NATIONAL TALENT SEARCH EXAMINATION
(NTSE-2021) STAGE-1

STATE : ODISHA **PAPER : MAT (SET-A)**

Date : 03-01-2021

Max. Mark : 100 **SOLUTIONS** **Time allowed : 120 mins.**

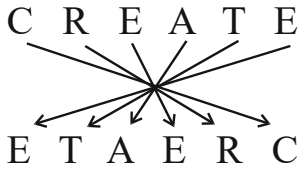
1. In 3 of the options, the second word is related to the first word in the same logical way. Which is the odd one out?

(A) CREATE : ETAERC (B) CATALYST : TSYLATAC

(C) GREAT : EATRG (D) SNAKE : EKANS

Ans. C

Sol.

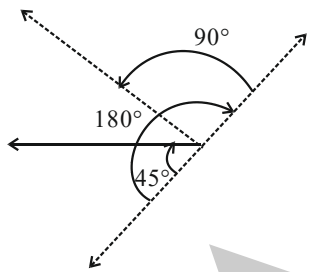


2. I was facing west. I turned 45° in the anti-clockwise direction, then 180° in the clockwise direction. Finally I turned 90° in the anti-clockwise direction. Which direction am I facing now?

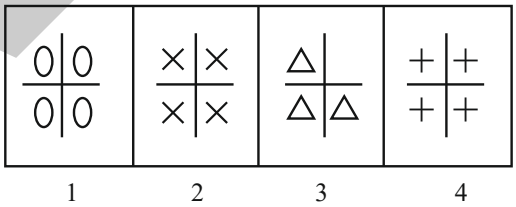
(A) South West (B) South (C) North (D) North West

Ans. D

Sol.



3. Among the given group of 4 images, which set of images can be classified as a group?

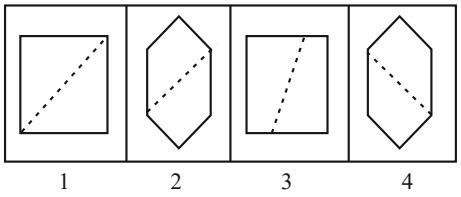


(A) (1, 2, 3) (B) (1, 2, 4) (C) (1, 3, 4) (D) (2, 3, 4)

Ans. B

Sol. By observation

4. Among the given group of 4 images, which set of images can be classified as a group?

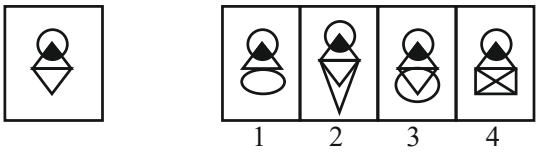


(A) (1, 2, 3) (B) (1, 2, 4) (C) (1, 3, 4) (D) (2, 3, 4)

Ans. B

Sol. By observation.

5. In which of the four images on the right can the pattern given on the left be seen as a part of the image ?



(A) 1 (B) 2 (C) 3 (D) 4

Ans. C

Sol. By observation.

6. Using the letters in the words DICE and BOUNCE, the name of a three dimensional figure can be formed. What it would be?

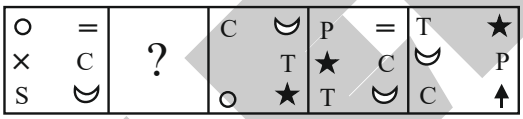
(A) SPHERE (B) CUBOID (C) CYLINDER (D) PYRAMID

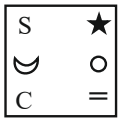
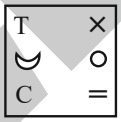
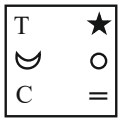
Ans. B

Sol.

DICE BOUNCE
| | | | | |
DIC BOU $\longrightarrow$ CUBOID

7. Which of the following figures will complete the figural series given below?



(A)  (B)  (C)  (D) 

Ans. D

Sol. By observation.

8. Select one of the following four options that will make the second pair analogous to the first pair given as :

Circle: Circumference :: Polygon : ?

(A) Perimeter (B) Volume (C) Area (D) Diagonal

Ans. A

Sol. Circle $\rightarrow$ Circumference

Polygon $\rightarrow$ Perimeter

9. If in a particular coding pattern the word MOBILITY is written as 46293927, then the word EXAMINATION can be written as

(A) 67250623076 (B) 56149512965 (C) 45038401854 (D) 57159413955

Ans. B

Sol. $M \rightarrow 13 \rightarrow 1+3=4$

$O \rightarrow 15 \rightarrow 1+5=6$

$B \rightarrow 2 \rightarrow 2$

$I \rightarrow 9 \rightarrow 9$

$L \rightarrow 12 \rightarrow 1+2=3$

$I \rightarrow 9 \rightarrow 9$

$T \rightarrow 20 \rightarrow 2+0=2$

$Y \rightarrow 25 \rightarrow 2+5=7$

10. What is the missing term in the series given below?

2, 5, 10, 7, 36.

(A) 17 (B) 19 (C) 25 (D) 28

Ans. B

Sol. $2^2+1=5$

$2^3+2=10$

$2^4+3=19$

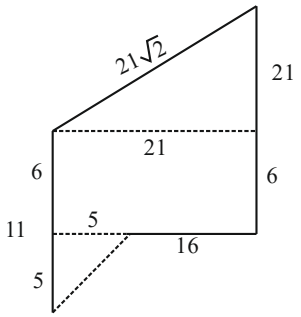
$2^5+4=36$

11. John walked 11 m to the north, then he turns North East and walks $21\sqrt{2}$ m, next he moves 135° clockwise and moves 27m. Finally he turns right and moves 16 m. How far is he from his starting point?

(A) $5\sqrt{2}$ m (B) $6\sqrt{2}$ m (C) $7\sqrt{2}$ m (D) $8\sqrt{2}$ m

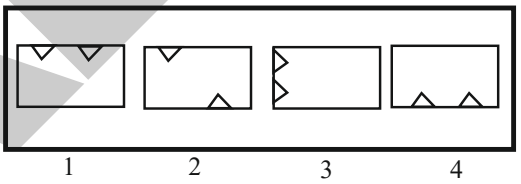
Ans. A

Sol.



$\sqrt{5^2+5^2}=5\sqrt{2}$

12. Among the given group of 4 images, which set of images can be classified as a group?



(A) (1, 2, 3) (B) (1, 2, 4) (C) (1, 3, 4) (D) (2, 3, 4)

Ans. C

Sol. By observation.

13. In a certain code language "BOY IS GOOD" is coded as "QUO CUI HEER", "SITA IS FAIR" is coded as "LAI QUO MEA", "ALL ARE FAIR" is coded as "RUO LEV MEA " "DOG WAS GOOD" is coded as "SI HAI CUI". What is the code for the word "BOY"?

(A) QUO (B) LAI (C) CUI (D) HEER

Ans. D

Sol. IS $\rightarrow$ QUO

GOOD $\rightarrow$ UI

BOY $\rightarrow$ HEER

FAIR $\rightarrow$ MEA

SITA $\rightarrow$ LAI

ALL $\rightarrow$ RUO or LEV

ARE $\rightarrow$ RUO on LEV

14. What is the next term in the sequence given below?

32, 39, 46, 117, 202, 365, 684, ?

(A) 1206 (B) 1251 (C) 1368 (D) 1391

Ans. B

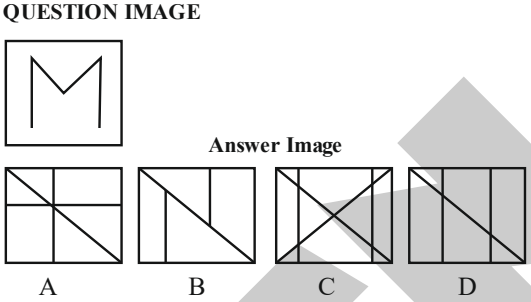
Sol. 32, 39, 46, 117, 202, 365, 684

71 85 163

↓ ↓ ↓

32+39 39+46 46-117

15. Which of the answer images has the question image embedded and hidden inside?

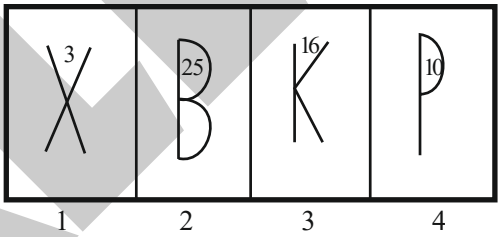


(A) A (B) B (C) C (D) D

Ans. **C**

Sol. By observation.

16. Among the given group of 4 images, which set of images can be classified as a group?



(A) (1, 2, 3) (B) (1, 2, 4) (C) (1, 3, 4) (D) (2, 3, 4)

Ans. **A**

Sol. By observation.

17. Select one of the following four options that will make the second pair analogous to the first pair given as:

CACTUS : CACSUT :: BUZZER : ?

(A) REZZUB (B) UZZBER (C) ZUBREZ (D) UZEZBR

Ans. C

Sol. CAC $\rightarrow$ CAC

TUS $\rightarrow$ SUT

18. What is the next term in the sequence given below?

3, 19, 163, 1459, ?

(A) 13231 (B) 13213 (C) 13321 (D) 13123

Ans. **D**

Sol. 3, 19, 163, 1495, ?

16 144 1296 11664

4^2 12^2 36^2 108^2

X3 X3 X3

11664 + 1459 = 13123

19. What is the missing number in the given series?

2, 4, 7, 12, 1 9 , ? , 43

(A) 28 (B) 30 (C) 32 (D) 29

Ans. B

Sol. 2, 4, 7, 12, 19, ?, 43

2 3 5 7 11

Prime no.

20. In a certain code language "STUDENT ATTENDS CLASS" is coded as "CHIP DIN CHUNK", "ARJUN IS STUDENT" is coded as "DIN SHUNK DINK", "SCHOOLS ARE GOOD" is coded as "JUMP MINK SINK", "TEACHER IS TEACHING" is coded as "DINK MUP CHIMP", What is the code for the word "ARJUN"?

(A) CHUNK (B) DIN (C) DINK (D) SHUNK

Ans. D

Sol.

STUDENT ATTENDS CLASS

CHIP DIN CHUNK

ARJUN IS STUDENT

DIN SHUNK DINK

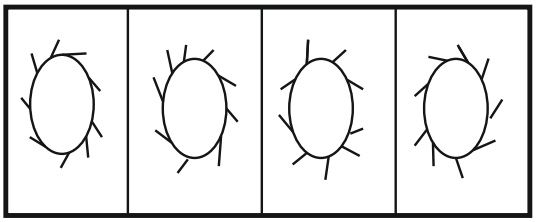
SCHOOL ARE GOOD

JUMP THINK SINK

TEACHER IS TEACHING

DINK MUP CHIMP

21. Among the given group of 4 images, which set of images can be classified as a group?



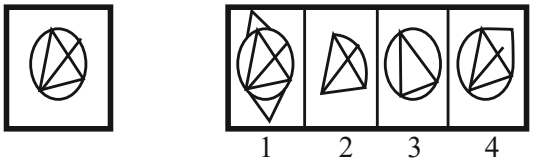
1 2 3 4

(A) (1, 2, 3) (B) (1, 2, 4) (C) (1, 3, 4) (D) (2, 3, 4)

Ans. B

Sol. By observation.

22. In which of the four images on the right can the pattern given on the left be seen as a part of the image?



(A) 1 (B) 2 (C) 3 (D) 4

Ans. **A**

Sol. By observation.

23. Select one of the following four options that will make the second pair analogous to the first pair given as:

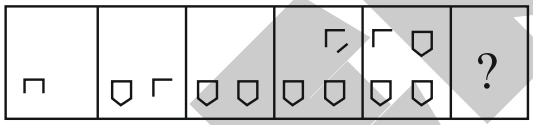
(A) Zebra (B) Mare (C) Pony (D) Stag

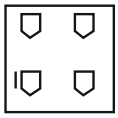
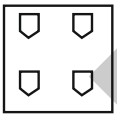
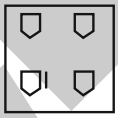
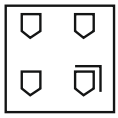
Ans. B

Sol. 1st is MALE of 2nd one

2nd one is female

24. Which of the following figures will complete the series given below?

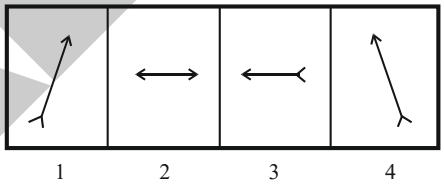


(A)  (B)  (C)  (D) 

Ans. **A**

Sol. By observation.

25. Among the given group of 4 images, which set of images can be classified as a group ?



(A) (1, 2, 3) (B) (1, 2, 4) (C) (1, 3, 4) (D) (2, 3, 4)

Ans. **C**

Sol. By observation.

26. There is a relation between the first number and the symbol written adjacent to it. The corresponding symbol for the number 7 is

3#, 6^, 2@, 7_

(A) & (B) * (C) $ (D) (

Ans. **A**

Sol. By observation.

27. Three of the given four numbers are squares of prime numbers. Choose the odd one out among the following .

529, 121, 169, 441,

(A) 529 (B) 121 (C) 169 (D) 441

Ans. D

Sol. $(23^2 = 529, 11^2 = 121, 13^2 = 169, 21^2 = 441)$

28. In a certain code language "AT A FROG'S LEAP" is coded as "JA Kl MO PE", "TAKE A LEAP AHEAD" is coded as "MO LA Kl SO" and "INSECTS ARE FROG'S DIET" is coded as "RE BO JA NA". What is the code for "AT" in that language?

(A) A (B) PE (C) BO (D) RE

Ans. B

Sol. $AT \rightarrow MO \mid Ki$

$A \rightarrow Ki \mid MO$

$FROG'S \rightarrow JA$

$LEAP \rightarrow PE$

29. In three of the options the 2nd number is related to the 1st number in a similar logical way. Which is the odd one out?

(A) 99 - 9801 (B) 91 - 8281 (C) 81 - 6561 (D) 69 - 4231

Ans. D

Sol. $99^2 = 9801$ $81^2 = 6561$

$91^2 = 8281$ $69^2 \neq 4231$

30. What is the word hidden in the figure?

(A) QWERTY (B) ANTELOPE (C) ANTEATER (D) AUNTIE

Ans. B

Sol. By observation.

31. How many even number(s) In the following sequence of numbers are immediately followed by an odd number and immediately preceded by an even number?

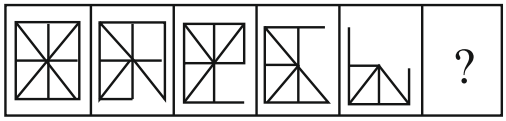
867689327534223552281 19

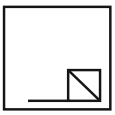
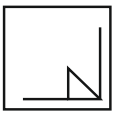
(A) 1 (B) 3 (C) 5 (D) 4

Ans. D

Sol. (8 6 7 / 6 8 9 / 2 2 3 / 2 8 1)

32. Which of the following figures will complete the figural series given below?



(A)  (B)  (C)  (D) 

Ans. A

Sol. By observation.

33. The given options show four time instances. In which of these cases, the hour hand and minute hand will be closest to each other when this time is seen on a clock?

(A) 4:00 (B) 10:00 (C) 6:30 (D) 2:15

Ans. C

Sol. $\theta = \left|\frac{11M}{2} - 30H\right| \Rightarrow \left|\frac{11\times 30}{2} = 180\right|$

$= |165 - 180| = 15$

34. How many numbers are there between 1 to 100, which are not only divisible by 4, but also have 4 as a unit digit?

(A) 5 (B) 10 (C) 20 (D) 21

Ans. A

Sol. (4, 24, 44, 64, 84)

35. If in a certain code language 1 3 4 means GOOD AND TESTY, 4 7 8 means SEE GOOD PICTURES, 7 2 9 means PICTURES ARE FAINT, then which of the following means "SEE" ?

(A) 8 (B) 2 (C) 9 (D) 1

Ans. A

Sol. By observation.

36. Select one of the following four options that will make the second pair analogous to the first pair given as:

258 : 6 : : 155 : ?

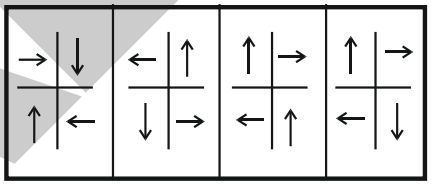
(A) 5 (B) 7 (C) 9 (D) 11

Ans. A

Sol. $6^3 + 6^2 + 6 = 258$

$5^3 + 5^2 + 5 = 155$

37. Among the given group of 4 images, which set of images can be classified as a group?

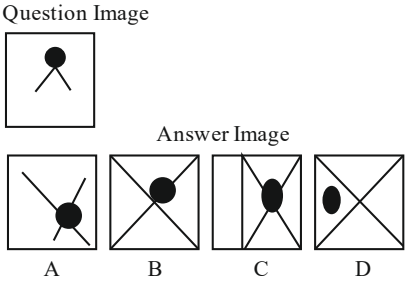


(A) (1, 2, 3) (B) (1, 2, 4) (C) (1, 3, 4) (D) (2, 3, 4)

Ans. B

Sol. By observation.

38. Which of the answer images has the question image embedded and hidden inside?



(A) A (B) B (C) C (D) D

Ans. C

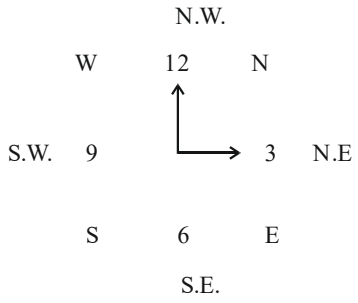
Sol. By observation.

39. An analogue wrist watch is displaying the time as 3:00. If the hour hand points towards north-east direction, then in which direction is the minute hand pointing?

(A) South-west (B) North-west (C) South-east (D) North-east

Ans. B

Sol.

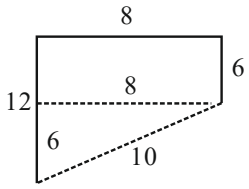


40. Suman runs a distance of 12 km from point A to point B. She then turns right and runs 8 km to reach point C. From point C, she again turns right and runs 6 km to reach point D. How far is she away from the starting point?

(A) 10 km (B) l2 km (C) 13 km (D) 14 km

Ans. A

Sol.



41. Select one of the following four options that will make the second pair analogous to the first pair given as:

DFH : 163664 :: BDF : ?

(A) 151667 (B) 41636 (C) 81838 (D) 182190

Ans. B

Sol. D^2 F^2 H^2 B^2 D^2 F^2

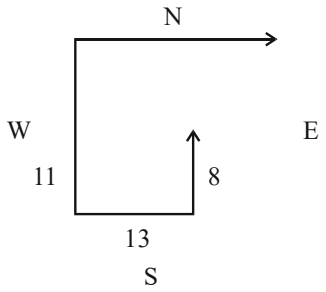
16 36 64 4 16 36

42. A man walked 8 km to the south, then he turns to his right and walks 13 km, next he moves 11 km to his right. Finally he turns to the right and moves 23 km. Which direction is he now from his initial point?

(A) East (B) North (C) South West (D) North East

Ans. D

Sol.



43. In the following sequence of numbers, how many consecutive even numbers have a difference of 2?
4 8 8 4 2 1 6 1 4 4 4 6 6 8 4 6 2 8 4 6 1
(A) 8 (B) 7 (C) 6 (D) 5

Ans. D

Sol. (42 / 46 / 60 / 46 / 461)

44. In the following series, how many pairs of successive numbers have a difference of 2 each ?
6 4 1 2 2 8 7 4 2 1 5 3 8 6 2 1 7 1 4 1 3 2 8 6
(A) 4 (B) 5 (C) 6 (D) 7

Ans. C

Sol. (64/42/86/13/86/53)

45. How many 4s in the following series are immediately preceded by 4 and immediately followed by 5?
5 4 4 4 5 5 4 4 4 5 4 5 4 4 4 5 4 4 5
(A) 5 (B) 3 (C) 7 (D) 4

Ans. D

Sol. (445 / 445 / 445 / 445)

46. 3 numbers of the following 4 numbers are composite numbers and so form a group. Which is the one that does not belong to the group?
(A) 29 (B) 85 (C) 147 (D) 125

Ans. A

Sol.

47. Select one of the following four options that will make the second pair analogous to the first pair given as:
6 : 345 : : 8 : ?
(A) 346 (B) 458 (C) 640 (D) 731

Ans. D

Sol. $6:(6+1)^3+2::8:(8+1)^2+2$

48. In three of the options, the 2nd number is related to the 1st number in a similar logical way. Which is the odd one out?
(A) 263 : 11 (B) 331 : 7 (C) 383 : 13 (D) 551 : 11

Ans. C

Sol. $2+6+3=11$ $5+5+1=1$
$3+3+1=7$ $3+8+3\neq13$

49. Which is the third number to the left of the middle number in the sequence?
12345678908287376325669345186
(A) 3 (B) 2 (C) 4 (D) 5

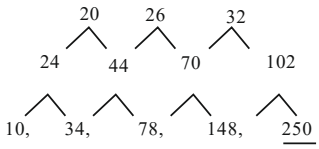
Ans. B

Sol. 1 2 3 4 5 6 7 8 9 0 8 $\overset{\frown}{2\ 8\ 7}$ 3 7 6 3 2 5 6 6 9 3 4 5 1 8 6
↓
Middle

50. What will be the next term of the series
10, 34,78,148, ____ ?
(A) 238 (B) 240 (C) 242 (D) 250

Ans. D

Sol.



51. Select one of the following four options that will make second pair analogous to the first pair given as :
CACTUS : AU :: LOTUS :

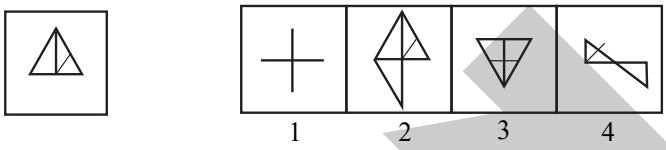
(A) EO (B) AE (C) OU (D) IU

Ans. C

Sol. CACTUS : AU

Logic - Pick the 2nd letter from left and 2nd letter from right.

52. In which of the four images on the right can the pattern given on the left be seen as a part of the image ?



(A) 1 (B) 2 (C) 3 (D) 4

Ans. B

Sol. By observation.

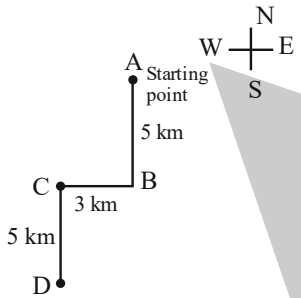
53. A boy walks 5 km toward south, then turns right and walks 3 km. Then he turns left and walks 5 km. In which direction is he from the starting point?

(A) West (B) South (C) North-East (D) South-West

Ans. D

Sol. By observation.

Point D is in Sout-with with respect to A.



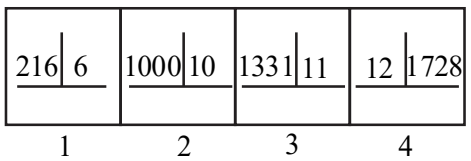
54. Select one of the following four options that will make the second pair analogous to the first pair given as:
Rectangle : 2 :: Pentagon : .....

(A) 4 (B) 5 (C) 7 (D) 10

Ans. B

Sol. No. of diagonal in pentagon = 5

55. Among the given group of 4 images, which set of images can be classified as a group?



(A) (1,2, 3) (B) (1,2. 4) (C) (1,3, 4) (D) (2, 3, 4)

Ans. A

Sol. First number is cube of cube of second in all option expect 4.

56. In the following series of numbers, how many times 1, 3 and 7 have appeared together, 7 being between 1 and 3.

297317377331738571377173906

(A) 3 (B) 4 (C) 5 (D) More than 5

Ans. A

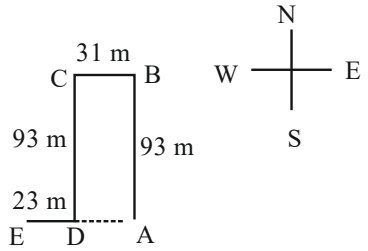
Sol. By observation.

57. A boy walked 931 m to the north, then he turns to his left and walks 31 m . After that, he moves 931 m to his left and finally he turns to the right and moves 23 m. How far is he from the starting point ?

(A) 31 m (B) 54 m (C) 93 m (D) 99 m

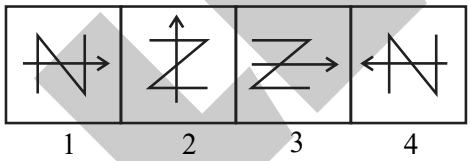
Ans. B

Sol.



AE = 31 + 23 = 54 M

58. Among the given group of 4 images, which set of images can be classified as a group?



(A) (1,2, 3) (B) (1,2, 4) (C) (1,3, 4) (D) (2, 3, 4)

Ans. B

Sol. By observation.

59. How many numbers in the following series are perfect cubes?

1, 2 ,3, 4, 5, 6, 7, 8, 7, 6, 5, 4, 3, 2,1, 2, 3, 4, 5, 6, 7. 8

(A) 1 (B) 2 (C) 3 (D) 4

Ans. D

Sol. **By** observation.

60. Select one of the following four options that will make the second pair analogous to the first pair given as :

JLHNF : PRNTL :: XZVBT : ?

(A) RJXDF (B) DFBHZ (C) DFJPX (D) RTVXZ

Ans. B

Sol. $\underbrace{J\,L\,H\,N\,F}_{+2\ -4\ +6\ -8}$: $\underbrace{P\,R\,N\,T\,L}_{+2\ -4\ +6\ -8}$ :: $\underbrace{X\,Z\,V\,B\,T}_{+2\ -4\ +6\ -8}$: $\underbrace{D\,F\,B\,H\,Z}_{+2\ -4\ +6\ -8}$

61. If the word DIAMOND is coded as VQYMKLV, then the word FEMALE can be coded as

(A) TUMYNU (B) UVNZOV (C) TUMZOU (D) TVNYNV

Ans. A

Sol. D I A M O N D

V Q Y M K L V

Reverse code of letter - 1

Reverse code of D is W and W - 1 is V.

Similarly reverse code of I is R and R – 1 is Q.

62. A list of meaningful words are given in the options. In which case, word formed has at least a pair of consecutive alphabets?

(A) STARE (B) SWING (C) PRANK (D) PLAYS

Ans. A

Sol. A (S T A R E)

63. Some words are given in the options. In which case, the word formed has no pair of consecutive alphabets?

(A) COUNT (B) CRUST (C) PAINS (D) LIGHT

Ans. C

Sol. In PAINS there is no pair of consecutive alphabets.

64. In a certain code language, the word POPULAR is coded as OMMQGUK. In the same way, the word NEOMAN should be coded as

(A) HVWLMC (B) ODNLZM (C) MCLIVH (D) MDMLUM

Ans. C

Sol.

P	O	P	U	L	A	R
–1 ↓	–2 ↓	–3 ↓	–4 ↓	–5 ↓	–6 ↓	–7 ↓
D	M	M	Q	G	U	K

65. If in a certain code language if TOUR is coded as 1357 CLEAR is coded 5678 and SPARE as 90847, then how will the word SCULPTURE be coded ?

(A) 953601347 (B) 567903417 (C) 953016347 (D) 953603741

Ans. GRACE

66. In the following sequence of numbers, how many consecutive even numbers have a difference of 2?

44486448642214422828 1

(A) 9 (B) 8 (C) 7 (D) 6

Ans. D

Sol. By observation

67. Choose the odd one out based on the position of alphabets.

GILP, ACFJ, LNQU, PRUZ

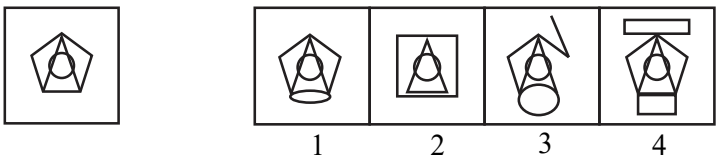
(A) GILP (B) ACFJ (C) LNQU (D) PRUZ

Ans. D

Sol.

G	I	L	P	A	C	F	T	L	N	Q	U
	+2	+3	+4		+2	+3	+4		+2	+3	+4

68. In which of the four images on the right can the pattern given on the left be seen as a part of the image?

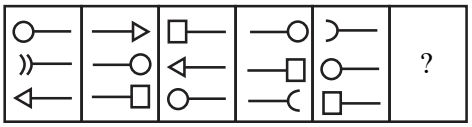


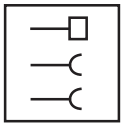
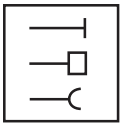
(A) 1 (B) 2 (C) 3 (D) 4

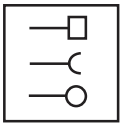
Ans. D

Sol. By observation.

69. Which of the following figures will complete the figural series given below?



(A) 
(B) 
(C) 

(D) 

Ans. C

Sol. By observation.

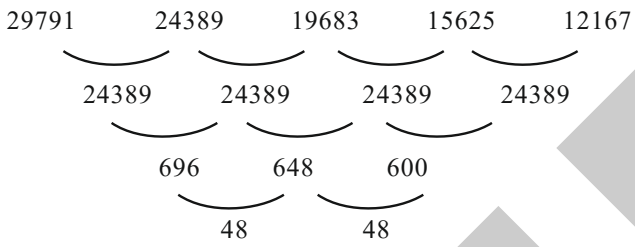
70. What is the missing term in the sequence given below ?

29791,24389, 19683, ?, 12167

(A) 13824 (B) 15625 (C) 17576 (D) 17926

Ans. B

Sol.



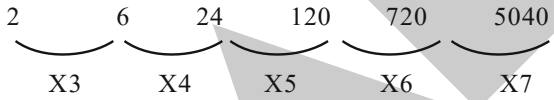
71. What is the next number of the series given below?

2, 6, 24, 120, 720, ?

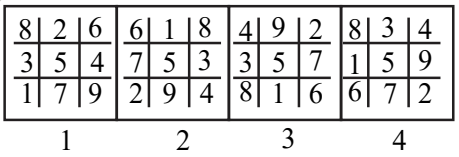
(A) 4420 (B) 4680 (C) 5040 (D) 5640

Ans. C

Sol.



72. Among the given group of 4 images, which set of images can be classified as a group?



(A) (1, 2, 3) (B) (1, 2, 4) (3) (1, 3, 4) (D) (2, 3, 4)

Ans. D

Sol. Sum of each row is 15.

73. In a certain code three statements are written in the following way

(a) "you are good" is coded as "pit dar na"

(b) "good and bad" is coded as "dar tok pa"

(c) "they are bad" is coded as "tim na tok"

To find the particular code of the word "they" which of the following statements can be dispensed with?

(A) Only a (B) b and c (C) a and b and c (D) None of the statements

Ans. D

Sol. By observation.

74. Find the option that is not similar to the elements in the given set: (Angle between diagonals of a rhombus, each angle of a rectangle, each angle of a square)

(A) Angle in a semicircle

(B) Half of sum of opposite angles of a cyclic quadrilateral

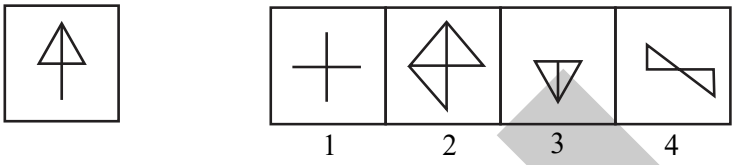
(C) Each angle of an equilateral triangle

(D)Angle opposite to hypotenuse in a right angled triangle

Ans. C

Sol. Each angle of an equaliteral triangle except C in all other option angle is 90°.

75. Given below is a figure on the left with a pattern. In which of the four images on the right can this pattern be found as a part of that image?



(A) 1 (B) 2 (C) 3 (D) 4

Ans. B

Sol. By observation.

76. Given options shows four time instances. In which of these cases, the hour hand and minute hand will be closest to each other when this time is seen on a clock?

(A) 7:00 (B) 2:30 (C) 9:30 (D) Both 2:30 and 9:30

Ans. D

Sol. The hands will be closest to each other means the angle between them will be smallest among the given options both in 2:30 and 9:30 O'clock the angle between the hands will be

$$\left|2\times 30-\frac{11}{2}\times 30\right|=|60-165|=105°$$

$$\left|9\times 30-\frac{11}{2}\times 30\right|=|170-165|=105°$$

Which is smalles so correction option will be D.

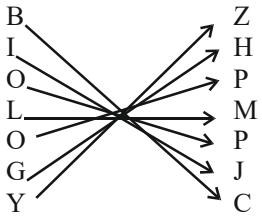
77. Select one of the following four options that will make the second pair analogous to the first pair given as

BIOLOGY : ZHPMPJC :: CHEMISTRY

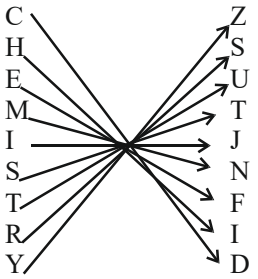
(A) ZSUJTFN|D (B) ZUSJTNDIF (C) ZSUTJNFID (D) ZUSTNFJID

Ans. C

Sol.



(next letter then reverse)



78. Using the letters in the words VAIN, CAR and POROUS, a word can be formed that mean the group of animals that eat other animals. What it would be?

(A) HERBIVOROUS (B) OMNIVOROUS (C) CARNIVOROUS (D) AUTOTROPHS

Ans. C

Sol. The word CARNIVOROUS has all the given letters in the words : VAIN, CAR and POROUS

79. In a certain code language "ACTIVATE" is coded as "BCUIWAUE" How is "CATALYST" coded in that language

(A) ADYMYUAT (B) ADMYUATT (C) DAUAMYTT (D) DUAAMYTT

Ans. C

Sol.
A → B (next)
C C
A → U (next)
I I
A → W (next)
A A
A → U (next)
E E

Alternatively the letters are replaced by the next letter and the same letter. So the answer will be

CATALYST → DAUAMYTT

80. In three of the options, the 2nd number is related to the 1st number in a similar logical way. Which is the odd one out?

(A) 72-14 (B) 1480-32 (C) 288 -128 (D) 8640 - 0

Ans. B

Sol. Here the product of digits of every number is written to the right.

So the answer is 1480 - 32, became there should have been '0' incase of 32.

81. Among the first 100 terms of this series, how many will be odd :

6, 23,74, 227, 1140 ?

(A) 0 (B) 25 (C) 50 (D) 100

Ans. C

Sol. 6, 23, 74, 227, 1140

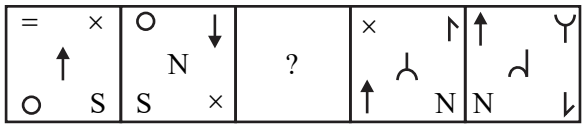
×3 + 5 × 3 + 5 × 3 + 5 × 5 + 5 × 5 + 5

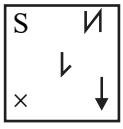
The series is fermed here is multiplied and then added to an odd number. We know that

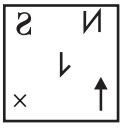
$\begin{pmatrix}\text{Even}\times\text{odd}=\text{Even}\\ \text{Even}+\text{odd}=\underline{\text{Odd}}\end{pmatrix}$ and $\begin{pmatrix}\text{odd}\times\text{odd}=\text{Odd}\\ \text{odd}+\text{odd}=\underline{\text{Even}}\end{pmatrix}$

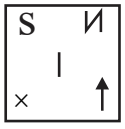
By using these to logic we can see that alternatively one odd and one even number will appear in the series. So ans will be 50.

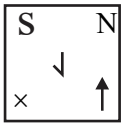
82. Which of the following figures will complete the figural series given below ?



(A) 

(B) 

(C) 

(D) 

Ans. A

Sol. By observation.

83. A list of meaningful words are given in the options. In which case, the word formed has at least a pair of consecutive alphabets?

(A) CLEAR (B) FORCE (C) CRANE (D) BLUSH

Ans. B

Sol. The word 'FORCE' has both 'E' & 'F' which are consecutive letters.

84. The given options show four time instances. In which of these cases, the hour hand and minute hand will be farthest from each other when this time is seen on a clock?

(A) 6:00 (B) 2:30 (C) 4:30 (D) 7:30

Ans. A

Sol. At 6 : 00 tbe angle between the hands is 180°, which is as farthest as hands can be.

85. Which of the following geometric figures CANNOT be found in given image?

(A) parallelogram (B) Rectangle (C) Circle (D) Triangle

Ans. C

Sol. By observation.

86. Which number replaces the question mark in the given series?

1, 2/5, 4/25, 8/125, ?

(A) 606/5 (B) 10058/3 (C) 3/5 (D) 16/625

Ans. D

Sol. 1 , 2/5 , 4/25 , 8/125 , 16/625

X2/5 X2/5 X2/5 X2/5

87. Some words are given in the options. In which case, the word formed has at least a pair of consecutive alphabets ?

(A) NIGHT (B) PAINS (C) CLEAR (D) SWING

Ans. A

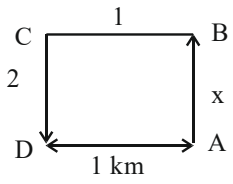
The word 'NIGHT' has both 'G' & 'H' which are consecutive.

88. Pari kumari rode her horse northward, then she turned left and rode 1 km and again turned left and rode 2 km. She found herself 1 km west of her beginning point. How far did she ride northward initially?

(A) l km (B) 2 km (C) 3 km (D) 5 km

Ans. B

Sol.



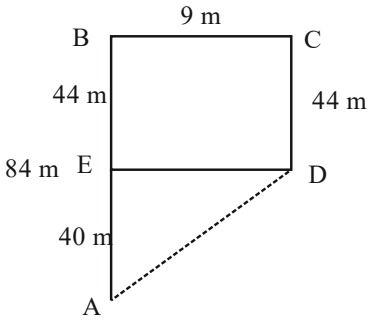
The distance covered from A to B is 2 km.

89. Mohan walked 84 m to the north, then he turns to his right and walks 9 m, again he moves 44 m to his right. How far is he from the starting point?

(A) 41 m (B) 45 m (C) 50 m (D) 59 m

Ans. A

Sol.



The distance between AD is

$AD = \sqrt{AE^2 + ED^2}$

$= \sqrt{9^2 + 40^2}$

$= \sqrt{1681} = 41$ m

90. Choose the odd one out based on the position alphabets.

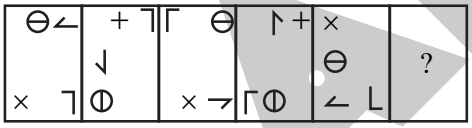
BDGWY, ACFXZ, FHJSU, GILRT

(A) BDGWY (B) ACFXZ (C) FHJSU (D) GILRT

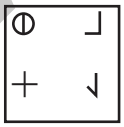
Ans. C

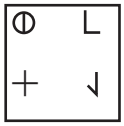
Sol. Here the first and last letters are of same position but in opposite order similarly second and second last letters and there is a sequence of +2, +3 between first, second and thrid letter. So 'FHJSU' is the odd one out.

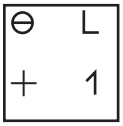
91. Which of the following figures will complete the figural series given below?



(A) 

(B) 

(C) 

(D) 

Ans. C

Sol. By observation.

92. Three out of the four are perfect squares. Which is the odd one out?

6241,7569, 4993, 8649.

(A) 6241 (B) 7569 (C) 4993 (D) 8649

Ans. C

Sol. 4993 is not a perfect square.

93 How many 6s in 888862686622888866888 are immediately preceded by 2 but NOT immediately followed by 8?

(A) 3 (B) 0 (C) 4 (D) 2

Ans. B

Sol. There are no such 6's which satisfies the given condition.

94. Choose the odd one out based on the position alphabets

ABYZ, DFUW, FIRV, MEVN

(A) ABYZ (B) DFUW (C) FIRV (D) MEVN

Ans. C

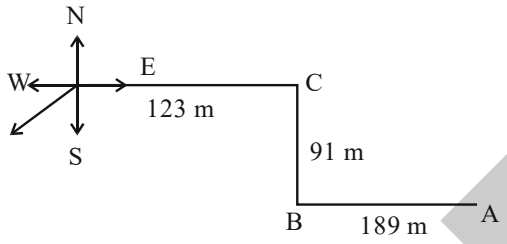
Sol. Here the first and last letter are reversly related similarly second and second last letter basing on that 'FIRV' is the odd none out.

95. A girl moves a distance of 189 m towards west. Then she turned to the right and walks for about 91 m. She turned left and moves 123 m. Finally she turned to the left at an angle of 45° and started moving. In which direction was she moving finally ?

(A) North (B) North East (C) East (D) South West

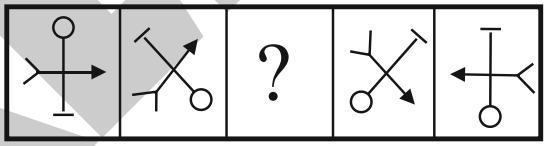
Ans. D

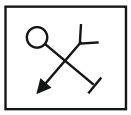
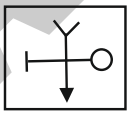
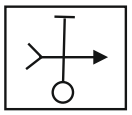
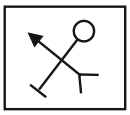
Sol.



He was moving towards South West at the end.

96. Which of the following figures will complete the figural series given below?

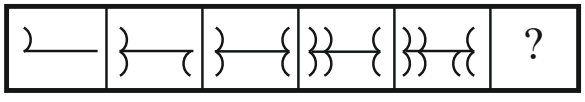


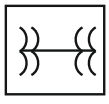
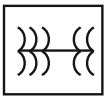
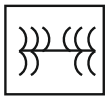
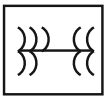
(A)  (B)  (C)  (D) 

Ans. B

Sol. By observation.

97. Which of the following figures will complete the figural series given below?

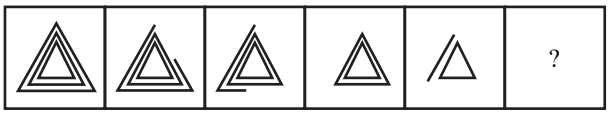


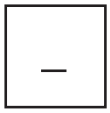
(A)  (B)  (C)  (D) 

Ans. D

Sol. By observation and by counting the curved lines.

98. Which of the following figures will complete the figural series given below ?



(A) 
(B) 
(C) 
(D) 

Ans. B

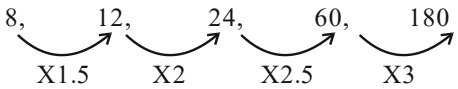
Sol. By observation.

99. What will be the next term of the series

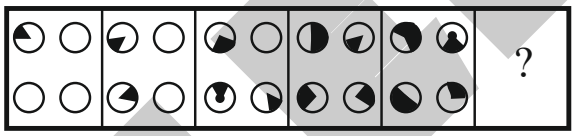
Sol. 8, 12, 24, 60, ___ ?

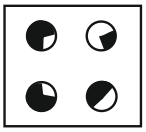
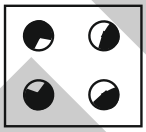
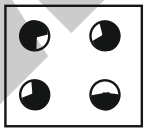
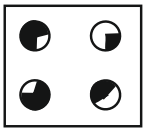
(A) 90 (B) 120 (C) 160 (D) 180

Ans. D

Sol. 8, 

100. Which of the following figures will complete the figural series given below?



(A) 
(B) 
(C) 
(D) 

Ans. A

Sol. By observation.

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