

The best way to find the day on a particular date is to find the number of **odd days** until that day. The remainder obtained on dividing the total number of days since 1 January 0001 until the date for which day has to be calculated by 7(days of week) is called odd days until that day. It is not as difficult as you might be thinking.

- 1 January 0001 was Monday.
- There are 5 odd days in 100 years, 3 odd days in 200 years, 1 odd day in 300 years and 0 odd days in 400 years.
- Every fourth hundred year is a non leap year.
- A leap year has 2 odd days while a non leap year has 1 odd day.

### Example

What will be the day on 15 July 2015?

1. In 400 years there are 0 odd days so in 2000 years there will be 0 odd days.
2. In 14 years there are 3 leap years and 11 non leap years.

Each leap year will have 2 odd days and each non leap year will have one odd day.

$(3 \times 2) + (11 \times 1) = 17$  odd days.

\*17 odd days will again make 2 weeks so number of odd days will be  $17 \div 7$  remainder i.e. 3 odd days.

3. Number of days from January 2015 to June 2015 will be  $31 + 28 + 31 + 30 + 31 + 31 = 181$ .

Number of odd days will be  $181 \div 7$  remainder i.e. 6

4. Odd days till 15th July will be  $15 \div 7$  remainder i.e. 1.

Total odd days =  $3 + 6 + 1 = 10$

10 days would make one more week so final odd days would be  $10 \div 7$  remainder i.e. 3.

If number of odd days are:

- 1- Monday
- 2- Tuesday
- 3- Wednesday
- 4- Thursday
- 5- Friday
- 6- Saturday
- 0- Sunday

Therefore 15th July 2015 has 3 odd days i.e. 15th July 2015 is Wednesday which is the correct answer.