



## DEPARTMENT OF EMPLOYMENT AND TRAINING

### TNPSC GROUP II A MAINS - UNIT II

**Course :** TNPSC Group II A Mains Material

**Subject :** General Intelligence and Reasoning

**Topic :** Calendar

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Director,  
Department of Employment and Training.

## Calendar

### **Calendar:**

A calendar is a structured system used to organize days, weeks, and months, allowing us to track and manage time. It typically divides the year into months, and the months into weeks and days. This system helps us determine the specific date, the day of the week, or the time of year for any given moment.

### **Parts of Calendar:**

#### **Day:**

As the smallest unit of time in the calendar, a day consists of 24 hours and is one of the 7 parts of a week.

Days	No of Odd Days
Sunday	0
Monday	1
Tuesday	2
Wednesday	3
Thursday	4
Friday	5
Saturday	6

#### **Week:**

A week is a set of 7 days. The seven days are named Sunday through Saturday. A year contains 52 weeks.

#### **Month:**

A month consists of 28 to 31 days, and there are 12 months in a year. The variation in the number of days across months is due to the Earth's orbit around the Sun, with February being the shortest month. In a leap year, February has 29 days.

#### **Year:**

A year represents the time it takes for the Earth to complete one orbit around the Sun, which is approximately 365.25 days. To account for the extra 0.25 day each year, a leap year occurs every 4 years, adding an extra day to the year.

#### **Century:**

A century consists of 100 years. This helps divide long periods of time for historical and future reference.  
Example: 100, 200, 300 years

#### Ordinary Year:

An ordinary year has 365 days, which is 52 weeks plus one extra day (known as the "odd day"). These years are not divisible by 4.  
For example, 2023 is an ordinary year.

#### Leap Year:

A leap year has 366 days, which is 52 weeks plus two days. Leap years occur every 4 years, but years divisible by 100 are not leap years unless they are also divisible by 400. For example, 2024 will be a leap year, while 2100 will not be, even though it's divisible by 4.

#### Odd Days:

Odd days means those extra days which cannot make a complete week. To find the odd day candidates need to divide that particular number by 7 until a remainder is obtained which is less than 7.

Example:

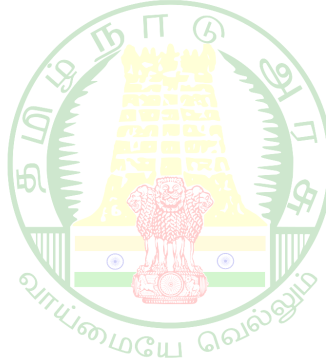
January - 31 days:

No of Odd days =  $31/7 = 28 + 3$

Here, 3 Odd days.

#### Types of Questions:

1. Counting Odd Days
2. With reference date
3. Without reference date
4. Repeating year



#### Counting Odd Days:

In these types of questions, candidates are asked to determine the number of odd days in a specific year or within a particular period. The number of odd days is calculated by dividing the total number of days by 7, and the remainder is the number of odd days.

Months	Odd Days
January 3	3
February (Ordinary / Leap)	0 / 1
March	3
April	2
May	3

June	2
July	3
August	3
September	2
October	3
November	2
December	3

**Odd Days for Centuries:**

Centuries	Odd Days
100	5
200	3
300	1
400	0

**With reference Date:**

In these types of Questions, the reference date was given and we find the day based on the given reference. The odd days must be counted from the reference day.

**Example:**

Reference Date: January 1, 2020, was a Wednesday.

Find the day of the week for: January 1, 2023.

Now the day is counted from the reference date.

Total odd days = 2 (2020) + 1 (2021) + 1 (2022) = 4 odd days.

Starting from Wednesday (January 1, 2020), we count forward 4 days.

Wednesday → Thursday → Friday → Saturday → Sunday.

So, January 1, 2023, will be a Sunday.

**Without reference date:**

In this approach, there is no specific reference date. Instead, the calculation begins from zero, with Sunday considered as day 0. Days are numbered sequentially starting from Sunday.

**Example:**

Find the day of 2014 Jan 26.

Total odd days = 0 (2000) + 16 (2001 - 2013) + 26

= 42

The 42 can be divided by 7 without an odd days.

Odd days = 0.

Answer: Sunday

**Repeating years:**

In these types of questions, candidates need to find the year or month which will have the same as the previous years = calendar of current year

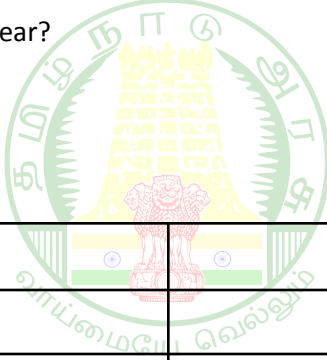
**Example:**

The calendar of 2024 will repeat after which year?

2024 is a leap year.

So 2024 + 28 = 2052

The 2052 calendar is the same as 2024.



Year	Repetition after years
Leap Year	28
Leap year + 1	6
Leap year + 2	11
Leap year + 3	11

**Variety of Questions:**

1. Today is Monday. After 64 days, it will be:

- a. Tuesday

- b. Wednesday
- c. Thursday
- d. Friday

**Answer:** a. Tuesday

**Explanation:**

64 days / 7 = 63 + 1

1 Odd day

Monday + 1 = Tuesday

2. It was Sunday on Jan 1, 2006. What was the day of the week Jan 2, 2010?

- a. Monday
- b. Wednesday
- c. Saturday
- d. Friday

**Answer:** c. Saturday

**Explanation:**

On 1st Jan, 2006 it was Sunday.

Number of odd days from the year 2006 to the year Jan 2, 2010

= (1 + 1 + 2 + 2)

= 6 days.

2nd Jan 2010 = Sunday + 6 days = Saturday

Thus, on 2nd Jan, 2010 it is Saturday.



3. Which will be the last day of the century?

- a. Monday
- b. Saturday
- c. Tuesday
- d. Thursday

**Answer:** a. Monday

**Explanation:**

100 years have 5 odd days.

The last day of the first century is Friday.

The last day of the second century is Wednesday.

The last day of the third century is Monday.

The last day of the fourth century is Sunday.

4. Which of the following is a non leap year?

- a. 2800
- b. 2200
- c. 2400

d. 2000

**Answer: b. 2200**

**Explanation:**

Century years which will be divided 400 is a leap year.

2200 cannot be divided by 400. So it is a non leap year.

5. On what dates of April, 2001 did Thursday fall?

- a. 5th, 12th, 17th, 24th
- b. 5th, 11th, 18th, 26th
- c. 5th, 12th, 19th, 26th
- d. 5th, 11th, 19th, 25th

**Answer: c. 5th, 12th, 19th, 26th**

**Explanation:**

We shall find the day on 1st April, 2001.

1st April, 2001 = (2000 years + Period from 1.1.2001 to 1.4.2001)

Odd days in 1600 years = 0

Odd days in 400 years = 0

Jan. Feb. March April

$(31 + 28 + 31 + 1) = 91$  days. 0 odd days.

Total number of odd days =  $(0 + 0 + 0) = 0$

On 1st April, 2001 it was Sunday.

So 5th April 2001 is Thursday

In April, 2001 Thursday falls on 5th, 12th, 19th, 26th.

6. On 8th Feb, 2005 it was Tuesday. What was the day of the week on 6th Feb, 2004?

- a. Wednesday
- b. Thursday
- c. Friday
- d. Saturday

**Answer: c. Friday**

**Explanation:**

The year 2004 is a leap year. It has 2 odd days.

The day on 8th Feb, 2004 is 4 days before the day on 6th Feb, 2005.

Hence, this day is Friday.

7. The calendar for the year 2009 will be the same for the year:

- a. 2012
- b. 2015
- c. 2018
- d. 2031



**Answer: b. 2015**

**Explanation:**

Same Calendar: Leap year + 1 year = add 6

2008 is a leap year. + 1 year = 2009

Same Calendar = 2009 + 6 = 2015.

8. If on 15 August 2003, it was Friday, then what day would it be on 15 August 2010?

- a. Sunday
- b. Saturday
- c. Friday
- d. Wednesday

**Answer: a. Sunday**

**Explanation:**

Similarly, 15 August 2005 → Sunday + 1 = Monday

15 August 2006 → Monday + 1 = Tuesday

15 August 2007 → Tuesday + 1 = Wednesday

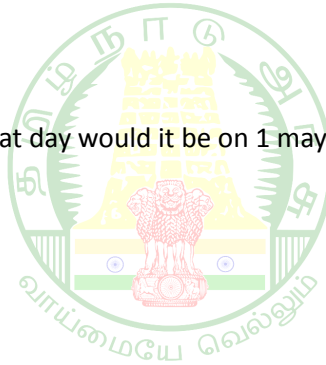
15 August 2008 → Wednesday + 2 = Friday

15 August 2009 → Friday + 1 = Saturday

15 August 2010 → Saturday + 1 = Sunday

9. If on 15 March 2005, it was Friday, then what day would it be on 1 May 2005?

- a. Wednesday
- b. Friday
- c. Monday
- d. Tuesday



**Answer: a. Wednesday**

**Explanation:**

The number of days from 15 March 2005 to 1 May 2005 = 16 + 31 = 47

Divide 47 by 7 = 47/7 = 6 (Quotient), and 5 (Remainder)

Total number of odd days = 5

So, on 1 May 2005, it will be Friday + 5 = Wednesday.

10. What was the day of 1st Jan 2001?

- a. Sunday
- b. Monday
- c. Tuesday
- d. Thursday

**Answer: b. Monday**

**Explanation:**

No of odd days up to Dec 31 2000 = 0

The next day is 1st Jan. So the odd day will be one.

1st Jan of 2001 is Monday.



11. During the leap year which month has more than 2 odd days?

- a. February
- b. August
- c. November
- d. June

**Answer: b. August**

**Explanation:**

August has 31 days. So it's odd day in all the years is 3.

12. While a normal year, which month does not have any odd days?

- a. December
- b. May
- c. February
- d. October

**Answer: c. February**

**Explanation:**

In normal years, February has 28 days.

No of odd days =  $28 / 7 = 4$ . There is no odd days.

13. What day of the week was 29th February 2016?

- a. Saturday
- b. Wednesday
- c. Friday
- d. Monday

**Answer: d. Monday**

**Explanation:**

2016 is a leap year.

No of odd days till 29th feb 2016

= 0(till 2000) + 18(till 2015) + 4 ( till feb 29)

= 22 odd days

29th feb 2016 =  $22/7 = 3$  (Quotient), and 1 (Remainder)

1 odd day

Based on the Odd days condition, 29th feb 2016 is Monday.

14. Raju was born on 29th, Feb 2016 which happened to be a Monday. If he lives to be till 2098, how many birthdays would she celebrate on a Monday?

- a. 2
- b. 3
- c. 1



d. 4

**Answer: a. 2**

**Explanation:**

29th feb 2016 is monday.

Same birthday day =  $4 \times 7 = 28$

$2016 + 28 = 2044$

$2044 + 28 = 2072$

In 2044 and 2072, he will celebrate his birthday on monday.

15. If today is Monday, what will be the 777th day?

- a. Sunday
- b. Monday
- c. Tuesday
- d. Saturday

**Answer: b. Monday**

**Explanation:**

No. of odd days =  $777 / 7 = 111$  (Quotient), and 0 (Remainder)

There is no odd days.

Monday + 0 = Monday

**Practice Problems:**

1. Which year in the future will have the same calendar exactly as 2000?

- a. 2008
- b. 2028
- c. 2012
- d. 2004

2. Which of the following is a leap year?

- a. 74
- b. 102
- c. 96
- d. 118

3. January 1, 2007 was Monday. What day of the week lies on March 1, 2008?

- a. Monday
- b. Saturday
- c. Wednesday
- d. Thursday



4. Which will not be the last day of the century?

- a. Tuesday
- b. Wednesday
- c. Sunday
- d. Friday

5. If 6th March, 2005 is Tuesday, what was the day of the week on 6th March, 2006?

- a. Monday
- b. Wednesday
- c. Friday
- d. Sunday

6. What was the day of the week on 28th May, 2008?

- a. Monday
- b. Sunday
- c. Wednesday
- d. Friday

7. What will be the day of the week 15th August, 2010?

- a. Saturday
- b. Sunday
- c. Monday
- d. Wednesday

8. Today is Sunday. After 42 days, it will be:

- a. Monday
- b. Tuesday
- c. Sunday
- d. Thursday

9. What will be the day on 15th April, 2079?

- a. Sunday
- b. Saturday
- c. Monday
- d. Wednesday

10. Which is not a leap year?

- a. 2000
- b. 2024



- c. 2086  
d. 2048

**Answers:**

Q No	1	2	3	4	5	6	7	8	9	10
Ans	b	c	b	a	b	c	b	c	b	c

