

## Calenders

Basics

- 1 week - 7 days
- 1 year - 52 weeks + 1 extra day
- 52 weeks + 2 extra day (leap year)
- Feb - 28 day, 29 days (leap year)

Day  $\rightarrow$  0 - Sunday

1 - Monday

2 - Tuesday

3 - Wednesday

4 - Thursday

5 - Friday

6 - Saturday

Months

[J F M A M J J A S O N D]

$\Rightarrow$  Note:

- 1600 - 1699  $\rightarrow$  6
- 1700 - 1799  $\rightarrow$  4
- 1800 - 1899  $\rightarrow$  2
- 1900 - 1999  $\rightarrow$  0
- 2000 - 2099  $\rightarrow$  6

① What was the day 26<sup>th</sup> of Jan 1947.

- Sol:
01. last 2 digit of year  $\rightarrow$  47
  02. divide 2 last year by 4  $\rightarrow 47/4 = 11$
  03. Take the date of the given year = 26
  04. Month take the no. of year  $\Rightarrow$  Jan = 0 (Coding System)
  05. year code = 0

Sum all  $\Rightarrow 47 + 11 + 26 + 0 = 84$

0 is mapped to Sunday

② Our Date of Birthday. 08-06-2003

Sol: 01  $\rightarrow$  03    02  $\rightarrow$  0    03  $\rightarrow$  08    04  $\Rightarrow$  Jun  $\rightarrow$  4    05  $\rightarrow$  6

$\Rightarrow 3 + 0 + 08 + 04 + 06 = \frac{21}{7} = 3 \rightarrow$  Sunday

03. 15<sup>th</sup> Aug 1947  
 $\Rightarrow$  01. 47    02.  $47/4 = 11$     03. 15    04. Aug 22  
 $= 47 + 11 + 15 + 2 = 75/7 = 5 \Rightarrow$  Friday

04. What was the day of week 29 Feb 2012

Sol: 01  $\rightarrow$  12    02  $\rightarrow$  3    03. 29    04. 2    05. 6  
 $= 12 + 3 + 29 + 3 + 6 = 53$   
 $53/7 = 7$     24 Tuesday  
 It is leap year (-1)  
 $= 4 - 1 = 3$  (Wednesday)

05. What was the day of week 22 July 1976.

Sol: 01  $\rightarrow$  76    02  $\rightarrow$   $76/4 = 19$     03: 22    04: July - 6    05: 0  
 $\Rightarrow 76 + 19 + 22 + 6 + 0 = 123$   
 $123/7 = 17$     4  $\rightarrow$  Thursday

06. Today is Monday. After 61 days, it will be.

Sol:  $\Rightarrow$  7 days a week  $\Rightarrow$  80 63 day will be Monday.  
 $= 61^{\text{st}}$  day  $\rightarrow$  Saturday

07. If 6<sup>th</sup> March, 2005 is Monday, what was the day of week on 6<sup>th</sup> March 2004?

Sol: 01  $\rightarrow$  04    02  $\rightarrow$  1    03  $\rightarrow$  6    04  $\rightarrow$  3    05  $\rightarrow$  6    24 + 1 + 6 + 3 + 6  
 $= 40$   
 $40/7 = 5$     6<sup>th</sup> - 1 = 5<sup>th</sup> Friday X

$\Rightarrow$  6<sup>th</sup> March 2005  $\rightarrow$  Monday

6<sup>th</sup> March, 2004  $\rightarrow$  -1  $\Rightarrow$  Sunday



Q8. Which of the follow is not a leap year?

(a) 1700 (b) 1800 (c) 1200 (d) 2000

Ans:  $\Rightarrow$  1700 (not divisible by 400)

Q9. What date of May 2002 did Monday fall?

Ans: May 1st 2002

$0 \rightarrow 02 \quad 1 \rightarrow 0 \quad 2 \rightarrow 1 \quad 04 \rightarrow 1 \quad 05 \rightarrow 6 \Rightarrow 02 + 0 + 1 + 1 + 6$   
 $= \frac{10}{7} = 3 \text{ Wednesday}$

May 1st  $\rightarrow$  Wednesday

May 6th  $\Rightarrow$  Monday  $\Rightarrow$  Next Monday  $\Rightarrow 6^{th} + 7 = 13$   
 $13 + 7 = 20$   
 $20 + 7 = 27$

dates are  $\rightarrow 6, 13, 20, 27$  [Monday]

Q10. What date of June 2003 did Friday fall?

Ans:

June 1st  $\Rightarrow$  Sunday  
 $2 \rightarrow \text{Mon} \quad 3 \rightarrow \text{Tue} \quad 4 \rightarrow \text{Wed} \quad 5 \rightarrow \text{Th} \quad 6 \rightarrow \text{Friday}$

6th Friday  $\Rightarrow 6 + 7 = 13$   
 $13 + 7 = 20$   
 $20 + 7 = 27$

dates are  $\rightarrow 6, 13, 20, 27$ .

Q11. Today Monday, After 30 days what day it will.

Ans:  $28^{th} \rightarrow$  Monday

$30 \rightarrow$  Wednesday

or  $7 \overline{) 30} (4$   
 $\underline{28}$   
 $2$

Monday  $\rightarrow 1$   
 $\frac{2}{3}$

Wednesday

Q12. Today is Thursday, After 20 days, what day it will.

Ans:  $21^{st} \rightarrow$  Thursday

$20 \rightarrow$  Wednesday

13. Jan 4<sup>th</sup> 2016 falls on Monday, what day of the week Jan 4<sup>th</sup> 2017. Sol.

2016  $\rightarrow$  leap year  $\Rightarrow 2017 + 2 = 3$  Wednesday

14. 1<sup>st</sup> March 2006 is Wednesday, 1<sup>st</sup> March 2010 falls. Sol.

$\Rightarrow 2008 \rightarrow$  leap  $= 4 - 1 = 3$

$3 + 2 = 5$

1<sup>st</sup> March 2010  $\Rightarrow$  Monday.

15. On 8<sup>th</sup> Dec, 2007 Saturday falls. what day of week was it on 8<sup>th</sup> Dec 2006? Sol.

Friday (-1)

16. The Calendar for the year 2007 will be same for the year  
(a) 2014 (b) 2016 (c) 2017 (d) 2018.

Sol. 2018  $\Rightarrow 2018 - 2007 = 11$

leap year  $\rightarrow 8, 12, 16 \rightarrow 3 \Rightarrow 11 - 3 = 8$

$= 8 + 3 \times 2 = 14 \div 7 = 0$

therefore, 2018 will be Same.

17. 8<sup>th</sup> March 2006 is Wednesday, 8<sup>th</sup> March 2005 = ? Sol.

Tuesday