$ |  | 3 |
| 2. | $2 \vee 4$ |  | $1 \vee 3$ |  |  |  | 5 |
| 3. | $3 \vee 5$ |  |  |  | $1 \vee 4$ |  | 2 |
| 4. |  |  | $3 \vee 5$ |  | $2 \vee 3$ |  | 4 |
| 5. | $2 \vee 5$ |  |  |  |  | 1 |  |

5 Teams = 10 Games; 5 Rounds; 1 Day.

## Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $3 \vee 6$ |  | $4 \vee 5$ |  | $1 \vee 2$ |  | Nil |
| 2. | $2 \vee 4$ |  | $1 \vee 3$ |  | $5 \vee 6$ |  | Nil |
| 3. | $3 \vee 5$ |  | $2 \vee 6$ |  | $1 \vee 4$ |  | Nil |
| 4. | $4 \vee 6$ |  | $3 \vee 5$ |  | $2 \vee 3$ |  | Nil |
| 5. | $2 \vee 5$ |  |  | $1 \vee 6$ |  | Nil |  |

6 Teams = 15 Games; 5 Rounds; 1 Day.

## Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $4 \vee 5$ |  | $3 \vee 6$ |  | $2 \vee 7$ |  | 1 |
| 2. | $3 \vee 5$ |  | $1 \vee 7$ |  | $4 \vee 6$ |  | 2 |
| 3. | $1 \vee 6$ |  | $2 \vee 5$ |  | $3 \vee 7$ |  | 4 |
| 4. | $2 \vee 6$ |  | $4 \vee 7$ |  | $1 \vee 5$ |  | 3 |
| 5. | $1 \vee 4$ |  | $2 \vee 3$ |  | $6 \vee 7$ |  | 5 |
| 6. | $5 \vee 7$ |  | $1 \vee 3$ |  | $2 \vee 4$ |  | 6 |
| 7. | $3 \vee 4$ |  | $5 \vee 6$ |  | $1 \vee 2$ |  | 7 |

7 Teams = 21 Games; 7 Rounds; 1 Day.

Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $1 \vee 8$ | 3 | $4 \vee 5$ | 6 | $2 \vee 7$ | 3 | Nil |
| 2. | $4 \vee 6$ | 2 | $1 \vee 7$ | 8 | $3 \vee 5$ | 2 | Nil |
| 3. | $2 \vee 5$ | 7 | $4 \vee 8$ | 3 | $1 \vee 6$ | 7 | Nil |
| 4. | $3 \vee 6$ | 5 | $1 \vee 4$ | 7 | $2 \vee 8$ | 5 | Nil |
| 5. | $1 \vee 5$ | 6 | $3 \vee 8$ | 2 | $4 \vee 7$ | 6 | Nil |
| 6. | $2 \vee 3$ | 1 | $6 \vee 7$ | 4 | $5 \vee 8$ | 1 | Nil |
| 7. | $5 \vee 7$ | 8 | $2 \vee 4$ | 6 | $1 \vee 3$ | 8 | Nil |
| 8. |  |  | $3 \vee 7$ | 5 | $2 \vee 6$ | 4 | 1,8 |
| 9. | $7 \vee 8$ | 1 | $5 \vee 6$ | 2 | $3 \vee 4$ | 1 | Nil |
| 10. | $1 \vee 2$ | 5 |  |  | $6 \vee 8$ | 4 | 3,7 |

8 Teams $=28$ Games; 10 Rounds; 1 Day.

## Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $1 \vee 9$ | 4 | $2 \vee 8$ | 5 | $3 \vee 7$ | 6 | Nil |
| 2. | $3 \vee 5$ | 9 | $1 \vee 6$ | 8 | $2 \vee 4$ | 7 | Nil |
| 3. | $2 \vee 7$ | 5 | $3 \vee 9$ | 6 | $1 \vee 8$ | 4 | Nil |
| 4. | $4 \vee 8$ | 1 | $5 \vee 7$ | 2 | $6 \vee 9$ | 3 | Nil |
| 5. | $6 \vee 7$ | 2 | $4 \vee 9$ | 3 | $5 \vee 8$ | 1 | Nil |
| 6. | $1 \vee 4$ | 7 | $2 \vee 5$ | 8 | $3 \vee 6$ | 9 | Nil |
| 7. | $2 \vee 6$ | 9 | $3 \vee 4$ | 7 | $1 \vee 5$ | 8 | Nil |

Day 2

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 8. | $3 \vee 8$ | 5 | $1 \vee 7$ | 4 | $2 \vee 9$ | 6 | Nil |
| 9. | $1 \vee 2$ | 8 | $5 \vee 6$ | 3 | $4 \vee 7$ | 9 | Nil |
| 10. | $4 \vee 6$ | 5 | $8 \vee 9$ | 1 | $2 \vee 3$ | 7 | Nil |
| 11. | $1 \vee 3$ | 6 | $7 \vee 8$ | 2 | $5 \vee 9$ | 4 | Nil |
| 12. | $7 \vee 9$ | 2 | $4 \vee 5$ | 3 | $6 \vee 8$ | 1 | Nil |

9 Teams = 36 Games; 12 Rounds; 2 Days [Day $1=7$ Rounds and Day $2=5$ Rounds].

Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $3 \vee 8$ | 5 | $1 \vee 10$ | 6 | $2 \vee 9$ | 4 | 7 |
| 2. | $4 \vee 9$ | 1 | $3 \vee 5$ | 7 | $6 \vee 10$ | 2 | 8 |
| 3. | $2 \vee 3$ | 9 | $4 \vee 6$ | 10 | $1 \vee 7$ | 8 | 5 |
| 4. | $6 \vee 7$ | 2 | $1 \vee 8$ | 4 | $5 \vee 9$ | 3 | 10 |
| 5. | $5 \vee 8$ | 3 | $7 \vee 10$ | 1 | $2 \vee 4$ | 9 | 6 |
| 6. | $1 \vee 9$ | 5 | $2 \vee 8$ | 6 | $3 \vee 10$ | 7 | 4 |
| 7. | $4 \vee 8$ | 2 | $3 \vee 7$ | 10 | $5 \vee 6$ | 9 | 1 |
| 8. | $1 \vee 3$ | 6 | $4 \vee 5$ | 8 | $2 \vee 10$ | 7 | 9 |

Day 2

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 9. | $1 \vee 6$ | 2 | $9 \vee 10$ | 4 | $7 \vee 8$ | 5 | 2 |
| 10. | $5 \vee 7$ | 9 | $6 \vee 8$ | 10 | $1 \vee 4$ | 3 | 6 |
| 11. | $4 \vee 10$ | 5 | $3 \vee 9$ | 6 | $2 \vee 7$ | 1 | 7 |
| 12. | $2 \vee 6$ | 3 | $1 \vee 5$ | 9 | $8 \vee 10$ | 4 | 2 |
| 13. | $5 \vee 10$ | 7 | $3 \vee 4$ | 1 | $6 \vee 9$ | 8 | 5 |
| 14. | $1 \vee 2$ | 3 | $8 \vee 9$ | 6 | $4 \vee 7$ | 5 | 10 |
| 15. | $7 \vee 9$ | 4 | $2 \vee 5$ | 8 | $3 \vee 6$ | 10 | 1 |

10 Teams $=45$ Games; 15 Rounds; 2 Days [Day $1=8$ Rounds and Day $2=7$ Rounds].

Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $3 \vee 9$ | 6 | $2 \vee 10$ | 4 | $1 \vee 7$ | 8 | 5,11 |
| 2. | $4 \vee 8$ | 2 | $5 \vee 7$ | 10 | $6 \vee 9$ | 3 | 1,11 |
| 3. | $1 \vee 10$ | 9 | $3 \vee 4$ | 11 | $5 \vee 8$ | 6 | 2,7 |
| 4. | $2 \vee 11$ | 10 | $6 \vee 8$ | 5 | $4 \vee 7$ | 1 | 3,9 |
| 5. | $6 \vee 7$ | 11 | $1 \vee 3$ | 8 | $2 \vee 9$ | 5 | 4,10 |
| 6. | $5 \vee 9$ | 2 | $4 \vee 11$ | 1 | $3 \vee 10$ | 7 | 6,8 |
| 7. | $1 \vee 6$ | 3 | $2 \vee 8$ | 5 | $9 \vee 11$ | 10 | 4,7 |

Day 2

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 8. | $2 \vee 4$ | 1 | $9 \vee 10$ | 6 | $3 \vee 5$ | 8 | 7,11 |
| 9. | $7 \vee 8$ | 1 | $3 \vee 11$ | 9 | $4 \vee 10$ | 2 | 5,6 |
| 10. | $5 \vee 11$ | 6 | $7 \vee 10$ | 4 | $1 \vee 9$ | 3 | 2,8 |
| 11. | $4 \vee 9$ | 5 | $2 \vee 6$ | 7 | $3 \vee 8$ | 1 | 10,11 |
| 12. | $1 \vee 2$ | 4 | $8 \vee 9$ | 11 | $5 \vee 10$ | 7 | 3,6 |
| 13. | $7 \vee 11$ | 8 | $1 \vee 5$ | 10 | $4 \vee 6$ | 9 | 2,3 |
| 14. | $10 \vee 11$ | 8 | $5 \vee 6$ | 3 | $2 \vee 7$ | 4 | 1,9 |

Day 3

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 15. | $3 \vee 7$ | 9 | $2 \vee 5$ | 10 | $1 \vee 11$ | 4 | 6,8 |
| 16. | $4 \vee 5$ | 7 | $1 \vee 8$ | 3 | $6 \vee 10$ | 11 | 2,9 |
| 17. | $8 \vee 10$ | 5 | $7 \vee 9$ | 6 | $2 \vee 3$ | 11 | 1,4 |
| 18. | $3 \vee 6$ | 7 | $1 \vee 4$ | 2 | $8 \vee 11$ | 9 | 5,10 |
| 19. |  |  | $6 \vee 11$ | 2 |  | $1,3,4,5,7,8,9,10$ |  |

11 Teams = 55 Games; 19 Rounds; 3 Days [Day $1 \& 2=7$ Rounds each and Day 3 = 5 Rounds].

Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $1 \vee 12$ | 5 | $2 \vee 11$ | 6 | $3 \vee 10$ | 4 | $7,8,9$ |
| 2. | $4 \vee 9$ | 3 | $5 \vee 8$ | 1 | $6 \vee 7$ | 2 | $10,11,12$ |
| 3. | $2 \vee 10$ | 7 | $3 \vee 12$ | 9 | $1 \vee 11$ | 8 | $4,5,6$ |
| 4. | $5 \vee 9$ | 10 | $6 \vee 8$ | 12 | $4 \vee 7$ | 11 | $1,2,3$ |
| 5. | $3 \vee 11$ | 1 | $4 \vee 10$ | 2 | $5 \vee 12$ | 6 | $7,8,9$ |
| 6. | $6 \vee 12$ | 4 | $1 \vee 9$ | 3 | $2 \vee 8$ | 5 | $7,10,11$ |
| 7. | $7 \vee 8$ | 5 | $6 \vee 10$ | 4 | $9 \vee 12$ | 11 | $1,2,3$ |

Day 2

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 8. | $1 \vee 4$ | 9 | $7 \vee 11$ | 8 | $2 \vee 5$ | 10 | $3,6,12$ |
| 9. | $8 \vee 10$ | 12 | $3 \vee 4$ | 7 | $6 \vee 9$ | 1 | $2,5,11$ |
| 10. | $2 \vee 6$ | 11 | $1 \vee 5$ | 10 | $3 \vee 8$ | 7 | $4,9,12$ |
| 11. | $3 \vee 5$ | 6 | $2 \vee 7$ | 11 | $1 \vee 10$ | 9 | $4,8,12$ |
| 12. | $7 \vee 10$ | 3 | $8 \vee 9$ | 12 | $4 \vee 11$ | 12 | $1,5,6$ |
| 13. | $2 \vee 12$ | 8 | $4 \vee 6$ | 1 | $3 \vee 9$ | 10 | $5,7,11$ |
| 14. | $9 \vee 11$ | 6 | $3 \vee 7$ | 5 | $4 \vee 12$ | 1 | $2,8,10$ |
| 15. | $1 \vee 7$ | 5 | $8 \vee 12$ | 4 | $2 \vee 3$ | 9 | $6,10,11$ |

Day 3

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 16. | $4 \vee 5$ | 7 | $2 \vee 9$ | 6 | $1 \vee 8$ | 3 | $10,11,12$ |
| 17. | $1 \vee 3$ | 2 | $11 \vee 12$ | 8 | $5 \vee 6$ | 4 | $7,9,10$ |
| 18. | $10 \vee 12$ | 11 | $1 \vee 6$ | 3 | $2 \vee 4$ | 7 | $5,8,9$ |
| 19. | $3 \vee 6$ | 2 | $9 \vee 10$ | 12 | $5 \vee 11$ | 8 | $1,4,7$ |
| 20. | $8 \vee 11$ | 10 | $5 \vee 7$ | 9 | $1 \vee 2$ | 12 | $3,4,6$ |
| 21. | $7 \vee 12$ | 9 | $4 \vee 8$ | 3 | $10 \vee 11$ | 6 | $1,2,5$ |
| 22. | $5 \vee 10$ | 4 | $6 \vee 11$ | 12 | $7 \vee 9$ | 8 | $1,2,3$ |

12 Teams = 66 Games; 22 Rounds; 3 Days [Day $1 \& 3=7$ Rounds each and Day $2=8$ Rounds].

Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $1 \vee 13$ | 5 | $2 \vee 12$ | 4 | $3 \vee 11$ | 7 | $6,8,9,10$ |
| 2. | $4 \vee 10$ | 11 | $5 \vee 9$ | 12 | $6 \vee 8$ | 13 | $1,2,3,7$ |
| 3. | $2 \vee 9$ | 8 | $3 \vee 13$ | 6 | $1 \vee 12$ | 10 | $4,7,8,11$ |
| 4. | $6 \vee 7$ | 1 | $10 \vee 11$ | 3 | $2 \vee 13$ | 9 | $4,5,8,12$ |
| 5. | $3 \vee 5$ | 2 | $1 \vee 8$ | 12 | $4 \vee 7$ | 6 | $9,10,11,12$ |
| 6. | $11 \vee 12$ | 13 | $4 \vee 6$ | 9 | $5 \vee 10$ | 8 | $1,2,3,7$ |
| 7. | $8 \vee 10$ | 3 | $7 \vee 13$ | 1 | $9 \vee 12$ | 2 | $4,5,6,11$ |
| 8. | $1 \vee 6$ | 10 | $2 \vee 5$ | 7 | $3 \vee 8$ | 4 | $9,11,12,13$ |
| 9. | $4 \vee 9$ | 7 | $6 \vee 10$ | 2 | $11 \vee 13$ | 5 | $1,3,8,12$ |

## Day 2

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 10. | $12 \vee 13$ | 6 | $1 \vee 9$ | 5 | $7 \vee 8$ | 3 | $2,4,10,11$ |
| 11. | $2 \vee 3$ | 9 | $4 \vee 11$ | 8 | $1 \vee 10$ | 12 | $5,6,7,13$ |
| 12. | $5 \vee 8$ | 4 | $3 \vee 7$ | 10 | $6 \vee 9$ | 11 | $1,2,12,13$ |
| 13. | $7 \vee 11$ | 5 | $8 \vee 12$ | 13 | $2 \vee 4$ | 1 | $3,6,9,10$ |
| 14. | $3 \vee 6$ | 12 | $1 \vee 11$ | 9 | $5 \vee 13$ | 4 | $2,7,8,10$ |
| 15. | $4 \vee 13$ | 2 | $7 \vee 10$ | 11 | $8 \vee 9$ | 3 | $1,5,6,12$ |
| 16. | $1 \vee 5$ | 7 | $2 \vee 8$ | 13 | $6 \vee 11$ | 9 | $3,4,10,12$ |
| 17. | $8 \vee 11$ | 6 | $4 \vee 12$ | 1 | $3 \vee 10$ | 7 | $2,5,9,13$ |
| 18. | $2 \vee 7$ | 4 | $3 \vee 9$ | 8 | $5 \vee 12$ | 10 | $1,6,11,13$ |

## Day 3

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 19. | $1 \vee 7$ | 8 | $9 \vee 10$ | 5 | $6 \vee 12$ | 11 | $2,3,4,13$ |
| 20. | $3 \vee 4$ | 10 | $1 \vee 2$ | 6 | $7 \vee 9$ | 13 | $5,8,11,12$ |
| 21. | $6 \vee 13$ | 9 | $5 \vee 7$ | 2 | $1 \vee 3$ | 12 | $4,8,10,11$ |
| 22. | $3 \vee 12$ | 1 | $10 \vee 13$ | 4 | $2 \vee 11$ | 5 | $6,7,8,9$ |
| 23. | $2 \vee 10$ | 12 | $5 \vee 6$ | 13 | $1 \vee 4$ | 8 | $3,7,9,11$ |
| 24. | $5 \vee 11$ | 3 | $7 \vee 12$ | 9 | $2 \vee 6$ | 1 | $4,8,10,13$ |
| 25. | $8 \vee 13$ | 7 | $4 \vee 5$ | 10 | $9 \vee 11$ | 2 | $1,3,6,12$ |
| 26. | $10 \vee 12$ | 11 | $9 \vee 13$ | 3 | $4 \vee 8$ | 6 | $1,2,5,7$ |

13 Teams = 78 Games; 26 Rounds; 3 Days [Day $1 \& 2=9$ Rounds each Day and Day $3=8$ Rounds]

## FORM 2

## 4 Courts

## 8 to 15 Teams

## Can be used either for Round Robin or Block Format.

## 4 Courts is effective and viable for up to 15 teams.

| 8 Teams = 28 Games; | 7 Rounds; 1 | 1 Day. |
| :---: | :---: | :---: |
| 9 Teams = 36 Games; | 9 Rounds; | 1 Day. |
| 10 Teams = 45 Games; | 12 Rounds; | 2 Days [6 Rounds each Day]. |
| 11 Teams = 55 Games; | 14 Rounds; | 2 Days [7 Rounds each Day]. |
| 12 Teams = 66 Games; | 17 Rounds; | 2 Days [Day $1=9$ Rounds and Day $2=8$ Rounds]. |
| 13 Teams = 78 Games; | 20 Rounds; | 3 Days [Day $1 \& 2=7$ Rounds each and Day $3=6$ Rounds]. |
| 14 Teams = 91 Games; | 23 Rounds; | 3 Days [Day $1 \& 2=8$ Rounds each and Day $3=7$ Rounds]. |
| 15 Teams = 105 Games; | 27 Rounds; | ; 3 Days [9 Rounds each Day]. |
| 16 Teams = 120 Games; | 30 Rounds; | ; 4 Days [Day $1,2 \& 3=8$ Rounds each and Day $4=6$ Rounds]. |
| 17 Teams = 136 Games; | 34 Rounds; | ; 4 Days [Day $1 \& 4=8$ Rounds each and Day $2 \& 3=9$ Rounds each]. |
| 18 Teams = 153 Games; | 39 Rounds; | ; 5 Days [Day 1, 2, 3 \& $4=8$ Rounds each and Day $5=7$ Rounds]. |
| 19 Teams = 171 Games; | 43 Rounds; | ; 5 Days [Day 1, 2, 3 \& $4=9$ Rounds each and Day $5=7$ Rounds]. |
| 20 Teams = 190 Games; | 48 Rounds; | ; 6 Days [8 Rounds each Day]. |

## Matters Considered

1. Endeavour equal amount of duties per team.
2. Endeavour equal amount times/uses on Courts 1, 2, 3 and 4 for each team.
3. Endeavour equal amount of times of performing duties for each team on Courts 1, 2, 3 and 4 .
4. Endeavour Not to have two consecutive games for the same team especially on the same court.
5. Endeavour Not to have a team perform duties for a game prior to playing another team on the same court.

## Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $4 \vee 7$ |  | $5 \vee 6$ |  | $3 \vee 8$ |  | $1 \vee 2$ |  | Nil |
| 2. | $5 \vee 8$ |  | $1 \vee 3$ |  | $2 \vee 4$ |  | $6 \vee 7$ |  | Nil |
| 3. | $1 \vee 4$ |  | $2 \vee 6$ |  | $7 \vee 8$ |  | $3 \vee 5$ |  | Nil |
| 4. | $3 \vee 7$ |  | $1 \vee 5$ |  | $4 \vee 6$ |  | $2 \vee 8$ |  | Nil |
| 5. | $1 \vee 6$ |  | $4 \vee 8$ |  | $2 \vee 3$ |  | $5 \vee 7$ |  | Nil |
| 6. | $2 \vee 5$ |  | $1 \vee 7$ |  | $6 \vee 8$ |  | $3 \vee 4$ |  | Nil |
| 7. | $3 \vee 6$ |  | $4 \vee 5$ |  | $2 \vee 7$ |  | $1 \vee 8$ |  | Nil |

## Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $1 \vee 9$ | 5 | $2 \vee 8$ | 5 | $3 \vee 7$ | 5 | $4 \vee 6$ | 5 | Nil |
| 2. | $3 \vee 5$ | 8 | $1 \vee 6$ | 8 | $2 \vee 4$ | 8 | $7 \vee 9$ | 8 | Nil |
| 3. | $2 \vee 7$ | 4 | $3 \vee 9$ | 4 | $1 \vee 8$ | 4 | $5 \vee 6$ | 4 | Nil |
| 4. | $4 \vee 8$ | 2 | $5 \vee 7$ | 2 | $6 \vee 9$ | 2 | $1 \vee 3$ | 2 | Nil |
| 5. | $6 \vee 7$ | 1 | $4 \vee 9$ | 1 | $2 \vee 3$ | 1 | $5 \vee 8$ | 1 | Nil |
| 6. | $1 \vee 4$ | 9 | $2 \vee 5$ | 9 | $7 \vee 8$ | 9 | $3 \vee 6$ | 9 | Nil |
| 7. | $2 \vee 6$ | 7 | $3 \vee 4$ | 7 | $1 \vee 5$ | 7 | $8 \vee 9$ | 7 | Nil |
| 8. | $3 \vee 8$ | 6 | $1 \vee 7$ | 6 | $2 \vee 9$ | 6 | $4 \vee 5$ | 6 | Nil |
| 9. | $5 \vee 9$ | 3 | $6 \vee 8$ | 3 | $4 \vee 7$ | 3 | $1 \vee 2$ | 3 | Nil |

9 Teams = 36 Games; 9 Rounds; 1 Day.

## Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $1 \vee 10$ | 6 | $2 \vee 9$ | 5 | $3 \vee 8$ | 5 | $4 \vee 7$ | 6 | Nil |
| 2. | $3 \vee 7$ | 10 | $4 \vee 8$ | 10 | $2 \vee 6$ | 9 | $1 \vee 5$ | 9 | Nil |
| 3. | $2 \vee 8$ | 10 | $1 \vee 9$ | 10 | $4 \vee 5$ | 3 | $6 \vee 7$ | 3 | Nil |
| 4. | $9 \vee 10$ | 7 | $4 \vee 6$ | 8 | $1 \vee 2$ | 8 | $3 \vee 5$ | 7 | Nil |
| 5. | $5 \vee 6$ | 2 | $7 \vee 10$ | 1 | $3 \vee 4$ | 2 | $8 \vee 9$ | 1 | Nil |
| 6. | $3 \vee 9$ | 8 |  |  | $5 \vee 7$ | 6 | $2 \vee 10$ | 4 | 1 |

## Day 2

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 7. | $1 \vee 4$ | 10 | $2 \vee 5$ | 9 | $3 \vee 6$ | 9 | $7 \vee 8$ | 10 | Nil |
| 8. | $6 \vee 10$ | 1 | $7 \vee 9$ | 4 | $5 \vee 8$ | 4 | $2 \vee 3$ | 1 | Nil |
| 9. | $2 \vee 4$ | 3 | $8 \vee 10$ | 3 | $1 \vee 6$ | 7 | $5 \vee 9$ | 7 | Nil |
| 10. | $3 \vee 10$ | 2 | $1 \vee 7$ | 2 | $4 \vee 9$ | 5 | $6 \vee 8$ | 5 | Nil |
| 11. | $1 \vee 8$ | 3 | $6 \vee 9$ | 5 | $2 \vee 7$ | 3 | $4 \vee 10$ | 5 | Nil |
| 12. | $5 \vee 10$ | 8 | $1 \vee 3$ | 4 |  |  |  |  | $2,6,7,9$ |

10 Teams = 45 Games; 12 Rounds; 2 Days [6 Rounds each Day].

## Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | $1 \times 11$ | 7 | $2 \vee 10$ | 5 | $3 \vee 9$ | 6 | $4 \vee 8$ | 6 | Nil |
| 2. | $5 \vee 8$ | 3 | $6 \vee 9$ | 4 | $7 \vee 10$ | 1 | $2 \vee 11$ | 4 | Nil |
| 3. | $9 \times 10$ | 5 | $8 \times 11$ | 2 | $4 \vee 6$ | 1 | $3 \vee 7$ | 5 | Nil |
| 4. | $2 \vee 7$ | 4 | 1 v 3 | 8 | $5 \vee 11$ | 9 | $6 \vee 10$ | 9 | Nil |
| 5. | $3 \vee 6$ | 9 | $4 \vee 7$ | 11 | $2 \vee 8$ | 10 | $1 \vee 5$ | 10 | Nil |
| 6. | $4 \times 11$ | 8 | $5 \times 10$ | 8 | 1 v 6 | 3 | $7 \times 9$ | 2 | Nil |
| 7. | $2 \vee 9$ | 6 | $3 \vee 11$ | 1 | $8 \vee 10$ | 7 | $4 \vee 5$ | 1 | Nil |

## Day 2

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 8. | $6 \vee 7$ | 11 | $1 \vee 8$ | 9 | $2 \vee 4$ | 11 | $3 \vee 10$ | 5 | Nil |
| 9. | $3 \vee 4$ | 2 | $6 \vee 11$ | 10 | $5 \vee 7$ | 8 | $1 \vee 9$ | 8 | Nil |
| 10. | $5 \vee 6$ | 10 | $1 \vee 7$ | 11 | $4 \vee 9$ | 11 | $2 \vee 3$ | 8 | Nil |
| 11. | $7 \vee 8$ | 11 | $5 \vee 9$ | 3 | $2 \vee 6$ | 4 | $1 \vee 10$ | 3 | Nil |
| 12. | $3 \vee 5$ | 2 | $1 \vee 4$ | 6 | $7 \vee 11$ | 2 | $8 \vee 9$ | 10 | Nil |
| 13. | $9 \vee 11$ | 7 | $3 \vee 8$ | 7 | $4 \vee 10$ | 6 | $1 \vee 2$ | 5 | Nil |
| 14. | $6 \vee 8$ | 1 | $10 \vee 11$ | 3 | $2 \vee 5$ | 4 |  | $7 \& 9$ |  |

[^1]
## Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | 1 v 12 | 5 | $3 \vee 10$ | 7 | $2 \vee 11$ | 6 | $4 \vee 9$ | 8 | Nil |
| 2. | $8 \vee 9$ | 1 | $5 \vee 12$ | 2 | 7 v 10 | 3 | 6 v 11 | 4 | Nil |
| 3. | $4 \times 6$ | 8 | $1 \vee 10$ | 5 | $2 \vee 9$ | 11 | $3 \vee 7$ | 12 | Nil |
| 4. | $3 \vee 11$ | 9 | $4 \vee 7$ | 12 | $1 \times 8$ | 5 | 2 v 6 | 10 | Nil |
| 5. | $5 \vee 10$ | 1 | $6 \vee 9$ | 2 | $4 \times 11$ | 3 | $8 \vee 12$ | 7 | Nil |
| 6. | $2 \vee 7$ | 4 | $3 \vee 8$ | 10 | $5 \vee 6$ | 11 | $1 \vee 9$ | 12 | Nil |
| 7. | $1 \vee 6$ | 3 | $2 \vee 12$ | 4 | $7 \times 9$ | 10 | $5 \vee 11$ | 6 | Nil |
| 8. | $2 \vee 10$ | 9 | $8 \vee 11$ | 3 | $6 \vee 12$ | 5 | $1 \vee 7$ | 4 | Nil |
| 9. | 1 v 11 | 2 | 7 v 8 | 5 | $3 \vee 4$ | 6 | 10 v 12 | 9 | Nil |

## Day 2

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 10. | $3 \vee 6$ | 12 | $2 \vee 4$ | 10 | $1 \vee 5$ | 9 | $7 \vee 11$ | 8 | Nil |
| 11. | $5 \vee 7$ | 8 | $9 \vee 11$ | 2 | $3 \vee 12$ | 6 | $4 \vee 10$ | 1 | Nil |
| 12. | $3 \vee 9$ | 11 | $7 \vee 12$ | 10 | $4 \vee 8$ | 1 | $2 \vee 5$ | 6 | Nil |
| 13. | $1 \vee 4$ | 5 | $2 \vee 3$ | 6 | $11 \vee 12$ | 9 | $8 \vee 10$ | 7 | Nil |
| 14. | $2 \vee 8$ | 7 | $10 \vee 11$ | 4 | $1 \vee 3$ | 12 | $5 \vee 9$ | 6 | Nil |
| 15. | $4 \vee 5$ | 3 | $9 \vee 12$ | 8 | $6 \vee 7$ | 10 | $1 \vee 2$ | 11 | Nil |
| 16. | $9 \vee 10$ | 11 | $6 \vee 8$ | 7 | $3 \vee 5$ | 1 | $4 \vee 12$ | 2 | Nil |
| 17. |  |  |  |  | $6 \vee 10$ | 11 | $5 \vee 8$ | 7 | $1,2,3,4,9,12$ |

12 Teams $=66$ Games; 17 Rounds; 2 Days [Day $1=9$ Rounds and Day $2=8$ Rounds].

## FORM 2

## 5 Courts

## 9 to 17 Teams

## Can be used either for Round Robin or Block Format.

## 5 Courts is effective and viable for up to 17 teams.

| 9 Teams = 36 Games; | 8 Rounds; 1 | 1 Day. |
| :---: | :---: | :---: |
| 10 Teams = 45 Games; | 9 Rounds; | 1 Day. |
| 11 Teams = 55 Games; | 11 Rounds; | 2 Days [Day $1=7$ Rounds and Day $2=4$ Rounds]. |
| 12 Teams = 66 Games; | 14 Rounds; | 2 Days [Day $1 \& 2=7$ Rounds each]. |
| 13 Teams = 78 Games; | 16 Rounds; | 2 Days [Day $1 \& 2=8$ Rounds each]. |
| 14 Teams = 91 Games; | 19 Rounds; | 2 Days [Day $1=9$ Rounds and Day $2=10$ Rounds]. |
| 15 Teams = 105 Games; | 21 Rounds; | ; 3 Days [Day 1 to $3=7$ Rounds each]. |
| 16 Teams = 120 Games; | 24 Rounds; | ; 3 Days [Day 1 to $3=8$ Rounds each]. |
| 17 Teams = 136 Games; | 28 Rounds; | ; 3 Days [Day $1 \& 3=9$ Rounds each and Day $2=10$ Rounds]. |
| 18 Teams = 153 Games; | 31 Rounds; | ; 4 Days [Day 1 to $3=8$ Rounds each and Day $4=7$ Rounds]. |
| 19 Teams = 171 Games; | 35 Rounds; | ; 4 Days [Day 1 to $3=9$ Rounds each and Day $4=8$ Rounds]. |
| 20 Teams = 190 Games; | 38 Rounds; | ; 4 Days [Day $1 \& 4=9$ Rounds and Day $2 \& 3=10$ Rounds]. |
| 21 Teams = 210 Games; | 42 Rounds; | ; 5 Days [Day 1, 4 \& $5=8$ Rounds each and Day $2 \& 3=9$ Rounds each]. |
| 22 Teams = 231 Games; | 47 Rounds; | ; 5 Days [Day 1, 4 \& $5=9$ Rounds each and Day 2 \& $3=10$ Rounds each] |
| 23 Teams = 253 Games; | 51 Rounds; | ; 6 Days [Day 1, $5 \& 6=8$ Rounds each and Day 2 to $4=9$ Rounds each]. |
| 24 Teams = 276 Games; | 56 Rounds; | ; 7 Days [Day 1 to $7=8$ Rounds each]. |
| 25 Teams = 300 Games; | 60 Rounds; | ; 7 Days [Day 1, 6 \& $7=8$ Rounds each and Day 2 to $5=9$ Rounds each]. |

## Matters Considered

1. Endeavour equal amount of duties per team.
2. Endeavour equal amount times/uses on Courts 1, 2, 3, 4 and 5 for each team.
3. Endeavour equal amount of times of performing duties for each team on Courts 1, 2, 3, 4 and 5.
4. Endeavour Not to have two consecutive games for the same team especially on the same court.
5. Endeavour Not to have a team perform duties for a game prior to playing another team on the same court.

## Form 2 - Draw Schedule 5 Courts - 10 Teams

Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Court 5 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1 | $1 \vee 5$ |  | $2 \vee 9$ |  | $4 \vee 7$ |  | $3 \vee 8$ |  | $5 \vee 6$ |  | Nil |
| 2 | $4 \vee 6$ |  | $3 \vee 7$ |  | $2 \vee 8$ |  | 5 v 10 |  | $1 \vee 9$ |  | Nil |
| 3 | $2 \vee 7$ |  | 1 v 8 |  | $9 \times 10$ |  | $3 \vee 6$ |  | $4 \vee 5$ |  | Nil |
| 4 | $4 \vee 10$ |  | $3 \vee 5$ |  | $1 \vee 7$ |  | $8 \vee 9$ |  | $2 \vee 6$ |  | Nil |
| 5 | $1 \vee 6$ |  | $4 \vee 9$ |  | $2 \vee 5$ |  | $3 \vee 10$ |  | $7 \times 8$ |  | Nil |
| 6 | $3 \vee 9$ |  | $1 \vee 5$ |  | $4 \vee 8$ |  | $6 \vee 7$ |  | $2 \vee 10$ |  | Nil |
| 7 | $1 \vee 4$ |  | $2 \vee 3$ |  | $7 \times 10$ |  | $5 \vee 9$ |  | $6 \vee 8$ |  | Nil |
| 8 | $5 \vee 8$ |  | $6 \times 10$ |  | $1 \vee 3$ |  | $2 \vee 4$ |  | $7 \vee 9$ |  | Nil |
| 9 | $6 \vee 9$ |  | $3 \vee 4$ |  | $8 \vee 10$ |  | $5 \vee 7$ |  | $1 \vee 2$ |  | Nil |

10 Teams = 45 Games; 9 Rounds; 1 Day.

## Form 2 - Draw Schedule 5 Courts - 13 Teams

Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Court 5 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1. | 1 v 2 | 3 | $4 \times 13$ | 8 | 5 v 12 | 9 | 6 v 11 | 3 | 7 v 10 | 8, 9 | Nil |
| 2. | 8 v 9 | 10 | 1 v 3 | 5 | 2 v 4 | 11 | 7 v 12 | 10 | 6 v 13 | 5,11 | Nil |
| 3. | $3 \vee 5$ | 6 | $8 \vee 11$ | 7 | $9 \vee 10$ | 13 | $1 \vee 4$ | 6 | $2 \vee 12$ | 7,13 | Nil |
| 4. | $7 \times 11$ | 2 | $9 \vee 13$ | 4 | $3 \vee 6$ | 12 | $5 \vee 8$ | 4 | 1 v 10 | 2, 12 | Nil |
| 5. | 12 v 13 | 1 | $2 \vee 6$ | 10 | 7 v 8 | 11 | $3 \vee 9$ | 10 | $4 \vee 5$ | 1,11 | Nil |
| 6. | $10 \times 11$ | 12 | $5 \vee 9$ | 6 | 1 v 13 | 4 | $2 \vee 7$ | 4 | $3 \vee 8$ | 6, 12 | Nil |
| 7. | $4 \vee 6$ | 7 | 10 v 12 | 8 | 2v11 | 5 | $3 \vee 13$ | 7 | $1 \vee 9$ | 5, 8 | Nil |
| 8. | $1 \vee 12$ | 9 | $4 \vee 7$ | 2 | 6 v 8 | 13 | $5 \times 10$ | 2 | $3 \vee 11$ | 9, 13 | Nil |

## Form 2 - Draw Schedule 5 Courts - 13 Teams

Day 2

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Court 5 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 9. | 2 v 5 | 7 | $8 \vee 13$ | 3 | $9 \times 12$ | 11 | 1 v 6 | 3 | $4 \times 10$ | 7,11 | Nil |
| 10. | $3 \vee 4$ | 8 | 1 v 11 | 10 | 2 v 13 | 12 | $7 \vee 9$ | 8 | 5 v 6 | 10, 12 | Nil |
| 11. | 6 v 10 | 9 | 3 v 12 | 4 | $1 \vee 7$ | 5 | 11 v 13 | 9 | 2 v 8 | 4, 5 | Nil |
| 12. | 7 v 13 | 2 | 1 v | 3 | $4 \vee 9$ | 6 | 8 v 10 | 6 | 11 v 12 | 2, 3 | Nil |
| 13. | 6 v 12 | 7 | $4 \times 11$ | 9 | 1 v 8 | 5 | 2 v 3 | 5 | 10 v 13 | 7, 9 | Nil |
| 14. | $5 \vee 13$ | 1 | 2 v 10 | 6 | $3 \vee 7$ | 8 | $9 \vee 11$ | 1 | $4 \vee 12$ | 6, 8 | Nil |
| 15. |  |  | $4 \vee 8$ | 1 | $6 \vee 9$ | 2 | $3 \vee 10$ | 11 | $5 \vee 7$ | 12 | 13 |
| 16. | $8 \vee 12$ | 13 | $6 \vee 7$ | 3 | $5 \times 11$ | 4 | $2 \vee 9$ | 10 |  |  | 1 |

13 Teams $=78$ Games; 16 Rounds; 2 Days [Day $1 \& 2=8$ Rounds each].

## FORM 2

## 6 Courts

## 10 to 19 Teams

## Can be used either for Round Robin or Block Format.

## 6 Courts is effective and viable for up to 19 teams



## Matters Considered

1. Endeavour equal amount of duties per team.
2. Endeavour equal amount times/uses on Courts 1, 2, 3, 4, 5 and 6 for each team.
3. Endeavour equal amount of times of performing duties for each team on Courts 1, 2, 3, 4, 5 and 6.
4. Endeavour Not to have two consecutive games for the same team especially on the same court.
5. Endeavour Not to have a team perform duties for a game prior to playing another team on the same court.

## Form 2 - Draw Schedule 6 Courts - 14 Teams

Day 1

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Court 5 |  | Court 6 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 1 | 1 v 8 | 11 | $2 \vee 7$ | 11 | $3 \vee 9$ | 11 | 4 v 10 | 13 | $5 \vee 12$ | 13 | 6 v 14 | 13 | Nil |
| 2 | $5 \vee 14$ | 2 | $8 \vee 13$ | 2 | $7 \times 12$ | 2 | $6 \vee 11$ | 4 | $3 \vee 10$ | 4 | $1 \vee 9$ | 4 | Nil |
| 3 | $6 \vee 10$ | 9 | 1 v 11 | 9 | 2 v 8 | 9 | $3 \vee 7$ | 12 | $4 \vee 14$ | 12 | $5 \vee 13$ | 12 | Nil |
| 4 | $2 \vee 14$ | 3 | $4 \vee 9$ | 3 | $1 \vee 13$ | 3 | $6 \vee 12$ | 5 | $7 \vee 11$ | 5 | $8 \vee 10$ | 5 | Nil |
| 5 | $5 \vee 7$ | 13 | $1 \times 14$ | 13 | $6 \vee 9$ | 13 | $2 \times 11$ | 10 | $3 \vee 8$ | 10 | $4 \vee 12$ | 10 | Nil |
| 6 | $2 \vee 9$ | 1 | $7 \times 10$ | 1 | $8 \vee 12$ | 1 | $4 \vee 13$ | 6 | $5 \vee 11$ | 6 | $3 \vee 14$ | 6 | Nil |
| 7 | $4 \vee 11$ | 14 | $6 \vee 8$ | 14 | $5 \vee 10$ | 14 | $1 \vee 7$ | 9 | $3 \vee 12$ | 9 | $2 \vee 13$ | 9 | Nil |
| 8 | $7 \times 9$ | 12 | 2 v 10 | 12 | $3 \vee 11$ | 12 | $8 \vee 14$ | 4 | $6 \vee 13$ | 4 | $1 \vee 5$ | 4 | Nil |

## Form 2 - Draw Schedule 6 Courts - 14 Teams

Day 2

| Round | Court 1 |  | Court 2 |  | Court 3 |  | Court 4 |  | Court 5 |  | Court 6 |  | Spare Teams |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties | Playing | Duties |  |
| 9 | $2 \vee 12$ | 11 | $3 \vee 13$ | 11 | $4 \vee 8$ | 11 | $5 \vee 9$ | 14 | 1 v 10 | 14 | $6 \vee 7$ | 14 | Nil |
| 10 | $12 \times 14$ | 5 | $10 \times 11$ | 5 | $2 \vee 3$ | 5 | $7 \times 13$ | 6 | $8 \vee 9$ | 6 | $1 \vee 4$ | 6 | Nil |
| 11 | $2 \vee 6$ | 14 | $4 \vee 7$ | 14 | $9 \vee 10$ | 14 | $5 \vee 8$ | 11 | $1 \vee 3$ | 11 | $12 \times 13$ | 11 | Nil |
| 12 | 13 v 14 | 10 | $5 \vee 6$ | 10 | 11 v 12 | 10 | $2 \vee 4$ | 1 |  |  | $7 \times 8$ | 1 | 3, 9 |
| 13 | $1 \vee 2$ | 7 | $9 \vee 13$ | 7 | $3 \vee 6$ | 7 | 11 v 14 | 8 | 10 v 12 | 8 | $4 \times 5$ | 8 | Nil |
| 14 | $9 \times 12$ | 8 | $10 \times 14$ | 8 |  |  | $4 \times 6$ | 7 | $3 \vee 5$ | 7 | 11 v 13 | 7 | 1, 2 |
| 15 | $8 \vee 11$ | 12 | $3 \vee 4$ | 12 | 10 v 13 | 12 | $2 \vee 5$ | 7 | $1 \vee 6$ | 7 | $9 \vee 14$ | 7 | Nil |
| 16 |  |  | 1 v 12 | 2 | $7 \times 14$ | 3 |  |  | $9 \times 11$ | 4 |  |  | $5,6,8,10,13$ |


[^0]:    8 Teams = 28 Games; 14 Rounds; 2 Days [7 Rounds each Day].

[^1]:    11 Teams = 55 Games; 14 Rounds; 2 Days [7 Rounds each Day].

