# CALENDER



## **Two Types of years**

- (i) Ordinary year = 365 Days = 52 weeks + 1 day Extra
- (ii) Leap Year = 366 Days = 52 weeks + 2 days Extra
   Distinction (to know) of leap year b An year which is divisible by 4 completely is called Leap Year otherwise called simple year.

But in case of century year. We divide that year by 400, if divided completely will called Leap Year otherwise called Simple Year.

Ex.

Sol.

- Ex. In 1323, 1726, 1186, 1943, 1784, 2012
   Find which is Leap Year and which is Ordinary Year?
- Sol. 1323 Þ Not divisible by 4 hence Þ Ordinary year
  1726 Þ Not divisible by 4 hence Þ Ordinary Year
  1186 Þ Not divisible by 4 hence Þ Ordinary Year
  1943 Þ Not divisible by 4 hence Þ Ordinary Year
  1784 Þ Divisible by 4 hence Þ Leap Year
  2012 Þ divisible by 4 hence
  Þ Leap Year

#### **Century Year Case**

**Ex.** In 1700, 1200, 500, 1900, 2000. 2100. Find which is Leap Year and which is ordinary Year?

## All are century years hence we check these years dividing by 400

1700 ▷ Not divisible by 400 (b)
hence ▷ Ordinary Year
1200 ▷ divisible by 400
hence ▷ Leap Year
500 ▷ Not divisible by 400

hence	
1900 • Not divisible by 400	(c)
hence P Ordinary Year	• •
2000 b divilsible by 400	
hence Leap Yaer	
2100 b Not divisible by 400	
hence b Ordinary year	
<b>Extra Days/Odd days:-</b> Most	
depend on Extra days	
Methods to Find Extra days:-	
(a) Extra days in days	
davs	
$\frac{days}{7}$ = Remaining days are	E.r.
Extra davs	ĿХ,
Find Extra days in 77 days, 12	
days, 67 days, 41 days, 39	
days, 26 days	
$1277 down = \frac{77}{77} = 0.07$	
In 77 days = $\frac{1}{7}$ = 0(Remainder)	
hence 0 is Extra day	
In 12 days = $\frac{12}{7}$ = 5 (Remainder)	
hence 5 is E.D (E,D – Extra	_
Days)	E.x
In 67 days = $\frac{67}{7}$ = 4 (Remainder)	
hence 4 is E.D	
In 41 days = $\frac{41}{7}$ = 6 (Remainder)	
hence 6 is E.D	
Similarly,	
In 39 days Þ 4 E.D	
In 26 days Þ 5 E.D	
Here we found that the Extra days always comes 0 to 6.	
Extra days in months $P$	
Months are of Four types	
(i) $28 \text{ days} = 0 \text{ E.D}$	
(ii) 29 days = 1 E.D	
(iii) 30 days = 2 E.D	

(iv) 31 days = 3 E.D Extra days in Years **b** Odd days in a Ordinary Year = 1 Odd days in a Leap Year = 2Formula = year + no. of Leap Year in these Year =Remainder Where, Leap Year  $=\frac{\text{No. of year}}{4}=(\text{Quotient})$ Find Odd days in 10 years Leap years =  $\frac{10}{4}$  = 2 (Remainder) odd days =  $\frac{\text{year} + 2}{7} =_{\text{Remainder}}$  $=\frac{10+2}{7}=\frac{12}{7}$ = 5 (Remainder) Find odd days in 46, 99, 53, 76, E.x 83 years respectively? ▶ In 46 years No. of Leap Years =  $\frac{46}{4}$  = 11 (Quotient) odd days =  $\frac{46+11}{7} = \frac{57}{7} = 1$ (Remainder) ▶ In 99 years, No. of Leap Years =  $\frac{99}{4}$ = 24 (Quotient) odd days =  $\frac{99+24}{7} = \frac{123}{7}$ = 4 (Remainder) ▶ In 53 year,

No. of Leap Years =  $\frac{53}{4}$  = 13 (Quotient) odd days =  $\frac{53+13}{7} = \frac{66}{7} = 3$ (Remainder) ▶ In 75 years, No. of Leap Years =  $\frac{76}{4}$  = 19 (Quotient) odd days =  $\frac{76+19}{7}$  $=\frac{95}{7}=4$ (Remainder) ▶ In 83 Years No. of Leap Years  $=\frac{83}{4}=20$  (Quotient) odd days =  $\frac{83+20}{7}$  $=\frac{103}{7}=5$  (Remainder) Thus, in 46, 99, 53, 76, 83 Years 1, 4, 3, 4, 5 Extra days Respectively Note: If result of odd days comes more than 7 then we will again divide these days by 7 and Remainder would be 'Odd days' Odd days in 100 years 99 years + 100th year (Ordinary Result) 4 days + 1 day = 5 days Extra Odd days in 200 years In 100 Years = 5 days )×2 )×2 In 200 Years = 10 days But 10 days can never be odd days, hence we will divide it by 7 again and remainder would be odd days  $\frac{10}{7}$  = 3 (Remainder) Odd days in 300 years b 200 Years + 99 Years + 300th year (Ordinary Year) + 1 = 8

But 8 can not be odd days, hence  $\frac{8}{7}$  = 1 odd day Odd days in 400 years **b** 300 Years + 99 Years + 400th year (Leap Year) But 7 can not be odd days, hence =  $\frac{7}{7}$  = 0 odd day Initial 400 Years calendar used in next 400 to 800 years and repeated again and again in every 400 years ▶ As in 400 year E.D = 0 Note:- Every multiple of 400 have odd days = 0Now we can find odd days in any no. of years Ex. Odd days in 1700 Years Þ 1600+100 + 5 = 5 days Ex. Odd days in 2100 Years 2000+100 + 5 = 5 daysEx. Odd days in 1900 years 1600+300 0 + 1 = 1 days Odd days in 1322 years Ex. 1200+100+22 Leap years  $\frac{22}{5}$  = 4 (Quotient) Odd day= $\frac{22+4}{7}$ =5 (Remainder) 10 can not be odd days =  $\frac{10}{7}$ = 3 Remainder Odd days in 1745 years Ex. 1600+100+45

Þ

Þ

Þ

#### **NOW TYPE-I**

To find the day of the week on a particular date when no preference day is given:

When we count no. of odd days on the given particular date. Then we write

Sunda	ay for	Þ	0 odd day			
Mond	ay for	Þ	1 odd day			
Tuesday for		Þ	2 odd days			
Wedn	esday	Þ	3 odd days			
Thurs	sday	Þ	4 odd days			
Frida	y	Þ	5 odd days			
Satur	day	Þ	6 odd days			
Ex.1	What was 14th Jun	s the 6 e, 199	day of week on 93?			
	(a) Tuesda	ay (t	o) Wednesday			
	(c) Mondag	y (c	l) Sunday			
Sol.	(c) Odd da	ays in	1992 years Þ			
	1600 -	+300	+92			
	Ţ	Ţ	Ţ			
	<b>0</b> +	+ 1 +	3 = 4			
	We take 1993rd w	1992 'as ru	years. Because nning than,			
	In 92 yea	ars =	92 years + 23			
	Leap year	r				
	$=\frac{115}{7}=3$	(Rem	ainder)			
	Odd days	in Mo	onths			
	Jan Feb M	larch	April May			
	$\begin{array}{c} \downarrow \\ 3 \end{array}$	↓ 3	$\begin{array}{c} \downarrow \\ 2 \\ 3 \\ = 11 \end{array}$			
	1993rd was a ordinary year. Hence its February would be					
	Odd down	in do	vo b			
	In June 1	III ua	ys p			
In June 14 days completed						
	15  days can not be odd days					
	13 days can not be out days,					
	then = $\frac{15}{7}$ = 1					
	On this June 199 day Extra	parti 3 we Þ	cular date 14 count only one			
	For 1 day	Extra	a Þ <b>Monday</b>			
Ex.2	What was	s the	day of week on			
13th April 1723?						
	(a) Monda	ay	(b) Tuesday			
(c) Wednesday (d) Thursday						

**Sol.** Write completed years, months days till 13th April 1723. And find odd days in these days

YearYearYearMonth (of 1723)days of April $\downarrow$  $\downarrow$  $\downarrow$  $\downarrow$ 160010022Jan = 31 = 313 $\downarrow$  $\downarrow$  $\downarrow$ Feb = 28 = 0 $\downarrow$ 056March = 31 = 36

In 22 Year Leap Year =  $\frac{22}{4}$ 

= 5 (Quotient)

Then odd days

 $=\frac{22+5}{7}=\frac{27}{7}$ 

= 6 (Remainder)

Total odd days

= 0 + 5 + 6 + 3 + 0 + 3 + 6 = 23 23 days can never be odd days, so we divide 23 by 7 and

remainder would be odd days?

 $\frac{23 \ days}{7} = 2_{(\text{Remainder})}$ 

For 2 odd days **b** Tuesday

#### TYPE - II

When the day of week is asked on a particular date. And reference day is given

**Ex.3** If the third day of month is Monday. Which of the following will be the 29th day of week?

(a)	Friday	(b)	) Saturday
(c)	Sunday	(d)	) Monday

(c) Sunday (d) Mor **Sol.** (b) 3rd = MondayThe,  $3^{rd} + 7 = 10^{th} P$  Monday

 $10^{\text{th}} + 7 = 17^{\text{th}} \text{ } \text{P}$  Monday  $17^{\text{th}} + 7 = 24^{\text{th}} \text{ Monday}$  $24^{\text{th}} + 5 = 29 \text{ } \text{th}$ 

-

Monday + 5 = **Saturday** 

- Ex.4 If the 26<sup>th</sup> day of month is Friday. Which of the folowing will be the 5<sup>th</sup> day of week?
  26th 7 = 19 7 = 12 7 = 5th If Friday on 26<sup>th</sup> day, then Also Friday on 5<sup>th</sup> day
- Ex.5 23rd March of a general year was Tuesday. Then what was the day of the week on 17 July

of this year? (a) Friday (b) Sunday (c) Saturday (d) Thursday Sol. (d) 23rd March **b** Tuesday Left days in March = 31 - 23 = 8April = 30 May = 31 June = 30 Till 17th July = 17Total = 116 Odd days in 116 =  $\frac{116}{7}$  = 4 (Remainder) ▶ Add these odd days in the day of 23rd March Tuesday + 4 = Saturday Ex.6 9th June of a Leap Year was on Thursday. Then what was the day of week on 17 February. (a) Wednesday (b) Monday (c) Thursday (d) Tuesday Sol. (a) Left days in Feb ▶ 29 - 17 = 12 (Because It is a leap year) March Þ 31 30 April Þ May Þ 31 June 9 Þ Total ▶ 113 Days Odd days in 113 days =  $\frac{113}{7}$ = 1 (Remainder) Because the day of June is given and day of February is asked. Hence we go back no. of odd days. 9th June 

Thursday - 1 = Wednesday Note: (i) First day and the last day of Every General year are same (ii) Last day of a Leap Year precedes one day to the first day of that year In G.Y. In L.Y. 1 Jan Þ Monday Then.

31 December♭ Monday in leap year 1 Jan ♭ Monday Then,

- 31 Dec. Tuesday
- 1 Jan of next
- year 
   Tuesday 1 Jan of next
- year♭ Wednesday

## Result

- 1. If date is same, month is same, and we cross a G.Y (28th February). Then we forward 1 day.
- 2. If date is same, month is same and we cross a L.Y (29th February). Then we forward 2 days.
- **Ex.7.** If 15th of February 1789 is Friday what will be the day of 15th of February 1790?
  - (a) Monday
  - (b) Saturday
    - (c) Tuesday
  - (d) Wednesday
- **Sol**. (b) 15th Feb, 1789 Friday 15th Feb, 1790 P ?
  - date same = 15
  - Month same **b** February
- We cross
  - Þ G. Y. (28th Feb. of 1789)
  - Hence we forward 1 day

Friday + 1 Þ Saturday

- Ex.8 The Republic day in 1996 was celebrated on Wednesday. On what day was it celebrated in the year 1997?
  - (a) Thursday (b) Friday
  - (c) Saturday (d) Sunday
- Sol. (b) date same Þ 26 Month same Þ January
- We Cross

Ь

- L.Y. (29th Feb of 1996) Hence we forward 2 days Wednesday + 2 days Þ Friday
- **Note: (i)** Next year calendar after any Leap Year can be used after 6 year:
- (ii) 2nd and 3rd year calendar after any leap year can be used after 11 year.
  - 1960→Leap Year

next year

1961 Calendar \_\_\_\_\_ 1967

1960 2nd Year after 1960 1962 +11 1960 3rd Year after 1960 3rd Year after 1960 1963 +11 1974

## For Example

**Ex.9** Calendar of 1991 could be used again? (a)1990 (b) 1992 (c)1997 (d) 2002

Sol. (d) 1988 3rd year after 1988 1991 +11= **2002** 

- **Ex.10.** Calendar of 1985 could be used again? (a) 1990 (b) 1991
  - (c) 1996 (d) 1992
- Sol. (b) 1984
  - ) next year
  - 1985 +6 = 1991
- □ Table for birthday, anniversary, Republic, Independence celebrated on same day Þ

	Leap Year	(L.Y.+1) yr	(L.Y.+2) yr	(L.Y.+3) yr
Till 28 <sup>th</sup> Feb.	add 5 year	add 6 year	add 6 year	add 11 year
After 28 <sup>th</sup> Feb.	add 6 year	add 6 year	add 11 year	add 5 year

Ex.11. Rohit birth day was on 16 January 1991 on Monday. When would he celebrated his birth day again on Monday (a) 1997 (b) 1999 (c) 2001 (d) 2002 Sol. (d) 1988 is a Leap Year 1991 = (1988 + 3) Year in Hence according to table add 11 year in 1991 for his next birth day 1991 + 11 = 2002Ex.12. Independence day in 1984 was celebrated on Tuesday. In which year was it celebrated on same day? (a) 1990 (b) 1991 (c) 1992 (d) 1993

Sol. (a) 1984 is a leap year
Hence according to table add
6 year in 1984 for same day
on Independence day
b 1984 + 6 = 1990

Ex.13. How many Leap years in 400 year? or How much times 29 Feb comes in 400 year? (a) 97 (b) 99 (c) 100 (d) 102

Sol. (a) From 1 to 100 years Leap

Only Þ Monday, Wednesday, Friday, Sunday Because In 100 year odd days = 5 (Friday) In 200 year odd days = 3 (Wednesday) In 300 year odd days = 1 (Monday)

- In 400 year odd days = 0 (Sunday) Months of a L.Y which have same
- day on 1st day.
  - Jan, October
  - ▶ Feb, March, Nov.
  - April, July
  - ▶ Sep, Dec.

- What was the day of week on 19th June 1440?
   (a) Thursday (b) Wednesday
   (c) Friday (d) Saturday
- 2. What was the day of week on 2nd October 1869?(a) Friday(b) Saturday
  - (c) Sunday (d) Monday
- What was the day of week on 26th November 2008?
  (a) Tuesday (b) Monday
  - (c) Thursday (d) Wednesday
- On what dates of May 1993 did Sunday fall?
  - (a) 1, 8, 15, 22, 29
  - (b) 2, 9, 16, 23, 30
  - (c) 3, 10, 17, 24, 31
  - (d) 4, 11, 18, 25
- 5. On what dates of March, 2013 did Wednesday fall?(a) 6, 13, 20, 27
  - (b) 5, 12, 19, 26
  - (c) 4, 11, 18, 25
  - (d) 7, 14, 21, 28
- 6. If the 3rd day of a month is Tuesday, which of the following will be the 6th day from 23rd of that month?(a) Sunday (b) Saturday
  - (c) Thursday (d) Friday
- 7. If the 27th day of a month is Friday, which of the following will be the 4th day of that month?

(a) Sunday (b) Saturday (c) Wednesday (d) Friday

8. 1.11.93 is First Monday. Which is the 4th Friday of November 1993?

(a) 26-11-93 (b) 24-11-93 (c) 25-11-93 (d) 27-11-93

- 9. If the 6th day of Month is three days earlier then Saturday, what day will it be on 21st day of the month
  - (a) Tuesday (b) Wednesday
  - (c) Monday (d) Thursday
- 10. If Friday fall on 15th sep 1992, what will be the day of 26 Dec 1992?(a) Tuesday (b) Monday
  - (a) These days (b) Monday

(c) Thursday (d) Wednesday

11. If Friday fall on 26 January,

1904, What will be the day of 9 June 1904? (a) Friday (b) Saturday (d) Monday (c) Sunday 12. If Tuesday fall on 19 July 2019, what will be the day of 16 Feb, 2019? (a) Tuesday (b) Wednesday (c) Thursday (d) Monday 13. It was Saturday on 12 December, 1342. What was the day of week on 24 August 1342? (b) Monday (a) Tuesday (c) Sunday (d) Friday 14. If two days before yesterday was Sunday. What day will be 3 days after tomorrow? (a) Saturday (b) Monday (d) Tuesday (c) Sunday 15. If 26 March falls 3 days after tomorrow, that is Tuesday, on what day will the 8th of the month fall? (a) Sunday (b) Friday (c) Tuesday (d) Wednesday 16. Ravi remembers that his mother's birthday is between thirteenth and nineteenth April. His Brother remembers that their mothers birthday is between seventeenth and 23rd April. If both of them remember correctly and on which day is their mothers birth day? (a) 17th (b) 18th (c) 17th or 18th(d) 19th 17. Sunday falls on 4th May, 1886

what will be the day on 4th may, 1887?

(a) Monday (b) Tuesday (c) Thursday (d) Saturday

- (c) Financialy (d) Saturday
  18. Thursday falls on 16th April 1671, what will be the day on 16th April 1675?
  (a) Monday (b) Tuesday
  (c) Wednesday (d) Friday
- 19. Saturday falls on 9th Sep. 2011, what was the day of week on 9th Sep. 2007?
  (a) Sunday (b) Saturday
  (c) Monday (d) Tuesday
- 20. It was Wednesday on 6th March 1949. What was the day of week on 7th March 1952?
  - (a) Sunday (b) Monday

(c) Tuesday (d) Wednesday

- 21. The calendar of 1971 used just after in the year?
  - (a) 1977 (b) 1981
  - (c) 1976 (d) 1982
- 22. In which year the calendar of 2011 will be used again?
  - (a) 2017 (b) 2018
    - (c) 2020 (d) 2022
- 23. Mr. Ravi and Priyanka celebrated their anniversary on Friday, 4 February 2005. When would they celebrate their next anniversary on the same day (a) 2009 (b) 2011 (c) 2015 (d) 2010
- 24. Manoj celebrated his birthday on Saturday, 7th March, 2004. When will he celebrate his next birthday on same day?
  (a) 2009 (b) 2010
  (c) 2011 (d) 2012
- 25. In the year 1966, the republic day was celebrated on Sunday, when will it celebrated again on Sunday

(a) 1972	(b) 1982
----------	----------

(c) 1977	(d) 1971
----------	----------

- 26. In the year 1979 X-mas day was celebrated on Tuesday. When will it be celebrated on same day?
  - (a) 1985 (b) 1984
  - (c) 1990 (d) 1986
- 27. How many Leap Years in 800 years?
  - (a) 200 (b) 202
    - (c) 194 (d) 197
- 28. Sonu's brother Monu 536 days older to him while his sister Tonu 75 weeks older to Monu. If Tonu was born on Wednesday, on which day was Sonu born?
  (a) Saturday (b) Sunday
  (c) Friday (d) Monday
- 29. I shall go Mumbai after 129 days of my brothers birthday. If my brother birth day falls 3 days earlier to Sunday. When shall I go to Mumbai?
  - (a) Saturday (b) Sunday
  - (c) Tuesday (d) Wednesday
- 30. Which of the following is odd?(a) April(b) July(c) November(d) March

### EXERCISE

1.	θ	4. (b)	7. ()	10. (a)	13. (b)	16. (b)	19. ()	22. (d)	25. (a)	28. (b)
2.	(c)	5. (a)	8. (a)	11. ()	14. Ø	17. (a)	20. (b)	23. (b)	26. (b)	29. (b)
3.	(c))	6 <b>. (</b> b)	9 <b>.</b> (d)	12. (b)	15. (b)	18. (b)	21. (d)	24. (b)	27. ( <del>)</del>	30. (a)

SOLUTION

(c) Total number of odd days till 1. 19th June 1440 b 1200 year + 200 year + 39 year + Jan = 3 + 19 days

Feb = 1¥ 6 **↓** 3 March = 3 April = 2 May = 3Leap year in 39 year = = (9) quotient Odd days in 39 year =  $\frac{39+9}{7}$ 

 $=\frac{48}{7}=6$  (Remainder)

+3+2+3+5=26

 $\frac{26}{7}$  = 5 (Remainder)

5 odd days for **b** Friday

2. (b) Total number of odd days till 20oct 1869 Þ

> Year Year Year Month 1600 + 200 + 68 + Jan = 3 + days Feb = 0ſ March = 30 3 April = 2 May = 3 June = 2 July = 3 August = 3 September = 2 Total E.D. = 0 + 3 + 1 + 3 + 0 + 3+2+3+2+3+3+2+2=27But = (27) can never be odd days  $\frac{27}{7}$  = 6 (Remainder) odd days 6 for Þ Saturday (d)  $\frac{26+4+8+6+2}{7}$  Remainder = 4

0 =Saturday, 1 =Sunday

3.

2 = Monday, 4 = Wednesday

(b) For Sunday in May, 1993 we 4. should find the day on 1<sup>st</sup> May,

1993 Total odd days till 1st May 1993 Year Year Year Month davs 1600 + 300 + 92 + Jan = 3 Ŷ Feb = 0♦ March = 30 3 1 1 April = 2 Total odd days = 0 + 1 + 3 + 3 + 0+3+2+1=1313 can never be odd days, Hence again divide by 7 and find Remainder as odd days.  $\frac{13}{7}$  = 6 (odd days) Odd days on Ist May =1993 = 6 6 for = Saturday Than 1 May = Saturday 2 May = Sunday 3 May = Monday First Sunday of this month is on 2nd day. Then on 2nd, 9th, 16th, 23th, 30th all are Sunday. (a) We should find the day on 1st March 2013 for Wednesday in this March, 2013. Total odd days till 1<sup>st</sup> March, 2013 Year + Year + Month + days 2000 + 12 + Jan = 3 Feb = 00 Total odd days = 0 + 1 + 3 + 0 + 1= 5 5 Odd day for = Friday 1st March 2013 = Friday 2nd March 2013 = Saturday 3rd March = Sunday 4th March = Monday 5th March = Tuesday 6th March = Wednesday Then Wednesday in March 2013/ = 6th, 13th, 20th, 27th (b) 3rd day = Tuesday 6.

5.

When was start from 23rd, then the 6th day of the month will be 28th days of the same month 3rd day = Tuesday, Then on 10th, 17th, 24th = Tuesday 24th = Tuesday 25th = Wednesday 26th = Thursday 27th = Friday 28th = Saturday 7. (c) 27th day of Month = Friday Similarly 20th, 13th, 6th also are Friday 6th day = Friday 5th day = Thursday 4th day = Wednesday 8. (a) According to question, 1st November = Monday 2nd November = Tuesday 3rd November = Wednesday 4th November = Thursday 5th November = Friday Similarly 12th, 19th, 26th all are Friday Then 4th Friday = 26th **November** 9. (d) According to question 6th + 3 = 9th = Saturday Then 16th is also Saturday 16th + 5th = 21st daySaturday + 5 = Thursday 10. (a) Total Number of days from 15th September 1992 to 26 December 1992 Days left in September = 15 October = 31November = 30December = 26Total = 15 + 31 + 30 + 26 = 102days Odd days in 102 days =  $\frac{102}{7}$  = 4

(Remainder) ▶ add 4 days in the given day of 15th September because we are going forward Friday + 4 =**Tuesdav** 11. (c) Total number of days from 26th January, 1904 to 9th June 1904 Days left in January February = 29 (because 1904 is L.Y) March = 31April = 30May = 31June = 9Total days = 5 + 29 + 31 + 30 + 3+9 = 135Odd days in 135 days =  $\frac{135}{7}$ = 2 (Remainder) Add 2 days in given day of 26th January 1904, Because we are going forward. Friday + 2 = **Sunday** 12. (b) Total number of days from 16th February, 2019 to 19th July 2019 Days left in February = 12 (because 2019 is a G.Y.) March = 31April = 30May = 31June = 30July = 19Total days = 12 + 31 + 30 + 31 + 3030 + 19 = 153. Odd days in 153 days =  $\frac{153}{7}$  = 6 (Remainder) Subtract 6 days from the given day of 19th July 2019, Because we are going Backward from July to February Tuesday - 6 = Wednesday 13. (b) Total number of days from 24th August 1342 to 12th December 1342 Left days in August = 7September = 30October = 31November = 30December = 12Total days = 7 + 30 + 31 + 30 + 3112 = 110In 110 days total odd days = = 5 (Remainder) Subtract 5 days from the given day of 12th December, 1342,

Because we are going backward from December to August. Saturday - 5 = Monday 14. (c) 2nd day before 3rd day after Yesterday tomorrow Sunday Today Sunday Ans = **Sunday** 15. (b) 3rd day after tomorrow Friday Tuesday given Tomorrow Today 22nd 26th 23th March March March Then 15th and 8th day are also on Friday. 16. (b) According to Ravi his mother's birthday can be on = 14, 15, 16, 17th, 18 but according to his brother birthday can be on = 18th, 19th, 20th, 21st, 22nd Because Both are correct hence 18th is common Birthday is on 18th April 17. (a) According to Rule 4th May, 1886 to 4th May 1987, we forward 1 day. Rule = Date same (4th), Month same (May) and we cross a G.Y. (28th Feb of 1987) then we forward 1 day. Sunday + 1 = Monday 18. (b) 16th April 1671) 2 16th April 1672 16th April 1674 🖌 1 16th April 1675 2 1 Total days = 5 Thursday + 5 = **Tuesday** 19. (c) 9th September 2007 )2 9th September 2008 )1 9th September 2009 9th September 20109th September 2011 21 Total days = 5 We subtruct these 5 days from the given day of 9th September 2011. Because we are going backward from 2011 to 2007. Saturday – 5 = **Monday** 20. (b) 6th March 1949 )1 6th March 1950 )1 6th March 1951 6th March 1952 $\langle 2 \rangle^2$ 7th March 1952 / 1 Total days = 5

Add These five days in the given day of 6th March 1949. Because we are going forward from 1949 to 1952.

- Wednesday + 5 = **Monday** 21. (d) According to Rule L.Y. + 3 = 1968 + 3 = 1971 Add 11 year in 1971 1971 + 11 = **1982**
- 22. (d) According to Rule L.Y. + 3 = 2008 + 3 = 2011 Add 11 year 2011 2011 + 11 = **2022**
- 23. (b) According to chart this date is till 28th February and in year (L.Y. + 1) we add 6 year.
  2005 + 6 = 2011
- 24. (b) According to Rule, this birthday is after 28 February and in a Leap year. We add 6 year according to the chart in 2004 2004 + 6 = 2010
- 25. (a) This Republic day is till 28 February and in a (L.Y. + 2) year. We add 6 year according to chart 1966 + 6 = 1972]
- 26. (b) This X-mas day was after 28th February and in the year (L.Y. + 3) (1976 + 3) = 1979

We add 5 year According to chart 1979 + 5 = **1984** 

- 27. (c) L.Y in 400 year = 97 Then in 800 year = 97 × 2 = **194**
- 28. (a) According to the question Sonu is the youngest and Tonu is the oldest. So Tonu was born before Sonu and Monu. Suppose Sonu was born on = xday Then Monu was born on = x - 536and Tonu was born on
  - = x 536 525 (75 weeks = 525 days)
  - x 1061 = Wednesday (given)
  - Odd days in 1061 days
  - $= 1061 \div 7 = 4$  (remainder)
  - and code of Wednesday = 3
  - x 4 = 3; x = 7 means 0 means Sunday
  - So, Sonu was born on = x = 0= **Sunday**
- 29. (b) 3 days earlier to SundaySunday -3 = Thursday
- Brother's birthday was on = Thursday 129 days I Shall go Mumbai =

E.D. in 129 days =  $\frac{129}{7}$  = 3 days Add These 3 days in brother's day of birth.

Thursday + 3 = **Sunday** 

30. (a) Because the month April is on even place. Others are on odd place.