

MAT(PAPER WITH SOLUTION)

1. As 'Clock' is related to 'Second' in the same way ' Calendar' is related to
 (1) Time (2) Date (3) Month (4) Year

Ans. 2

Sol. As in clock hour → Minute → Second shows the decreasing order so in the same way in calendar

Year → Month → Date will represent the same.

Direction: In Question Nos. 2 and 3, there is certain relation between terms in the left side of the sign :: Similar type of relation is there between the two terms in the right side of the Sign :: . Write the correct option from the given alternatives:

2. Moon : Satellite :: Earth : ?
 (1) Sun (2) Solar system (3) Planet (4) Star

Ans. 3

Sol. Moon is a satellite and earth is planet.

3. 7 : 56 :: 9 : ?
 (1) 81 (2) 90 (3) 99 (4) 108

Ans. 2

Sol. 7 : 56 :: 9 : ?

$$7 : 7 (7 + 1) :: 9 : 9 (9 + 1)$$

Direction: In Question Nos. 4 and 5 except one alternative other alternatives are alike in a certain way. Select the odd alternative which is different from others.

4. (1) Teacher (2) Lecturer (3) Student (4) Professor

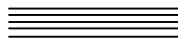
Ans. 3

Sol. Option (1) (2) (4) represent tutors. So odd one will be (3)

5. (1) Square meter (2) Cube root (3) Hectare (4) Acre.

Ans. 2

Sol. Option (1) (3) (4) are units of Area . So odd one will be (2)



6. Find the missing group of number letter in the following series

3F, 6G, 11I, 18L, ?

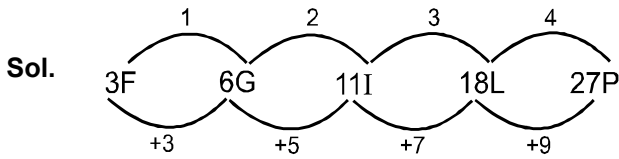
(1) 21 N

(2) 25 P

(3) 27 P

(4) 27 N

Ans. 3



7. In the series 6,4,1,2,2,8,7,4,2,1,5,3,8,6,2,1,3,2,8,6 how many pairs of successive numbers have a difference of 2 ?

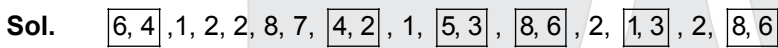
(1) 4

(2) 5

(3) 6

(4) 7

Ans. 3



8. The missing number in the series $\frac{3}{8}, \frac{8}{26}, \frac{?}{242}, \frac{18}{728}$ is.

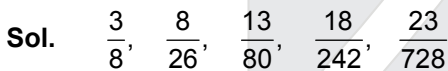
(1) $\frac{11}{80}$

(2) $\frac{13}{80}$

(3) $\frac{11}{81}$

(4) $\frac{15}{81}$

Ans. 2



Numerator = 3, 8, 13, 18, 23 (gap of +5)

Denominator = 8, 26, 80, 242, 728 ($3^n - 1$)

9. How many whole numbers are there from 1 to 100 which have at least one digit as 4 and are divisible by 4 ?

(1) 6

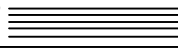
(2) 7

(3) 10

(4) More than 10

Ans. 2

Sol. Numbers 4, 24, 40, 44, 48, 64, 84 follow the condition which is asked in question.



10. Rajesh pointing to his son's photo said to Shakuntala, " his mother is daughter of your mother". How is Shakuntala related to Rajesh?
 (1) Sister (2) Daughter (3) Sister – in – law (4) Aunt.

Ans. 3

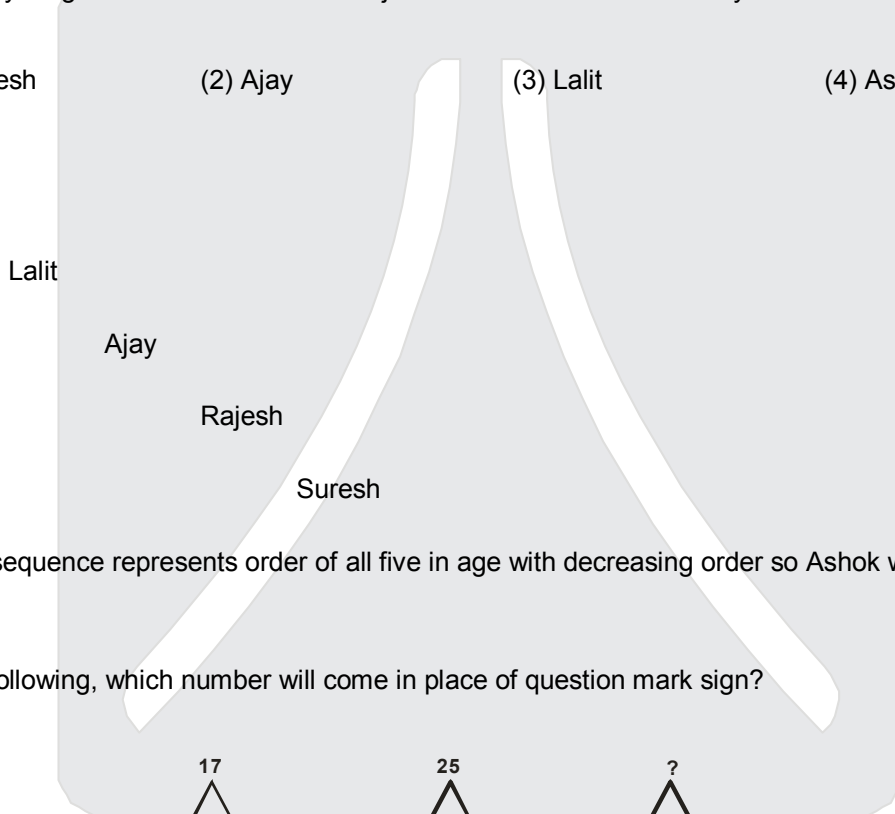
Sol. mother of Rajesh's son is the daughter of Shakuntala's mother so by this statements be can say shakuntala and Rajesh's wife are sister so Shakuntala will be "sister in law" of Rajesh.

11. Suresh, Rajesh, Ashok, Ajay and Lalit are five friends. Lalit is older than only three of his friends. Ajay is younger to Ashok and Lalit. Rajesh is older than Suresh only. Who amongst them is the eldest?

- (1) Suresh (2) Ajay (3) Lalit (4) Ashok

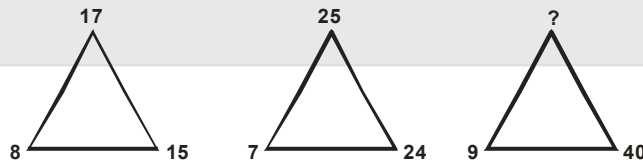
Ans. 4

Sol. Ashok



Given sequence represents order of all five in age with decreasing order so Ashok will be eldest.

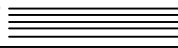
12. In the following, which number will come in place of question mark sign?



- (1) 41 (2) 42 (3) 45 (4) 47

Ans. 1

Sol. The no's on vertex of triangle represents "Pythagorean Triplet" so 9, 40 & 41 will be the triplets



- 13.** In a certain code 'SEDATE' is written as '957315' and 'DEPOSITE' is written as '75289415', then how will TEAD be written in that code?
 (1) 1573 (2) 1537 (3) 7395 (4) 4359

Ans. 2

Sol. SEDATE → 957315

DEPOSITE → 75289415

The given codes show direct coding in which code of S = 9, E = 5 & so on.

So TEAD = 1537

- 14.** In a certain code 'STUDENT' is written as 'RSTEDMS', then how will TEACHER' be written in that code?
 (1) SZBDGDQ (2) SZDDGEQ (3) SDZDGDQ (4) SDBDGDS

Ans. 3

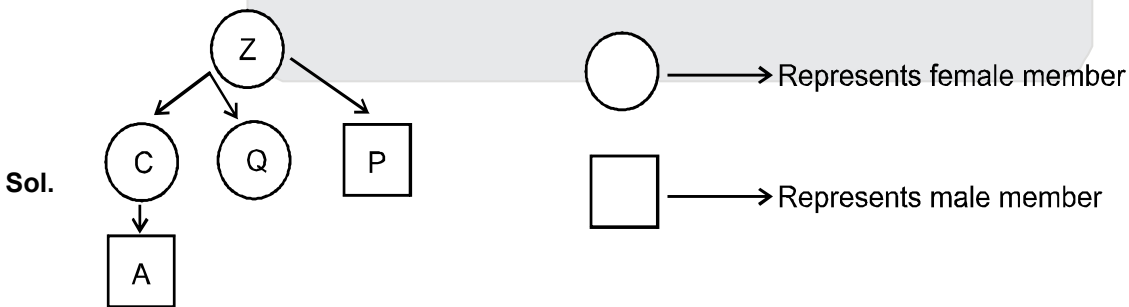
Sol. $\begin{matrix} 19 & 20 & 21 & 4 & 5 & 14 & 20 \\ \text{STUDENT} \end{matrix} \rightarrow \begin{matrix} 18 & 19 & 20 & 5 & 4 & 13 & 19 \\ \text{RSTEDMS} \end{matrix}$

By the codes we can say that first three & last 3 alphabets are decreasing by 1 & middle alphabet is increasing by (1) so by this rule code of teacher will be.

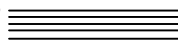
$\begin{matrix} 20 & 5 & 1 & 3 & 8 & 5 & 18 \\ \text{TEACHER} \end{matrix} \rightarrow \begin{matrix} 19 & 4 & 26 & 4 & 7 & 4 & 17 \\ \text{SDZDGDQ} \end{matrix}$

- 15.** A is son of C, C and Q are sisters. Z is mother of Q, If P is son of Z then how is P related to A?
 (1) Grandfather (2) Maternal Uncle (3) Brother (4) Sister

Ans. 2



The Diagram represents the arrangement of members in generation order by diagram we can easily conclude that P is maternal uncle of A.



16. If '+' means '-'; 'x' means '÷'; '÷' means '+' and '-' means 'x', then what is the value of the expression $126 \times 9 - 5 + 32 \div 16$?
- (1) 18 (2) 54 (3) 86 (4) None of these

Ans. 2

Sol. As per the instruction given in question new expression will be

$$126 \div 9 \times 5 - 32 + 16$$

$$\Rightarrow 14 \times 5 - 32 + 16 \quad (\text{by BODMAS rule})$$

$$\Rightarrow 70 - 32 + 16 = 54$$

17. If '<' means '-'; '>' means '+'; '=' means 'x' and '@' means '÷', then what would be the value of $120 > 18 @ 9 < 3$?
- (1) 119 (2) 121 (3) 116 (4) None of these

Ans. 1

Sol. As per the instructions given in question new expression will be

$$120 + 18 \div 9 - 3 \quad (\text{by BODMAS rule})$$

$$120 + 2 - 3 = 119$$

18. Water image of **ACUITY** is
- (1) **VCUITYA** (2) **ACUITY** (3) **VCUITY** (4) **VCUITYA**

Ans. 4

Sol. ACUITY
VCUITYA

19. Mirror image of **WONDER** is.
- (1) **Я ED OИИW** (2) **REDNOW** (3) **Я ED ИOИW** (4) **R ED ИOИW**

Ans. 1

Sol. WONDER | Я ED OИИW

Questions (20 – 23)

Following are the criteria for selection of candidates for Computer Operator in a company:

- i) have passed Graduate with at least 60% marks.
- ii) have passed PG Degree/ Diploma in Computer Application with at least 65% marks.
- iii) have passed Computer skill test with at least 55% marks.
- iv) age is between 24 years to 30 years as on date 01/09/2016.

If the candidate satisfies all conditions but except

- Condition (ii), If at least 70%, marks in Computer skill test, then should be referred to G.M. Administration.
- Condition (iv), If at least two years, experience in IT, then should be referred to G.M., Personnel.

Direction : Give answer to question Nos. **20 to 23** on the basis of the given criteria and select the option as follows:

- If candidate is selected
- If referred to G.M., Administration
- If referred to G.M., Personnel
- If candidate is not selected.

- Sushila passed B.A. with 68% and PG Diploma in Computer Application with 72%. She secured 70% marks in Computer skill test and her date of birth is 8 February, 1991.
- Mohit Secured 58% marks in B.Sc. and PG Diploma in Computer Application. His date of birth is 14 August, 1993. He secured 56% marks in Computer skill test.
- Prakash secured 66% marks in B.C.A. and 61% marks in M.C.A. He obtained 82% marks in Computer skill test. His age is 26 years on May 1, 2016.
- Ajay secured 61% marks in B.Sc. and 65% marks in M.C.A He has five year experience in I.T. and 60% marks in Computer skill test. His date of birth 1 January, 1986.

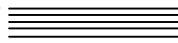
Sol. (20-23)

(I) BA $\rightarrow \geq 60\%$ (II) PGD $\geq 65\%$ (III) C.S.T $\geq 55\%$ (IV) 1/9/16 $\rightarrow \geq 24 \leq 30$

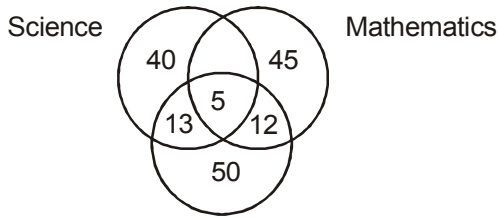
If \neq (II) but $\geq 70\%$ in CST then GM (Admin)

If \neq (IV) but ≥ 2 yrs exp. In IT then GM (Personnel)

- | | | | | | |
|------------|-------|--------|----------|--------|-----|
| 20. | I (✓) | II (✓) | III (✓) | IV (✓) | (1) |
| 21. | I (×) | II (×) | III (✓), | IV (✓) | (4) |
| 22. | I (✓) | II (×) | III (✓) | IV (✓) | (2) |
| 23. | I (✓) | II (✓) | III (✓) | IV (×) | (3) |



24. 500 students were examined in the subjects Science, Mathematics and English in the following Venn diagram, numbers represent the number of students failed in the subjects. The percentage of students who failed at least in two subjects is.



- (1) 7% (2) 8% (3) 27% (4) 35%

Ans. Bonus

Sol. $12 + 13 + 5 = 30$ [Failed in at least 2-subject]

Total = 500

$$\frac{30}{500} \times 100 = 6\%$$

% of failed student in at least 2 subjects = 6%

There is no option in the answers

Hence (Bonus)

25. The present age of father is seven times of his son. After eight years, age of father is three times of his son, then the present age of father is.

- (1) 4 years (2) 21 years (3) 28 years (4) 35 years

Ans. 3

Sol. Let the present ages of father & son be y & x respectively.

Now according to first statement

$$y = 7x \quad \dots\dots\dots (1)$$

Second statement $(y + 8) = 3(x + 8)$

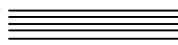
$$\Rightarrow y + 8 = 3x + 24$$

$$y - 3x = 16 \quad \dots\dots\dots (2)$$

From (1) & (2), be set

$$7x - 3x = 16 \quad \Rightarrow \quad x = 4 \text{ years}$$

So present age of father will be $7x = 7 \times 4 = 28$ years.



26. Select the correct option from the following relation in logical sequence of generation

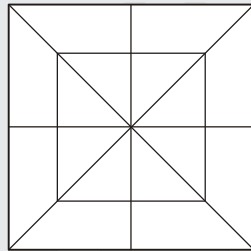
- a. Son
- b. Maternal Grandfather
- c. Father
- d. Grandson

- (1) b,c,a,d (2) c, a, b, d (3) b, c, d, a (4) a, d, b, c.

Ans. 1

Sol. The correct order of given generation will be b, c, a, d

27. How many triangles are there in the following diagram ?



- (1) 28 (2) 30 (3) 32 (4) None of these

Ans. 3

Sol. No. of Triangles = 32

28. How many parallelograms are there in the following figures?

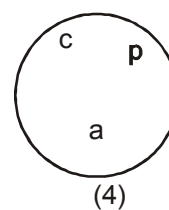
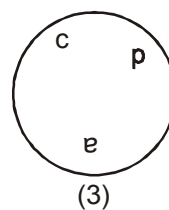
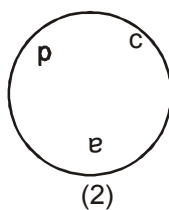
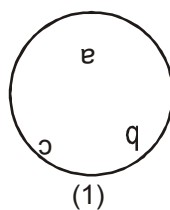
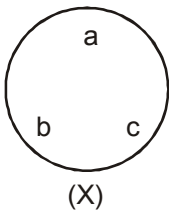


- (1) 20 (2) 24 (3) 28 (4) 30

Ans. 4

Sol. No. of Parallelogram = 30

29. The water image of the given figure (X) from the following four options is



29.

Ans. 2



30. Arrange the following in a logical order:

- a. Milk b. Butter C. Cow D. Curd
 (1) c, a, d, b (2) a, b, d, c (3) c, d, a, b (4) b, c, a, d

Ans. 1

Sol. Cow → Milk → Curd → Butter

c a d b

31. If the first and third letters in the word 'NECESSARY' are interchanged, similarly the fourth and sixth letters and the seventh and ninth letters are exchanged, which of the following letters would be the seventh letter from the right in newly framed word?

- (1) A (2) Y (3) C (4) N

Ans. 4

Sol. NECESSARY → CENESSYRA

32. If 25th date of any month is Tuesday, then which day will be on 2nd date of that month?

- (1) Monday (2) Sunday (3) Wednesday (4) Thursday

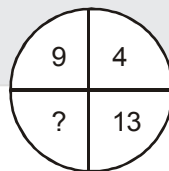
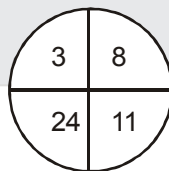
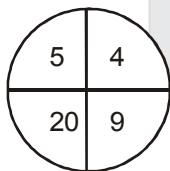
Ans. 2

Sol. 25 → Tuesday

⇒ 4th → Tuesday [∵ 4, 11, 18, 25]

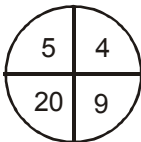
⇒ 2nd → Sunday

33. In the following question, which number will come at the question mark sign?



- (1) 25 (2) 30 (3) 26 (4) 36

Ans. 4



Sol.

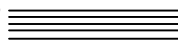
⇒

$5 + 4 = 9$

$5 \times 4 = 20$

Similarly ⇒ $9 + 4 = 13$

$3 \times 4 = 36$



34. Which one of the following words cannot be formed from the letters of the word INDEPENDENT?

- (1) DENT (2) DEER (3) TIND (4) PIND

Ans. 2

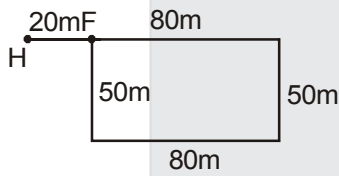
Sol. There is no 'R' in INDEPENDENT

∴ DEER NOT POSSIBLE

35. Suresh walks 100 m towards east from his home, then turning to his right he walks 50 m and turning right he walks 80 m. Again turning to right he walks 50 m. How far is Suresh from his home now?

- (1) 10 m (2) 20 m (3) 30 m (4) 40 m

Ans. 2



Sol.

Final Position is 20 m away from Home

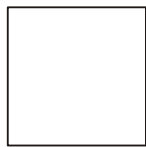
36. Except one option, other options are alike in a certain way. Which is the odd option?

- (1) P R T V X Z (2) C E G I K M (3) Z B D F H J (4) M O R T V X

Ans. 4

Sol. M O R T V X [Rest all alphabets has +2 gap only]

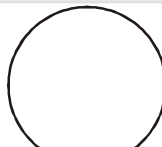
37. In which option there is no similar group ?



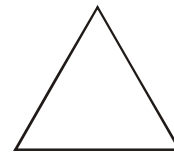
A



B



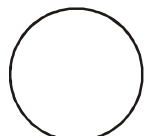
C



D



E



F

- (1) AF, FC, BC

- (2) BC ; ED; AC

- (3) CA; FD; EA

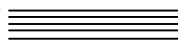
- (4) DC; AE; BF

Ans. 2

Sol.

AF → □ ○	BC → □ ○	CA → ○ □	DC → △ ○
FC → ○ ○	ED → ○ △	FD → ○ △	FD → □ □
BC → □ ○	AC → □ ○	EA → □ □	EA → □ ○
(1)	(2)	(3)	(4)

Similar group.

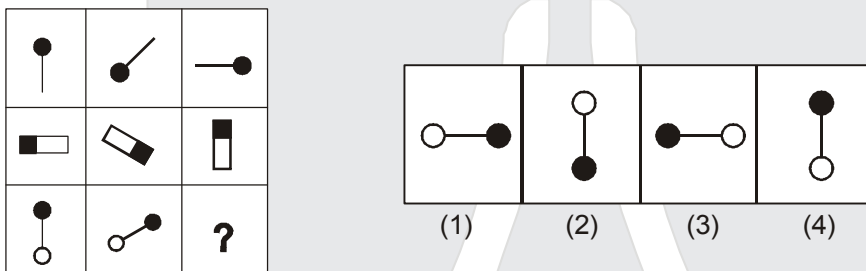


38. If we arrange the following words as per English dictionary, then which word come on second place from the right?
SUE, RAG, FIN, PUT, LOW
(1) PUT (2) LOW (3) SUE (4) RAO

Ans. 4

Sol. According to English Dictionary arrangement will be,
FIN, LOW , PUT, RAG, SUE
So, Second from right is RAG.

39. Which is the alternative that completes the figure matrix?

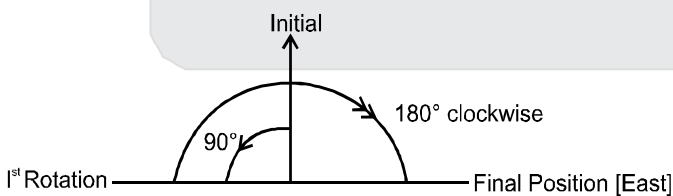


Ans. 3

Sol. Here, Rotation of 135° in anticlockwise direction following in each case.

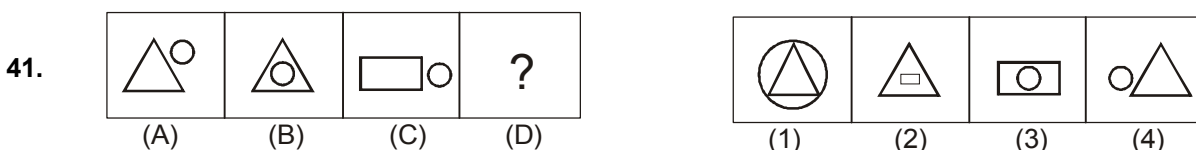
40. A man is facing north. He turns 90° in the anti- clockwise direction and then another 180° in the clockwise direction. Which direction is he facing now?
(1) East (2) South - East (3) West (4) North - East

Ans. 1

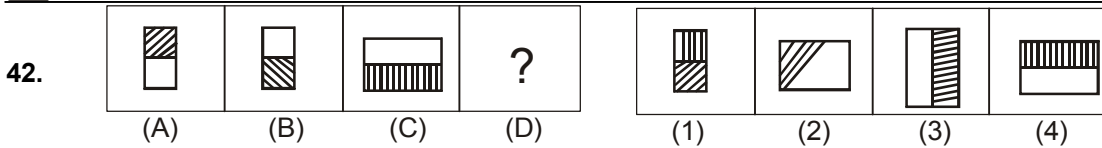


Sol.

Direction : In question Nos. **41** and **42** there are two sets of figures. Figures A, B, C and C are problem – figure and figures 1,2,3 and 4 are answer – figures. There is definite relationship between figure A & B establish a similar relationship between C and D by choosing a figure D from the answer – figure.

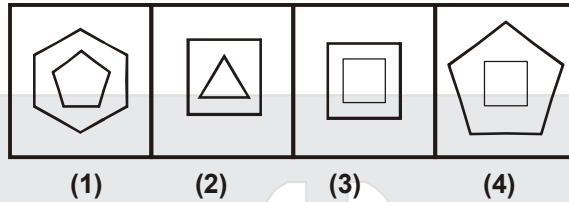


Ans. 3



Ans. 4

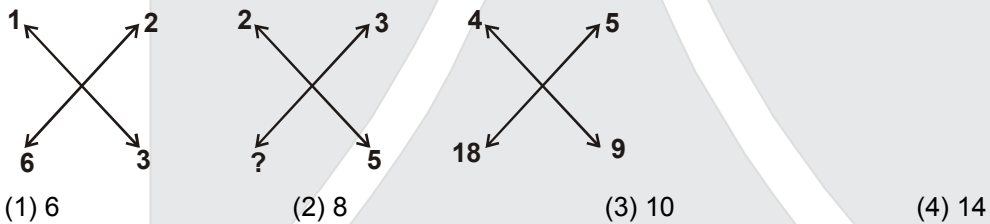
43. In the question four figure are given. One of them does not correlate with the rest of the figures. Find out the odd figure.



Ans. 3

Sol. Inner figure has one less side than the outer one.

44. In the following figure digits follow a certain pattern. Which number will come in place of question mark [?] sign?

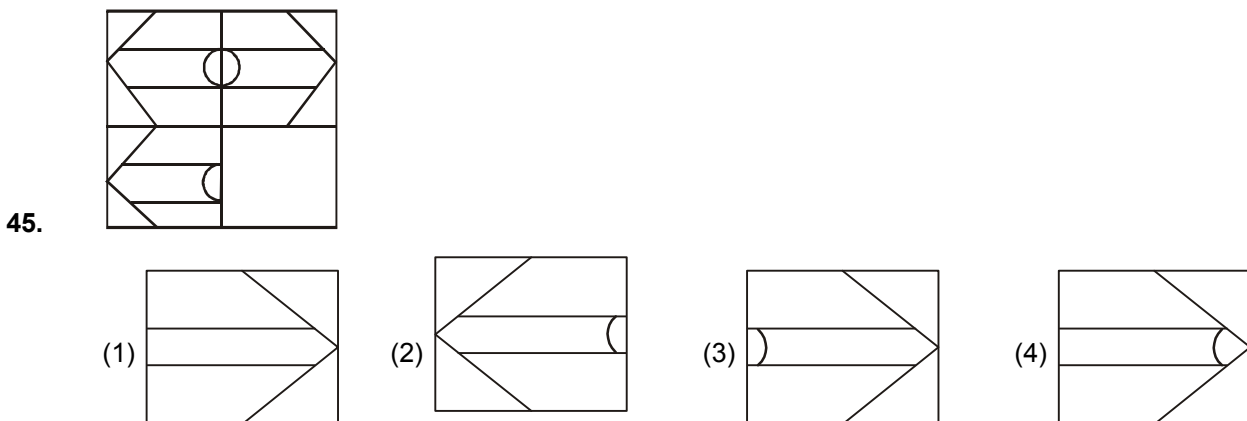


Ans. 3

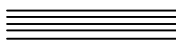
Sol. $1 + 2 = 3$ $2 + 3 = 5$ $4 + 5 = 9$
 $3 \times 2 = 6$ $5 \times 2 = 10$ $9 \times 2 = 18$

Question (45 – 47)

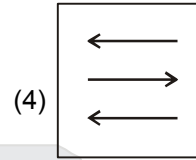
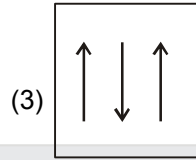
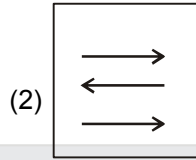
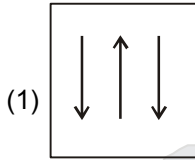
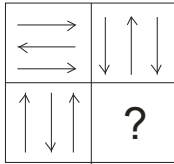
Direction : Which is the alternatives that completes the figure matrix ?



Ans. 3

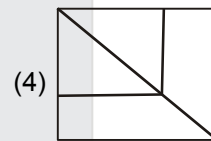
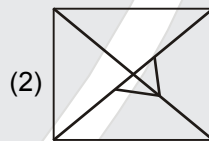
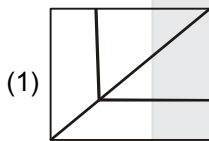
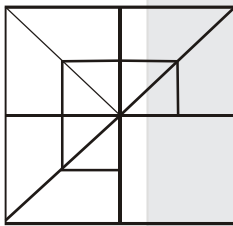


46.



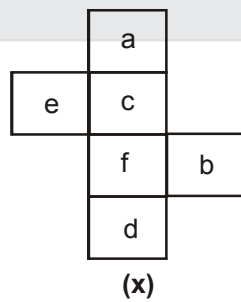
Ans. 4

47.



Ans. 4

48. Choose the option, which is opposite to the letter b on the box, that will be formed when figure (X) is folded;



(1) e

(2) a

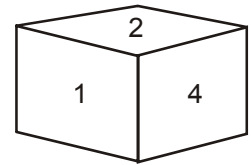
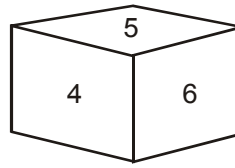
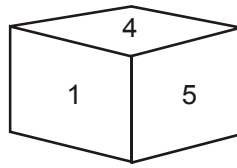
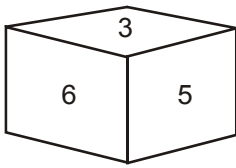
(3) c

(4) d

Ans. 1

Sol. According to the net pattern opposite to 'b' is 'e'.

49. Following are four views of a standard die. Which digit will come opposite to the digit 3?



(1) 1

(2) 2

(3) 4

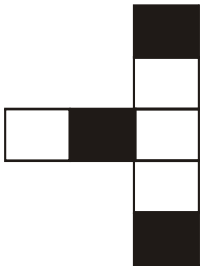
(4) 5

Ans. 3

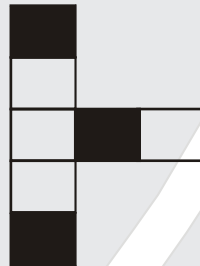
Sol. In a standard dice sum of opposite face = 7

∴ opposite to 3 is 4.

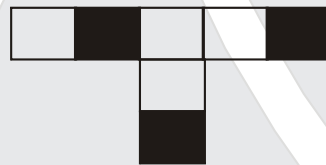
50. Select the option which is odd one out, from four given figures A, B, C and D :



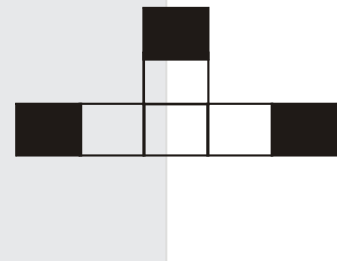
A



B



C



D

(1) A

(2) B

(3) C

(4) D

Ans. 3

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