

CALENDAR - SOLVED EXAMPLES

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Q 1 - What was the day of the week on 15th June, 1776?

A - Sunday

B - Saturday

C - Thursday

D - None of these

Answer - B

Explanation

15th June 1776 = (1775 years + Period from 01.01.1776 to 15.06.1776)

Counting of odd days:

No of odd days in 1600 years = 0

No of odd days in 100 years = 5

75 years = 18 leap years + 57 ordinary years

= $18 \times 2 + 57 \times 1$

= 36 + 57

= 93 odd days

= 13 weeks + 2 odd days = 2 odd days

∴ 1775 years have $(0+5+2) = 7$ odd days = 0 odd days.

Jan to May = $(31+29+31+30+31)$

= 152 days

Add 15 days of June.

= 152 + 15

= 167 days

= 23 weeks + 6 days

= 6 odd days.

∴ Total number of odd days = 0 + 6 = 6 odd days.

Hence 15.06.1776 was Saturday.

Q 2 - January 15, 1997 was a Wednesday. What day of the week was on Jan 5, 2000?

A - Wednesday

B - Thursday

C - Friday

D - Saturday

Answer - A

Explanation

1997, 1998 and 1999 are not leap years.

1998 and 1999 has 2 odd days.

No of days remaining in 1997 = $365 - 15 = 350$

= 50 weeks of 0 odd days.

05.01.2000 = 5 odd days.

Total no of odd days = $2 + 0 + 5 = 7$
7 days from Wednesday is Wednesday.
 \therefore Jan 5, 2000 was also Wednesday.

Q 3 - The calendar for the year 2007 will be the same for the year:

- A - 2018
- B - 2017
- C - 2016
- D - 2014

Answer - A

Explanation

We will count the no of odd days from the year 2007 onwards to get the sum equal to 0 odd days.

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Odd day	1	2	1	1	1	2	1	1	1	2	1

Sum = 14 odd days = 0 odd days
Calendar for the year 2018 will be the same for the year 2007.

Q 4 - Will date-book for the year 2003 serve for the year 2014?

- A - no
- B - yes

Answer - B

Explanation

We must have same day on 1.1.2003 and 1.1.2014.
Along these lines, number of odd days somewhere around 31.12.2002 and 31.12.2013 must be 0. This period has 3 jump years and 8 common years.
Number of odd days = $(3*2+8*1) = 14 = 0$ odd days.
 \therefore Calendar for the year 2003 will serve for the year 2014.

Q 5 - What was the week's day on fifteenth august, 1947?

- A - Rs 1720
- B - Rs 1820
- C - Rs 1920
- D - Rs 1220

Answer - C

Explanation

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fifteenth Aug.1947 =(1946 years +period from 1.1.1947 to 15.8.1947)
Odd days in 1600 years =0
Odd days in 300 years = (5*3) =15 =1946 years = (11 jump years+35 customary years)
= (11*2 +35*1) odd days= 57 days
= (8 weeks +1 day) = 1 odd day

∴ odd days in 1946 years= (0+1+1) =2

Jan + Feb. + March + April + May + June + July + Aug
(31 + 28 +31+ 30 + 31 +30+31+15) = 227 days

227 days = (32 weeks +3 days) = 3 odd days.
Aggregate no. of odd days = (2+3) = 5

Consequently the required day is Friday.
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