GATE

ALL BRANCHES

GENERAL APTITUDE

Quantitative Aptitude

Lecture No: 12

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TOPICS TO BE COVERED

1. Basics of English Calendar
2. Understanding Odd days Concept
3. Repetition of Calendar
4. Brainstorming on Calendars

Q. Choose the alternative which is closely resembles the mirror image of the given combination.

Assignment

MAGAZINE

A. 

B. 

C. 

D. 

Q. Choose the correct mirror image of the given figure from amongst the four alternatives.

A. 

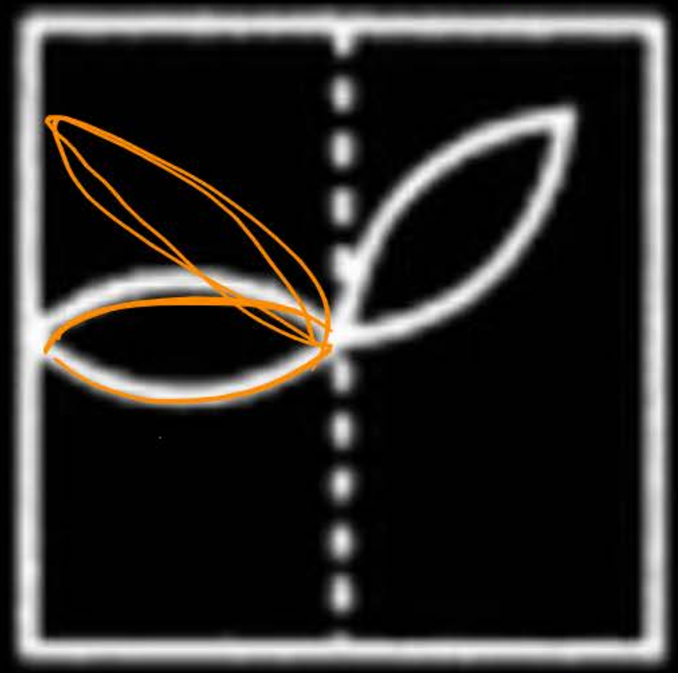
B. 

C. 

D. 

Assignment

Q. Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



SQUARE SHEET (X)

A. 

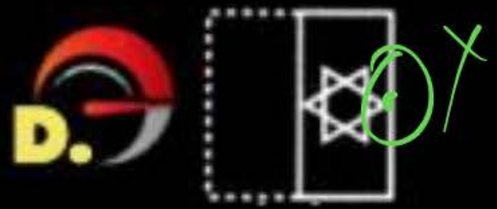
B. 

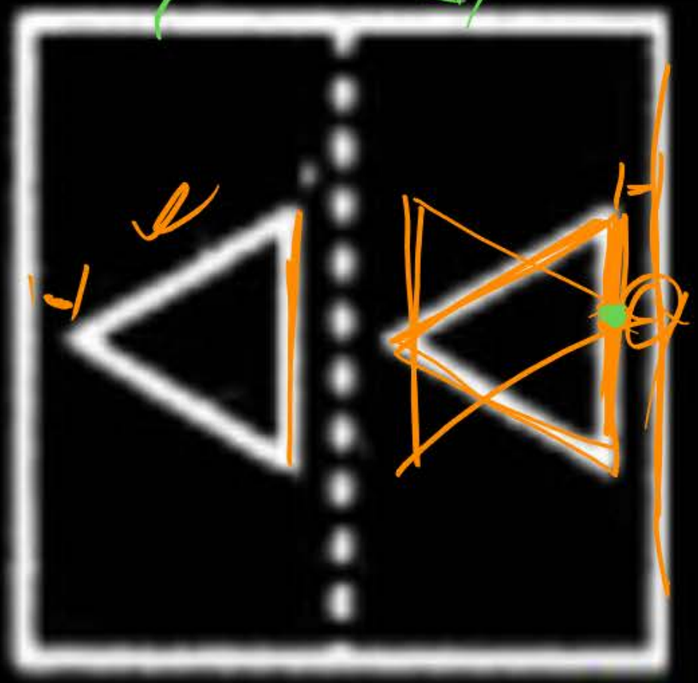
C. 

D. 

Assignment

Q. Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.





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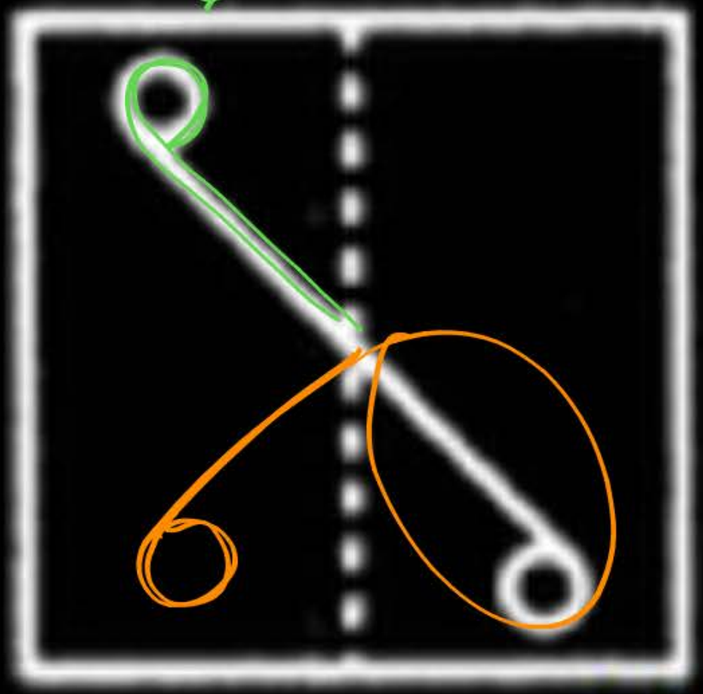
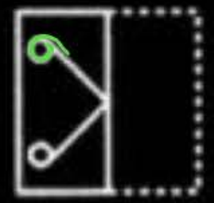
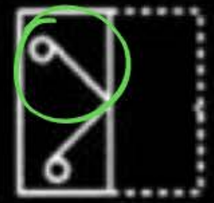
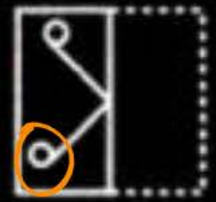


SQUARE SHEET (X)

A. 

B. 

C. 

D. 

Assignment

Q. Choose a figure which would most closely resemble the unfolded form of Figure (Z).


X


Y


Z

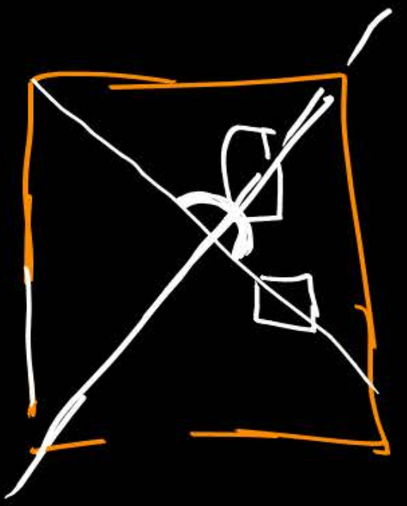
Assignment


A.


B.


C.

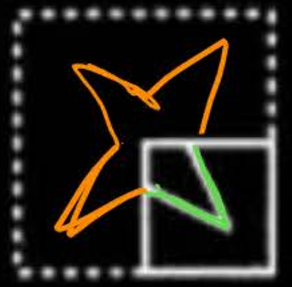

D.



Q. Choose a figure which would most closely resemble the unfolded form of Figure (Z).


X


Y


Z

Assignment

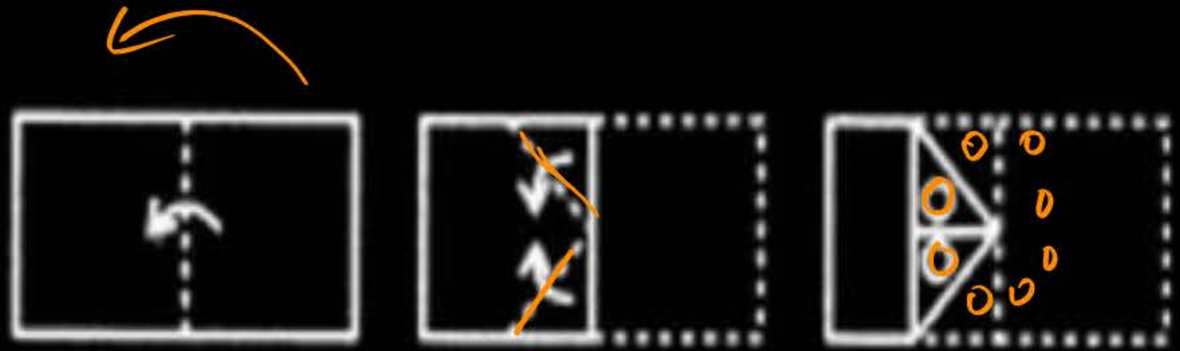

A.


B.

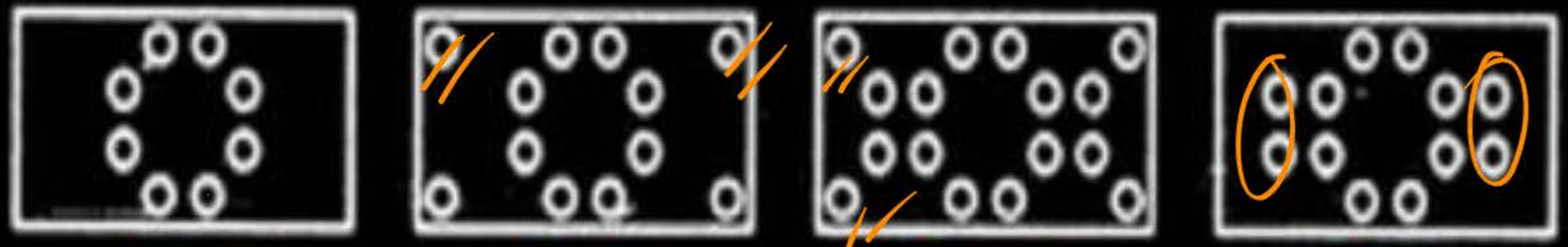

C.


D.

Q. Choose a figure which would most closely resemble the unfolded form of Figure (Z).



Assignment



Calendar

Date → Day ?

Lunar ✗

✓ Monday

✓ SOLAR 01-01-01

Use

Sunday

00-00-00

1600 CE → Common Era

1600 B.C

1800 BCE → Before Common Era

AD

BC

BASIC QUESTIONS:

1. Use of CALENDAR? i.e Day ?

April / June / Sep / Nov

2. How many months in a year consist of 30 days?

exactly

11 months

Only 1

4 months

3. Which is the first day of a week?

Sunday i.e

4. What is the difference between A.D. & B.C.?

→ Before Christ

Holy Year

Anno Domini

CALENDARS

Maximum → 8 yrs

ODD DAYS

10

12th Oct, 2023 ⇒ Thursday +3

22nd Oct, 2023 ⇒ ?

Sunday

7

3

Occurance of Leap Year

400

Manish celebrated his birthday on 29th February,1796.
Do he get his birthday in 4 years?

1996 ⇒ 29th Feb
2000 ⇒ 29th Feb

8 yrs

1800 ✗

29th Feb, 1804

Leap Year & Normal Year

✓If a year is divisible by 4 then it's a leap year else normal. e.g. 1652, 1212, 1496, 1708, etc. are leap years whereas 1714, 1446, 2006 etc. are normal years.

✓If a century is divisible by 400 then it's a leap year else normal. e.g. 1600, 1200, 2000, 800 etc. are leap years whereas 1000, 1500, 2100 etc. are normal years.

04
08
12
16
20
24
28
32
-
96

CALENDARS

ODD DAYS

As today is 12th October, 2023. The day is Thursday.

✓What would be the day on 22nd October, 2023?

10

3

Sunday

Concept of ODD DAYS

$7\overline{)20}$ (2 weeks)
14
6 → odd days

$7\overline{)40}$ (5 weeks)
35
5 odd days

Concept of ODD DAYS

✓ *All those number of days which can't be kept in a group of a week.*

OR

✓ *When given number of days is divided by 7, the remainder is called as odd days.*

Normal Year & Leap Year

52 weeks

N.Y. → 365 days ⇒ 1 odd days

L.Y. → 366 days ⇒ 2 odd days

CENTURY

ODD DAYS

0 - 6

100 years → 5 odd days

100yrs → 5 odd days

L.Y | N.Y

24 | 76

×2 | ×1

48 | 76

6 + 6

12

04
08
12
16
20
24
28

×24

96

1

Leap

1300 900 × 500 100 → 5 odd days 1700

1400 1000 600 (10) × 200 → 3 odd days 1800

1500 1100 700 (15) × 300 → 1 odd day 1900

1600 1200 800 0 × 400 → 0 odd days 2000

G+1 500

Q. What was the week day on 3rd June, 1947?

Tuesday

1946 → 2 + 0 = 2 odd days

1900 → 1

0 - S
1 - M
2 - Tue
3 - Wed
4 - Thu
5 - Fri
6 - Sat

04 × 11 = 44

46 → 1

(31) Jan + 3 | Mar - 3 | 46 → 1
Feb - 0 | June - 3
Mar - 3 | 11 | 35
April - 7

22 → 1

35 → 0

Q. What would be the week day on 14th September, 2025?

2024 ⇒ 2 + 5 = 0 odd days

2000 ⇒ 0

SUNDAY

J-5 M-3
F-0 J-2
M-3 J-3
A-2 A-1
5

24 ⇒ 2

L.Y. N.Y.
6 18
12 18
5 + 4 = 9

S-0

04
×6
24

Q. Guru Nanak was born on 15th April, 1469. What was the week day?

1468 ⇒ 4 + 0 = 4 odd days

1400 ⇒ 3

68 ⇒ 1

Thursday

J - 3

F - 0

M - 3

A - 1

0

17

6

51

2

FACTS

Date of Birth

Day

April 15, 1469: Day of the Week

April 15, 1469 was the 105th day of the year 1469 in the Gregorian calendar. There were 260 days remaining until the end of the year. The day of the week was *Thursday*.

The day of the week for April 15, 1469 under the old Julian calendar was Saturday. Did you notice the difference with the Gregorian calendar?

Thank You!