
SSC JE

General Intelligence & Reasoning

CIVIL/Electrical/Mechanical SOLVED PAPERS

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SSC Junior Engineer Syllabus

CIVIL/ELECTRICAL/MECHANICAL

The Examination will be conducted in two stages–

A. Paper-I (Pre) (200 marks) (Objective)

B. Paper-II (Mains) (300 marks) (Descriptive)

Total Written Test (500 marks)

Written Test :

Paper	Subject	Max. Marks	Duration & Timing
Paper-I Objective type	(i) General Intelligence & Reasoning	50	2 Hours
	(ii) General Awareness	50	
	(iii) General Engineering (CIVIL)	100	
Paper-II Conventional	General Engineering (Specific Subject)	300	2 Hours

There will be negative marking of **0.25 marks** for each wrong answer in Paper-I. Candidates are, therefore advised to keep this in mind while answering the questions. Paper-II will be of Descriptive Type.

SSC JE Syllabus of Examination

- **Indicative Syllabus:** The standard of the questions in Engineering subjects will be approximately of the level of Diploma in Engineering (Civil/ Electrical/ Mechanical) from a recognized Institute, Board or University recognized by All India Board of Technical Education. All the questions will be set in SI units. The details of the syllabus are given below.

Paper-I

- **General Intelligence & Reasoning:** The Syllabus for General Intelligence would include questions of both verbal and non-verbal type. The test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc. The test will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationships, arithmetical computations and other analytical functions.
- **General Awareness:** Questions will be aimed at testing the candidate's general awareness of the environment around him/her and its application to society. Questions will also be designed to test knowledge of current events and of such matters of everyday observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to India and its neighbouring countries especially pertaining to History, Culture, Geography, Economic Scene, General Polity and Scientific Research, etc. These questions will be such that they do not require a special study of any discipline.

SSC Junior Engineer Online Exam 2018

CPWD/CWC/MES

CIVIL Engineering

Time : 10-15 am]

[Exam Date : 22 January, 2018

REASONING

1. In the following question, select the related word pair from the given alternatives.

Rain : Clouds :: ? : ?

- (a) Rice : Food (b) Grey : Colour
(c) Heat : Sun (d) Snow : Mountains

Ans : (c) Just as the rain is related to clouds in the same way heat is related to sun.

2. In the following question, select the related word from the given alternatives.

Cactus : Plant :: Rice : ?

- (a) Basmati (b) Crop
(c) White (d) Rabi

Ans : (b) Just that the Cactus is the type of plant similarly the Rice is the type of crop.

3. In the following question, select the related word from the given alternatives.

Pink : Colour :: Eagle : ?

- (a) Black (b) Symbol
(c) Bird (d) Sky

Ans : (c) Just that the Pink is type of colour in the same way Eagle is the type of Bird.

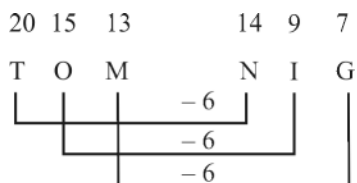
4. In the following question, select the related letter pair from the given alternatives.

TOM : NIG :: ? : ?

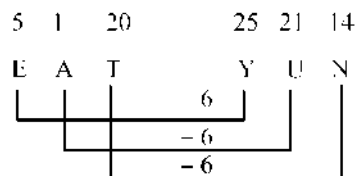
- (a) EAT : YUN (b) EAT : XXM
(c) FAT : LMV (d) EAT : ZXC

Ans : (a)

Just as



Similarly



So, ? ⇒ EAT : YUN

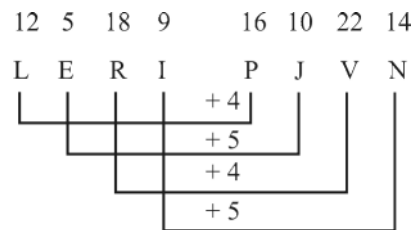
5. In the following question, select the related letters from the given alternatives.

LERI : PJVN :: MONT : ?

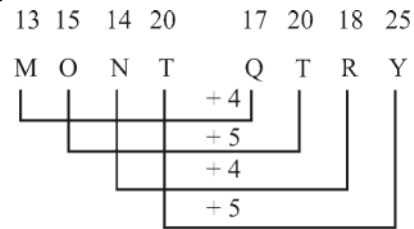
- (a) WRTY (b) QTRY
(c) RITY (d) RQYB

Ans : (b)

Just as



Similarly



So, ? ⇒ QTRY

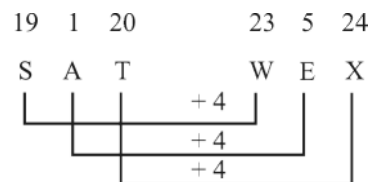
6. In the following question, select the related letters from the given alternatives.

SAT : WEX :: MET : ?

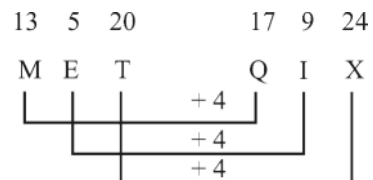
- (a) AQI (b) IYX
(c) FHY (d) QIX

Ans : (d)

Just as



Similarly



So, ? ⇒ QIX

7. In the following question, select the related number from the given alternatives.

$$43 : 7 :: 23 : ?$$

- (a) 6 (b) 4
(c) 7 (d) 5

Ans : (d)

Just as $43 \Rightarrow 4 + 3 = 7$

Similarly $23 \Rightarrow 2 + 3 = 5$

So, the number from the given alternatives is 5.

8. In the following question, select the related number from the given alternatives.

$$38 : 53 :: 53 : ?$$

- (a) 72 (b) 68
(c) 79 (d) 87

Ans : (b)

Just as

$$\begin{array}{ccc} 38 & : & 53 \\ \hline & & + 15 \end{array}$$

Similarly

$$\begin{array}{ccc} 53 & : & 68 \\ \hline & & + 15 \end{array}$$

So, $? \Rightarrow 68$

Note– The number of the second group is obtain by adding 15 in the first group number.

9. In the following question, select the related number from the given alternatives.

$$9 : 81 :: 11 : ?$$

- (a) 78 (b) 93
(c) 121 (d) 146

Ans : (c)

Just as $(9)^2 = 81$

Similarly $(11)^2 = 121$

Note– The number of the second group is obtain by square the first group number.

So the number is 121

10. In the following question, select the odd word from the given alternatives.

- (a) Goggle (b) Purse
(c) Accessories (d) Belt

Ans : (c) Goggle, purse and belt are all come under the accessories. So, accessories is the odd word from the given alternatives.

11. In the following question, select the odd word from the given alternatives.

- (a) Grapes (b) Guava
(c) Cauliflower (d) Orange

Ans : (c) Grapes, guava and orange are the types of fruits and cauliflower is the type of vegetable. So, cauliflower is the odd word from the given alternatives.

12. In the following question, select the odd word from the given alternatives.

- (a) Sparrow (b) Rat
(c) Ostrich (d) Parrot

Ans : (b) Sparrow, ostrich and parrot are the types of birds where as the rat are the mammals. So, rat is the word which different from given alternatives.

13. In the following question, select the odd letters from the given alternatives.

- (a) GCXTO (b) KGBXS
(c) RNIEX (d) QMHDY

Ans : (c)

(a) $\begin{array}{ccccc} G & C & X & T & O \\ \hline & & & & \\ -4 & -5 & -4 & -5 & \end{array}$

(b) $\begin{array}{ccccc} K & G & B & X & S \\ \hline & & & & \\ -4 & -5 & -4 & -5 & \end{array}$

(c) $\begin{array}{ccccc} R & N & I & E & X \\ \hline & & & & \\ -4 & -5 & -4 & -7 & \end{array}$

(d) $\begin{array}{ccccc} Q & M & H & D & Y \\ \hline & & & & \\ -4 & -5 & -4 & -5 & \end{array}$

So, the option (c) is different from given

14. In the following question, select the odd letters from the given alternatives.

- (a) SOKG (b) AWSO
(c) RNJF (d) CYTP

Ans : (d)

(a) $\begin{array}{cccc} 19 & 15 & 11 & 7 \\ S & O & K & G \\ \hline \uparrow & \uparrow & \uparrow & \\ -4 & -4 & -4 & \end{array}$

(b) $\begin{array}{cccc} 1 & 23 & 19 & 15 \\ A & W & S & O \\ \hline \uparrow & \uparrow & \uparrow & \\ -4 & -4 & -4 & \end{array}$

(c) $\begin{array}{cccc} 18 & 14 & 10 & 6 \\ R & N & J & F \\ \hline \uparrow & \uparrow & \uparrow & \\ -4 & -4 & -4 & \end{array}$

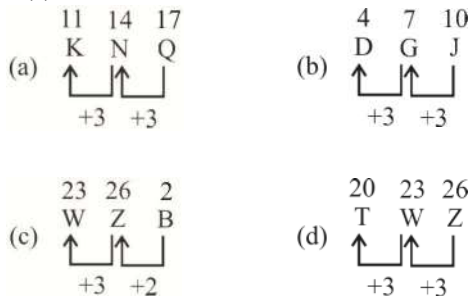
(d) $\begin{array}{cccc} 3 & 25 & 20 & 16 \\ C & Y & J & P \\ \hline \uparrow & \uparrow & \uparrow & \\ -4 & -5 & -4 & \end{array}$

So, the option (d) is the odd from the given alternatives.

15. In the following question, select the odd letters from the given alternatives.

- (a) KNQ (b) DGJ
(c) WZB (d) TWZ

Ans: (c)

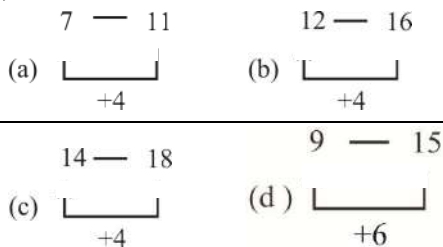


So, the option (d) is different from the given alternatives.

16. In the following question, select the odd number from the given alternatives.

- (a) 7-11 (b) 12-16
(c) 14-18 (d) 9-15

Ans : (d)



So, the option (d) is different from the given alternative.

17. In the following question, select the odd number from the given alternative.

- (a) 2-4 (b) 3-9
(c) 4-18 (d) 5-25

Ans : (c)

- (a) $2^2 = 4$ (b) $3^2 = 9$
(c) $4^2 \neq 18$ (d) $(5)^2 = 25$

The square of 4 is equal to 16 but in the given option is equal 18. So, option (c) is the odd number from given alternatives.

18. In the following question, select the odd number pair from the given alternatives.

- (a) 76-42 (b) 92-20
(c) 73-21 (d) 93-27

Ans : (b)

- (a) $76 - 42 \Rightarrow 7 \times 6 = 42$
(b) $92 - 20 = 9 \times 2 = 18 \neq 20$
(c) $73 - 21 = 7 \times 3 = 21$
(d) $93 - 27 = 9 \times 3 = 27$

So, the option (b) is different from the given alternatives.

19. Arrange the given words in the sequence in which they occur in the dictionary.

- (1) **Flagrant** (2) **Flavour**
(3) **Flatter** (4) **Flick**

(5) **Flawed**

- (a) 13254 (b) 31254
(c) 23541 (d) 32541

Ans : (a) Arrangement of the words according to the sequence in the dictionary are-

- (i) **Flagrant**
(ii) **Flatter**
(iii) **Flavour**
(iv) **Flawed**
(v) **Flick**

20. According to dictionary, which of the following word will come at THIRD position?

- (1) **Heritage** (2) **Helpful**
(3) **Hectic** (4) **Heroic**
(5) **Heroism**
(a) **Hectic** (b) **Heritage**
(c) **Heroic** (d) **Helpful**

Ans : (b) Arrangement of words according to dictionary are-

- Hectic
- Helpful
- Heritage - 3rd position
- Heroic
- Heroism

So, the word 'Heritage' will come at third position.

21. From the given alternatives, according to dictionary, which word will come at LAST position?

- (a) **Juvenile** (b) **Justify**
(c) **Judge** (d) **Justice**

Ans : (a) Arrangement of words according to dictionary are-

- Judge
- Justice
- Justify
- Juvenile -Last position

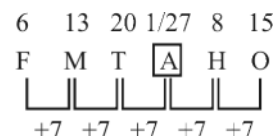
So, the word 'Juvenile' will come at last position.

22. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

F, M, T, ?, H, O

- (a) **B** (b) **C**
(c) **A** (d) **D**

Ans : (c)



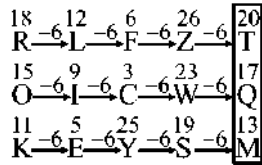
Note- $A = 1$ or $1 + 26 = 27$

23. A series is given with one term missing. Select the correct alternative from the given that will complete the series.

ROK, LIE, FCY, ZWS, ?

- (a) LAQ (b) SRV
(c) TQM (d) FMQ

Ans : (c)



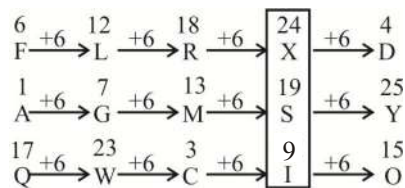
So, TQM, are the correct alternatives from the given that will complete the series.

24. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

FAQ, LGW, RMC, ?, DYO

- (a) VIR (b) XSI
(c) LSI (d) MIS

Ans : (b)



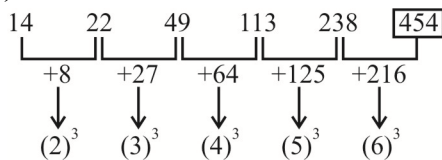
So, XSI are the term which is complete the series.

25. In the following question, select the missing number from the given alternatives.

14, 22, 49, 113, 238, ?

- (a) 386 (b) 532
(c) 454 (d) 576

Ans : (c)



So, the missing number is 454 from the given alternatives.

26. In the following question, select the missing number from the given alternatives.

42, 21, 21, 31.5, 63, ?

- (a) 169.75 (b) 157.5
(c) 152.5 (d) 126.75

Ans : (b)

$$42 \times \frac{1}{2} = 21, \quad 21 \times \frac{2}{2} = 21,$$

$$21 \times \frac{3}{2} = 31.5, \quad 31.5 \times \frac{4}{2} = 63,$$

$$63 \times \frac{5}{2} = 157.5$$

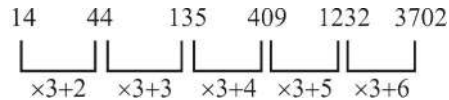
So, the missing number is 157.5 from the given alternatives.

27. In the following question, select the missing number from the given alternatives.

14, 44, 135, 409, 1232, ?

- (a) 2962 (b) 3340
(c) 3702 (d) 3406

Ans : (c)



So, 3702 is the missing number from the given alternatives.

28. E is sitting between D and A, B is to the right of A, C is at one of the ends and C and D are sitting next to each other. Who is sitting third?

- (a) D (b) A
(c) B (d) E

Ans : (d) The arrangement of sitting according to question

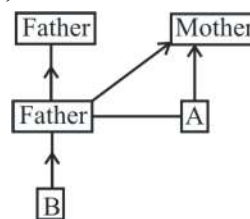


So E is sitting at the third position.

29. Showing a photograph of a married couple B said that the gentleman in it was his father's father and A said that the lady in it was her mother. How is A related to B?

- (a) A is B's mother's sister
(b) A is B's sister
(c) A is B's Father's sister
(d) A is B's mother

Ans : (c)



So, A is B's father's sister.

Note- The gender of A is not given in question but according to option A is B's father's sister.

30. From the given alternative words select the word which cannot be formed using the letters of the given word.

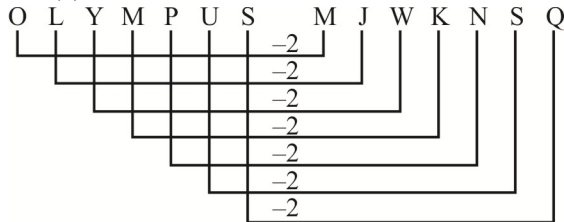
MERCANTILE

- (a) truce (b) learn
(c) trace (d) claim

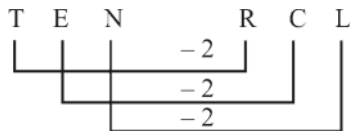
Ans: (a) Truce is the word which cannot be formed by using the letters of MERCANTILE because the letter U is not present in the given word.

31. If **OLYMPUS** is coded as **MJWKNSQ**, then how will **TEN** be coded as?
- (a) RCL (b) GVM
(c) SDM (d) UFO

Ans : (a) Just as



Similarly,



So, the TEN be coded as RCL.

32. In a certain code language, **1875** means 'wound the round watch', **1643** means 'a cake is round' and **7321** means 'watch a round wheel'. Find the code for 'watch'.
- (a) 1 (b) 8
(c) 5 (d) 7

Ans : (d)

- 1 8 7 5 wound the round watch (i)
1 6 4 3 a cake is round (ii)
7 3 2 1 watch a round wheel (iii)

In the equation (i) and (iii) the watch and 7 are exist due this it is clean that the code for ['watch' = 7]

33. In a certain code language, '+' represents '-', '-' represents 'x', 'x' represents '÷' and '÷' represents '+'. Find out the answer to the following question.
- $96 \times 4 \div 125 + 25 - 5 = ?$
- (a) 23 (b) 24
(c) 50 (d) 8

Ans : (b)

$$+ = -, - = \times, \times = \div, \div = +$$

$$96 \times 4 \div 125 + 25 - 5 = \text{Equation}$$

According to question by changing the mathematical expression and solving the equation.

$$\begin{aligned} \Rightarrow 96 \div 4 + 125 - 25 \times 5 \\ \Rightarrow 24 + 125 - 125 \\ \Rightarrow 149 - 125 \\ \Rightarrow 24 \end{aligned}$$

So, the answer of the given equation is 24.

34. If $17 \$ 22 = 4$ and $56 \$ 13 = 7$, then find the value of $71 \$ 25 = ?$
- (a) 56 (b) 96
(c) 1 (d) 8

Ans : (c) Just as

$$\begin{aligned} 17 \$ 22 &= 4 \\ \Rightarrow (1+7) - (2+2) \\ \Rightarrow 8 - 4 &= 4 \end{aligned}$$

$$\begin{aligned} \text{And } 56 \$ 13 &= 7 \\ (5+6) - (1+3) \\ 11 - 4 &= 7 \end{aligned}$$

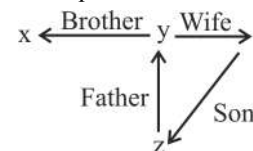
$$\begin{aligned} \text{Similarly } 71 \$ 25 \\ \Rightarrow (7+1) - (2+5) \\ \Rightarrow 8 - 7 &= 1 \end{aligned}$$

So, the value of $71 \$ 25 = 1$

35. If **A \$ B** means **A is son of B**, **A # B** means **A is brother of B** and **A * B** means **A is father of B**, then what does **X # Y * Z \$ W** mean?
- (a) W is X's brother's wife
(b) W is X's wife
(c) W is X's mother
(d) W is X's sister

Ans : (a)

- $A \$ B \rightarrow A$ is son of B
 $A \# B \rightarrow A$ is brother of B
 $A * B \rightarrow A$ is father of B
 $x \# y * z \$ w$ equation



So, W is X's brother's wife

36. Select the missing number from the given responses:
- | | | |
|---|---|----|
| 1 | 4 | 2 |
| 2 | 7 | 10 |
| 3 | ? | 12 |
- (a) 3 (b) 9
(c) -3 (d) 11

Ans : (d)

From the first column

$$1 + 2 = 3$$

From the second column

$$4 + 7 = \boxed{11}$$

And, from the third column

$$2 + 10 = 12$$

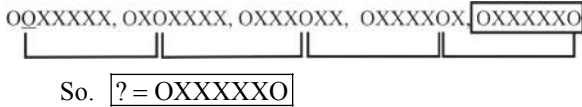
So, the missing number is 11 from the given responses.

37. Which of the following terms follows the trend of the given list?

OXXXXX, OXOXXXX, OXXOXXX, OXXXOXX, OXXXXOX,

- (a) XOXXXXO (b) XOXXXXOX
(c) OXXXXOXX (d) OXXXXXO

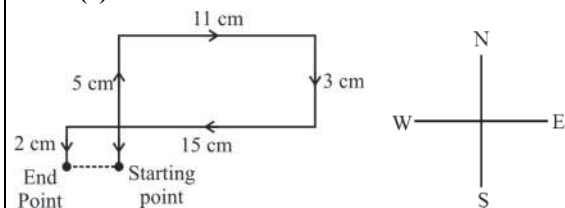
Ans : (d) The term OXXXXXO is follows the trend of the given list. The second place O will be shifted from left to right in each next terms.



38. A scientist is studying the behaviour of an ant. The ant picks food and walks 5 cm North, then it turns to its right and walks for another 11 cm. Then it turns right and walks 3 cm, then it turns West and walks 15 cm, then finally it turns to its left and walks 2 cm. Where is the ant now with respect to its starting point?

- (a) 4 cm East (b) 26 cm West
(c) 4 cm West (d) 26 cm East

Ans : (c)

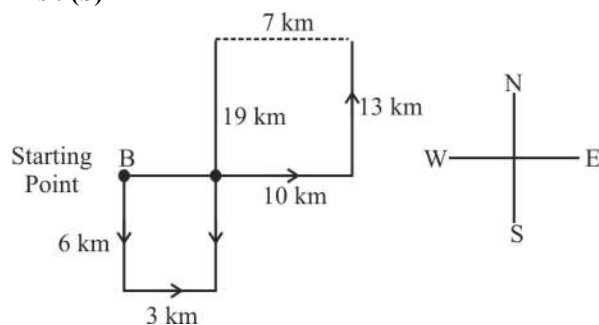


So, 4 cm west is the Ant now with respect to its starting point.

39. Two football players start running from the same point on the ground. Player A runs 10 km East, then turns to his left and runs 13 km. In the meanwhile Player B runs 6 km South, then he runs 3 km East, then he turns to his left and runs 19 km. Where is Player A with respect to Player B?

- (a) 7 km West (b) 7 km East
(c) 13 km East (d) 13 km West

Ans : (b)



So, player A is 7 km East with respect to player B.

40. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement I : Some chapters are physics.

Statement II : All science is physics.

Conclusion I : All science is chapters

Conclusion II : Some physics is science

- (a) Only conclusion I follows
(b) Only conclusion II follows
(c) Both conclusions I and II follow
(d) Neither conclusion I nor conclusion II follows

Ans : (b)



Conclusion I : All science is chapter (x)

Conclusion II : Some physics is science (✓)

So, only conclusion II is follows.

41. In the question three statements are given, followed by three conclusions, I, II and III. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement I : All success is victory

Statement II : All luck is success

Statement III : Some hard work is luck

Conclusion I : Some success is hard work

Conclusion II : Some hard work is victory

Conclusion III : No victory is luck

- (a) Only conclusions I and II follows
(b) Only conclusions II and III follows
(c) Only conclusions I and III follow
(d) All conclusions I, II and III follow

Ans : (a)



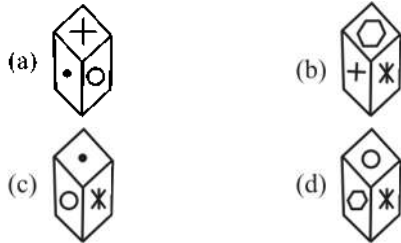
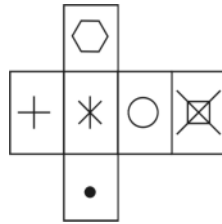
Conclusion I : Some success is hard work (✓)

Conclusion II : Some hard work is victory (✓)

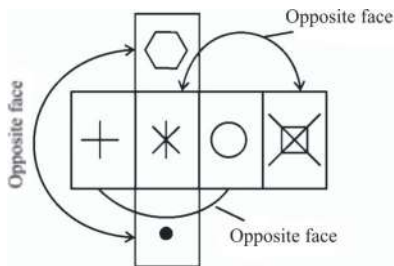
Conclusion III : No victory is luck (x)

So, only conclusion I and II follows.

42. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?

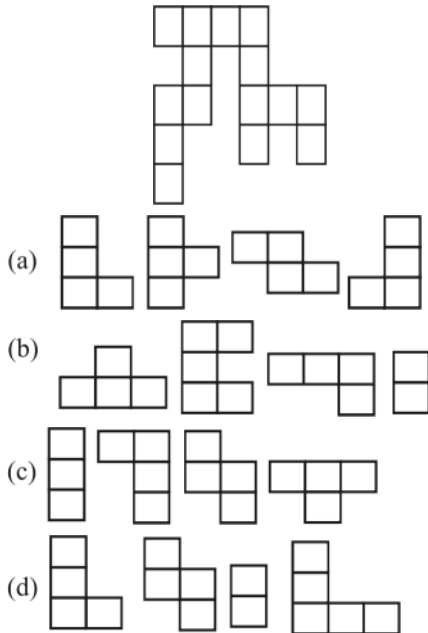


Ans : (a)



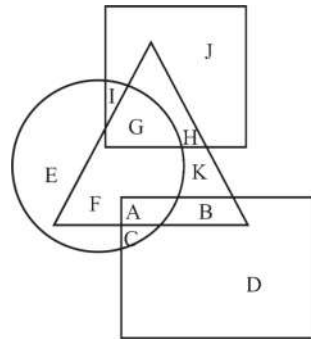
The cube in option (a) in the answer figure cannot be made based on the unfolded cube in the question figure. In option (a) + and O are shown in a cube, but in question figure it will give equal end opposite site.

43. Which of the following answer figure patterns can be combined to make the question figure?



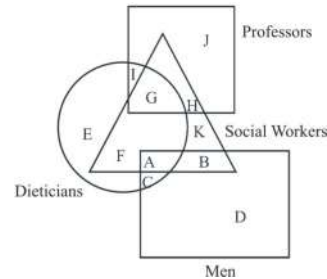
Ans : (b) The answer figure patterns (b) can be combined to make the question figure.

44. In the following figure, square represents professors, triangle represents Social Workers, circle represents Dieticians and rectangle represents Men. Which set of letters represents Dieticians who are not men?



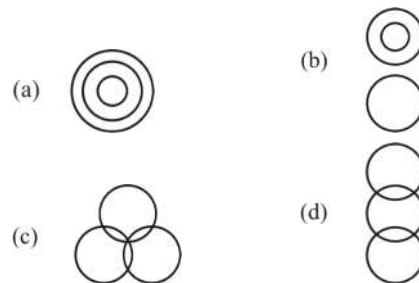
- (a) EFGI
- (b) BDKHJ
- (c) IGAC
- (d) DEJI

Ans : (a)

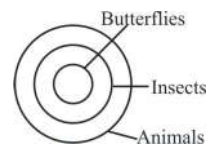


So, the set of letters EFGI represents dieticians who are not men.

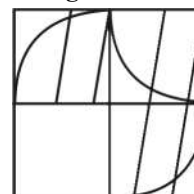
45. Which of the following Venn diagrams represents the relationship between Butterflies, Animals and Insects?

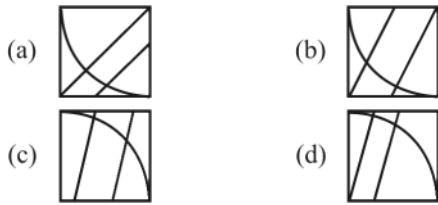


Ans: (a)



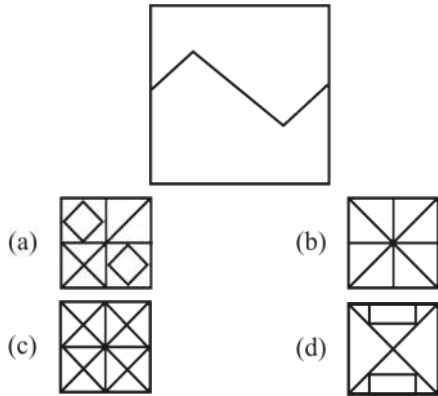
46. Which answer figure will complete the pattern in the question figure?





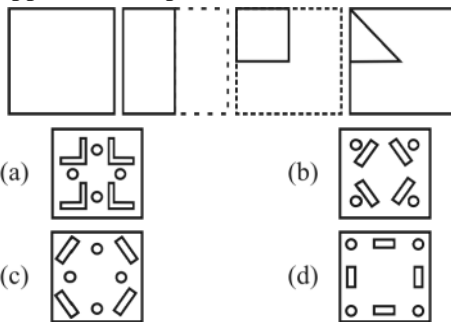
Ans : (c) The pattern in the question figure is completed by the answer figure (c).

47. From the given answer figures, select the one in which the question figure is hidden/embedded.



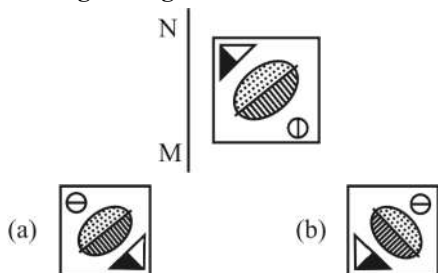
Ans : (c) The question figure is hidden/embedded in the answer figure (c).

48. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.



Ans : (c) According to the question when a piece of paper is folded and punched and then open it will appear as answer figure (c).

49. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?



Ans : (d) If a mirror is placed on the line MN then the answer figures of option (d) is right image of the given figure.

50. A word is represented by only set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example 'C' can be represented by 43, 41 etc and 'O' can be represented by 97, 78 etc. Similarly, you have to identify the set for the word 'SPAN'.

Matrix-I आव्यूह-I					
	0	1	2	3	4
0	M	M	M	1	E
1	A	M	J	1	A
2	F	I	M	1	E
3	I	J	A	L	K
4	D	C	A	C	L

Matrix-II आव्यूह-II					
	5	6	7	8	9
5	N	V	Q	U	S
6	R	S	T	U	N
7	S	Z	X	O	V
8	X	S	P	W	P
9	U	X	O	Y	Y

- (a) 66, 87, 33, 56 (b) 59, 78, 42, 31
(c) 86, 89, 32, 55 (d) 78, 43, 22, 98

Ans : (c)

- (a) 66 87 33 56
S P L V – wrong
(b) 59 78 42 31
S O A J – wrong
(c) 86 89 32 55
S P A N – Right
(d) 78 43 22 98
O C M Y – wrong

So, the SPAN is represented by the set of number i.e. 86,89,32,55.

SSC Junior Engineer Online Exam 2018

CPWD/CWC/MES

Civil Engineering

Time : 3-15 pm]

[Exam Date : 22 January, 2018 Evening

REASONING

1. In the following question, select the related word pair from the given alternatives.

Car : Tyre :: ? : ?

- (a) House : Room (b) Labour : Salary
(c) Camera : Photo (d) House : People

Ans : (a) Tyre is a part of car similarly room is the part of house.

2. In the following question, select the related word from the given alternatives.

Triangle : Figure :: Car : ?

- (a) Vehicle (b) Seat
(c) Road (d) White

Ans : (a) Triangle is the type of figure in the same way car is type of vehicle.

3. In the following question, select the related word from the given alternatives.

Hour : Minute :: Kilometer : ?

- (a) Meter (b) Gram
(c) Litre (d) Weight

Ans : (a) As that minute is a small unit of hour. Similarly meter is a small unit of kilometer.

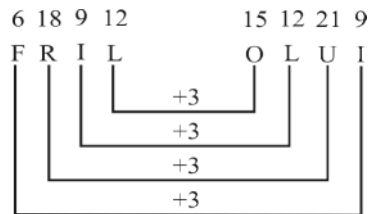
4. In the following question, select the related letters from the given alternatives.

FRIL : OLUI :: TRAM : ?

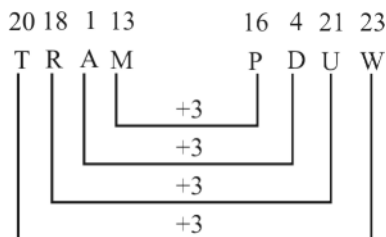
- (a) PKUW (b) BDFW
(c) DPFV (d) PDUW

Ans : (d)

Just as,



Similarly,



So **? ⇒ PDUW**

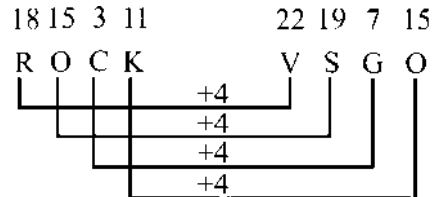
5. In the following question, select the related letters from the given alternatives.

ROCK : VSGO :: BELT : ?

- (a) AKLM (b) FIPX
(c) FCXT (d) ERPX

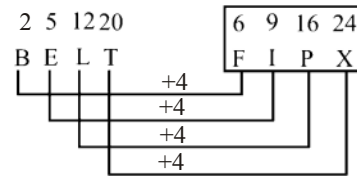
Ans : (b)

Just as



Note– Each letter of the first group is moved four steps forward to obtain the corresponding letter of the second group.

Similarly



So **? ⇒ FIPX**

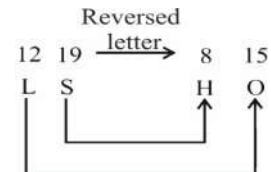
6. In the following question, select the related letters from the given alternatives.

LS : HO :: TQ : ?

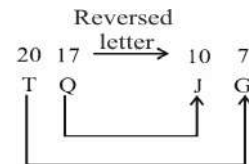
- (a) FM (b) JG
(c) CL (d) TF

Ans : (b)

Just as



Similarly



So **? ⇒ JG**

Note– If the sum of numeric value of letter in English alphabet is 27. Then these two letters are reversed to each other.

7. In the following question, select the related number from the given alternatives.

12 : 50 :: 18 : ?

- (a) 40 (b) 70
(c) 80 (d) 60

Ans : (c) Just as

$$(12 \times 5) - 10, \Rightarrow 60 - 10 = 50$$

Similarly

$$(18 \times 5) - 10, \Rightarrow 90 - 10 = 80$$

8. In the following question, select the related number from the given alternatives.

11 : 121 :: 15 : ?

- (a) 289 (b) 343
(c) 225 (d) 217

Ans : (c)

Just as $(11)^2 = 121$

Similarly $(15)^2 = 225$

9. In the following question, select the related number from the given alternatives.

49 : 56 :: 81 : ?

- (a) 92 (b) 88
(c) 76 (d) 84

Ans : (b)

Just as $49 + 7 = 56$

Similarly $81 + 7 = 88$

So $? \Rightarrow 88$

10. In the following question, select the odd word from the given alternatives.

- (a) Hand (b) Legs
(c) Lungs (d) Ear

Ans : (c) The hand, legs, Ear the external parts of body where as the lungs is the internal part of body. So, lungs is different from other alternatives.

11. In the following question, select the odd word from the given alternatives.

- (a) Lizard (b) Rabbit
(c) Snake (d) Crocodile

Ans : (b) The lizard, snake and crocodile are the reptiles where as rabbit are the mammals. So, rabbit is the odd word from given alternatives.

12. In the following question, select the odd word from the given alternatives.

- (a) Car (b) Bus
(c) Truck (d) Transport

Ans : (d) Car, Bus and Truck are all come under the transportation. So, transport is the odd word from the given alternatives.

13. In the following question, select the odd letters from the given alternatives.

- (a) IFC (b) LIF
(c) SPM (d) GDZ

Ans : (d)

(a) $\begin{matrix} 9 & 6 & 3 \\ I & F & C \\ \hline -3 & -3 \end{matrix}$

(b) $\begin{matrix} 12 & 9 & 6 \\ L & I & F \\ \hline -3 & -3 \end{matrix}$

(c) $\begin{matrix} 19 & 16 & 13 \\ S & P & M \\ \hline -3 & -3 \end{matrix}$

(d) $\begin{matrix} 7 & 4 & 26 \\ G & D & Z \\ \hline -3 & -4 \end{matrix}$

So GDZ are the odd letters from the given alternatives.

14. In the following question, select the odd letters from the given alternatives.

- (a) LO (b) HS
(c) IR (d) CY

Ans : (d) The letters LO, SH and RI are reversed to each other. whereas CY is not reverse letter to each other.

15. In the following question, select the odd letters from the given alternatives.

- (a) XSNI (b) OJEY
(c) UPKF (d) EZUP

Ans : (b)

(a) $\begin{matrix} 24 & 19 & 14 & 9 \\ X & S & N & I \\ \hline -5 & -5 & -5 \end{matrix}$

(b) $\begin{matrix} 15 & 10 & 5/31 & 25 \\ O & J & E & Y \\ \hline -5 & -5 & -6 \end{matrix}$

(c) $\begin{matrix} 21 & 16 & 11 & 6 \\ U & P & K & F \\ \hline -5 & -5 & -5 \end{matrix}$

(d) $\begin{matrix} 5 & 26 & 21 & 16 \\ E & Z & U & P \\ \hline -5 & -5 & -5 \end{matrix}$

So, OJEY are different from the given alternatives.

16. In the following question, select the odd number from the given alternatives.

- (a) 10 - 101 (b) 12 - 145
(c) 24 - 577 (d) 26 - 675

Ans : (d)

$$(10)^2 + 1 \Rightarrow 100 + 1 = 101$$

$$(12)^2 + 1 \Rightarrow 144 + 1 = 145$$

$$(24)^2 + 1 \Rightarrow 576 + 1 = 577$$

$$(26)^2 + 1 \Rightarrow 676 + 1 \neq 675$$

So, 675 are different from the given alternatives.

17. In the following question, select the odd number from the given alternatives.

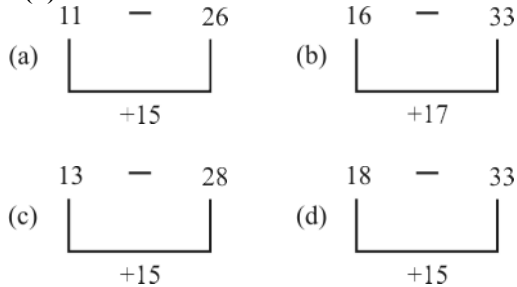
- (a) 23 (b) 37
(c) 41 (d) 51

Ans : (d) The number 23, 37 and 41 are indivisible where as 51 are divisible number. So, 51 are the odd number from the given alternatives.

18. In the following question, select the odd number from the given alternatives.

- (a) 11 - 26 (b) 16 - 33
(c) 13 - 28 (d) 18 - 33

Ans: (b)



So, the option (b) (16-33) are different number from the given alternatives.

19. According to dictionary, which of the following word will come at second position?

- | | |
|-------------|-------------|
| (1) Easily | (2) Earmark |
| (3) Ear | (4) Ease |
| (5) Earthy | |
| (a) Earmark | (b) Earthy |
| (c) Ease | (d) Easily |

Ans : (a) According to dictionary, the position of the words are-

- Ear
- Ear mark - 2nd position
- Earthy
- Ease
- Easily

So, Earmark is the word will come at second position from given words.

20. From the given alternatives, according to dictionary, which word will come at LAST position?

- | | |
|-------------|--------------|
| (a) Opaque | (b) Ointment |
| (c) Orderly | (d) Ordinary |

Ans : (d) According to dictionary their order is-

- Ointment
- Opaque
- Orderly
- Ordinary - 4th position or last position.

So, ordinary is the last word of given word from dictionary

21. Arrange the given words in the sequence in which they occur in the dictionary.

- | | |
|----------------|--------------|
| (1) Outlook | (2) Outlet |
| (c) Outburst | (4) Ornament |
| (d) Outrageous | |
| (a) 43215 | (b) 34215 |
| (c) 25341 | (d) 52341 |

Ans : (a) Arrangement of words according to the sequence in the dictionary are-

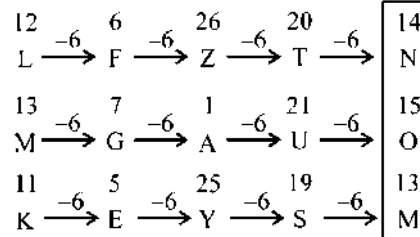
- Ornament
- Outburst
- Outlet
- Out look
- Outrageous

22. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

LMK, FGE, ZAY, TUS, ?

- | | |
|---------|---------|
| (a) BMQ | (b) SRB |
| (c) LZD | (d) NOM |

Ans : (d)



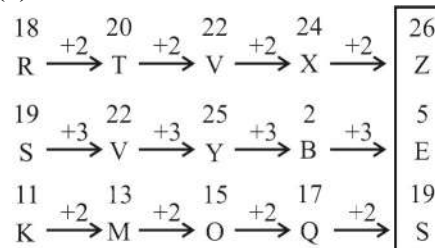
So, ⇒ NOM is the ones that will complete the series.

23. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

RSK, TVM, VYO, XBQ, ?

- | | |
|---------|---------|
| (a) RGT | (b) YFA |
| (c) LQT | (d) ZES |

Ans : (d)



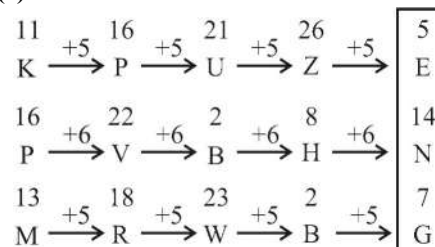
So, ⇒ ZES is the ones that will complete the series.

24. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

KPM, PVR, UBW, ZHB, ?

- | | |
|---------|---------|
| (a) LQU | (b) NGT |
| (c) ENG | (d) HIR |

Ans : (c)



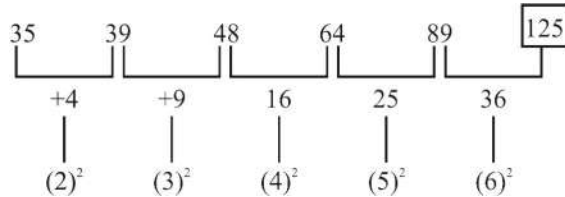
So, ⇒ ENG is the ones that will complete the series.

25. In the following question, select the missing number from the given alternatives.

35, 39, 48, 64, 89, ?

- | | |
|---------|---------|
| (a) 169 | (b) 120 |
| (c) 125 | (d) 134 |

Ans: (c)



So, 125 is the missing number from the given alternatives.

26. In the following question, select the missing number from the given alternatives.

41, 13, 54, 67, 121, ?

- (a) 143 (b) 188
(c) 194 (d) 168

Ans : (b) $41 + 13 = 54$

$13 + 54 = 67$

$54 + 67 = 121$

$67 + 121 = 188$

So \Rightarrow 188 is the missing number from the given alternatives.

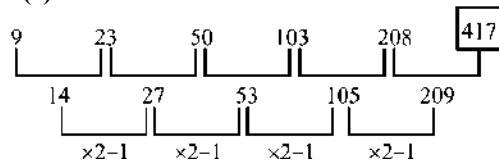
Note- The sum of the previous two numbers is the next number.

27. In the following question, select the missing number from the given alternatives.

9, 23, 50, 103, 208, ?

- (a) 323 (b) 411
(c) 417 (d) 431

Ans : (c)



So, 417 is the missing number from the given alternatives.

28. Five people are standing in a ticket booking line. A, C and D are standing together, D is between A and C. A is immediately behind B and E is immediately behind C. Who is standing second last in the line?

- (a) C (b) E
(c) D (d) A

Ans : (a)

According to equation-

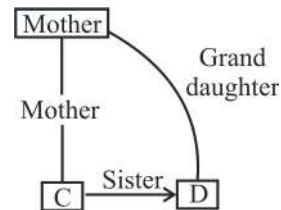


So, C is standing second last in the line.

29. At a family gathering C explained her relation with D by saying that D is the grand daughter of C's mother's mother. If C's mother has no siblings, then how is D related to C?

- (a) Daughter (b) Wife
(c) Sister (d) Mother

Ans : (c)



So, D is the a sister of C

30. From the given alternative words select the word which cannot be formed using the letters of the given word.

CHAUVINIST

- (a) chain (b) acute
(c) stain (d) china

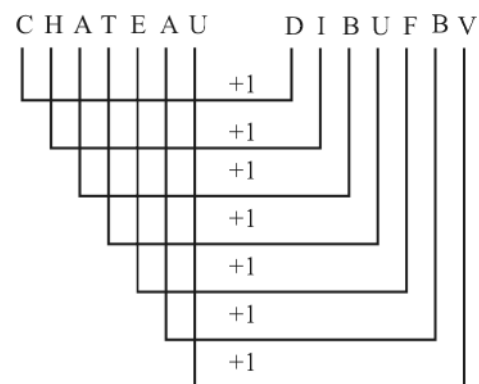
Ans : (b) Acute is the word which cannot be formed using the letters of CHAUVINIST because the letter E is not present in the given word.

31. If CHATEAU is coded as DIBUFBV, then how will FOX be coded as?

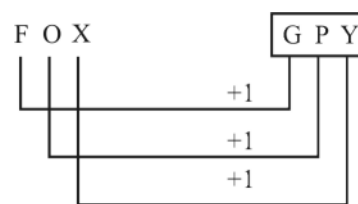
- (a) ULC (b) ENW
(c) GPY (d) GPZ

Ans : (c)

Just as CHATEAU is coded as DIBUFBV



Similarly FOX is coded as GPY

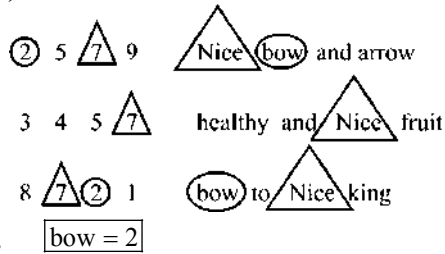


So $?\Rightarrow GPY$

32. In the certain code language, 2579 means 'nice bow and arrow', 3457 means 'healthy and nice fruit' and '8721' means 'bow to nice king'. Find the code for 'bow'.

- (a) 5 (b) 2
(c) 7 (d) 9

Ans: (b)



33. In a certain code language, '+' represent '-', '-' represent 'x', 'x' represents '÷' and '÷' represents '+'. Find out the answer to the following question.

$$100 \times 5 + 15 - 12 \div 6 = ?$$

- (a) 513 (b) 71
(c) -31 (d) -154

Ans : (d) $+=-, -=\times, \times=\div, \div=+$

$$100 \times 5 + 15 - 12 \div 6 \dots \text{Equation.}$$

By changing the mathematical expression and solving given equation.

$$100 \div 5 - 15 \times 12 + 6$$

$$20 - 180 + 6$$

$$26 - 180 = -154$$

34. If $74\% \ 36 = 2$, $29\% \ 61 = 4$ and $19\% \ 26 = 2$ then find the value of $48\% \ 25 = ?$

- (a) 23 (b) 73
(c) 5 (d) 2

Ans : (c)

$$74\% \ 36 = 2$$

$$= (7 + 4) - (3 + 6)$$

$$\Rightarrow 11 - 9 = 2$$

$$29\% \ 61 = 4$$

$$(2 + 9) - (6 + 1)$$

$$\Rightarrow 11 - 7 = 4$$

$$19\% \ 26 = 2$$

$$(1 + 9) - (2 + 6)$$

$$\Rightarrow 10 - 8 = 2$$

$$48\% \ 25$$

$$(4 + 8) - (2 + 5)$$

$$12 - 7 = 5$$

So, the value of $[48\% \ 25 = 5]$

35. If A \$ B means A is daughter of B, A # B means A is brother of B and If A * B means A is father of B, then what does P \$ Q * R # S mean?

- (a) P is mother of S
(b) P is daughter of S
(c) P is sister of S
(d) P is mother's mother of S

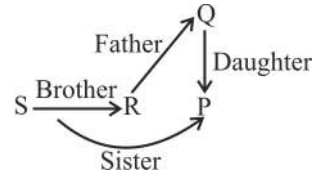
Ans : (c)

$$A \$ B = \text{A is daughter of B}$$

$$A \# B = \text{A is brother of B}$$

$$A * B = \text{A is father of B}$$

P \$ Q * R # S..... Equation



So, P is sister of S.

36. Select the missing number from the given responses.

4	10	?
1	7	8
4	5	9

- (a) 6 (b) 14
(c) 1 (d) 17

Ans : (b)

From the first row-

$$4 + 10 = 14$$

From the second row-

$$1 + 7 = 8$$

From the third row-

$$4 + 5 = 9$$

So, 14 is the missing number from the given responses

37. Which of the following terms follows the trend of the given list?

AABAAAA, ABAAAA, BAAAAA, AAAAAAB, AAAAAA,

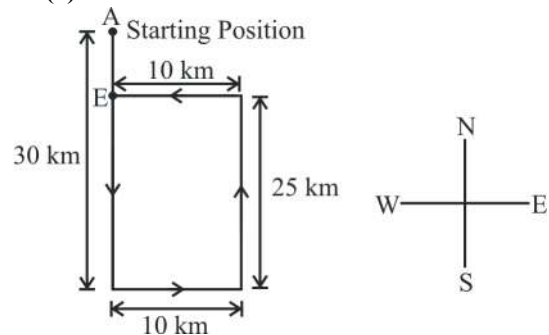
- (a) AAAAABAA (b) AAAABAAA
(c) AAABAAAA (d) AABAAAA

Ans : (a) The terms AABAAAA follows the trend of given list. The letter B move one place from right to left in each terms.

38. A plane takes off and flies 30 km South. Then it turns East and flies 10 km, then it turns to its left and flies 25 km, then it turns and flies 10 km towards West. Where is the plane now with respect to its starting position?

- (a) 5 km South (b) 5 km North
(c) 55 km South (d) 55 km North

Ans : (a)

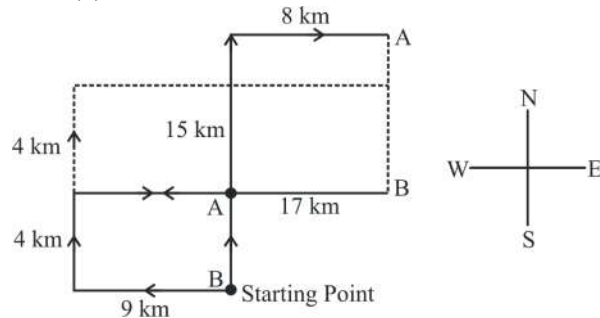


$$\Rightarrow AE = 30 - 25 = 5 \text{ km}$$

So, 5 km south is the plane now with respect to its starting position.

39. Two motorcycle riders start from the same point. Rider A goes 15 km North then turns to his right and rides for another 8 km. Rider B goes 9 km West, then turns North and rides for 4 km and then turns to his right and rides 17 km. Where is rider A with respect to rider B?
- (a) 11 km South (b) 11 km North
(c) 19 km North (d) 19 km South

Ans : (b)



So, the rider A is $(15 - 4) = 11$ km North with respect to rider B.

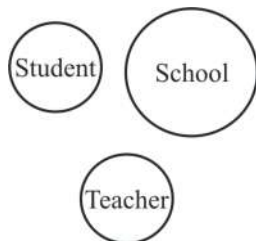
40. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any follows from the given statements.

Statement I : No students are scholars
Statement II : No students are teachers

Conclusion I : Some teachers are scholars
Conclusion II : All scholars are teachers

- (a) Only conclusion I follows
(b) Only conclusion II follows
(c) Both conclusions I and II follow
(d) Neither conclusion I nor conclusion II follows

Ans : (d)



Conclusion I : Some teachers are scholars (×)
Conclusion II : All scholars are teachers (×)

So, neither conclusion I nor conclusion II follows

41. In the question three statements are given, followed by three conclusions, I, II and III. You have to consider the statements to be true even if it seems to be at variance from commonly

known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement I : All cotton is cloth

Statement II : All cotton is shirts

Statement III : Some cotton is woven

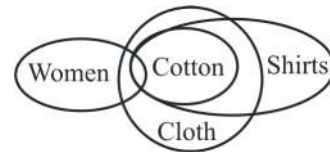
Conclusion I : Some woven is shirts

Conclusion II : Some cloth is woven

Conclusion III : All cloth is shirts

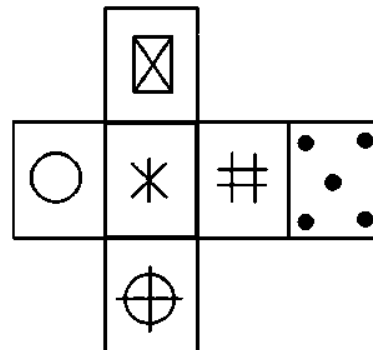
- (a) Only conclusion I follows
(b) Only conclusion II follows
(c) Only conclusions I and II follow
(d) All conclusions I, II and III follow

Ans : (c)



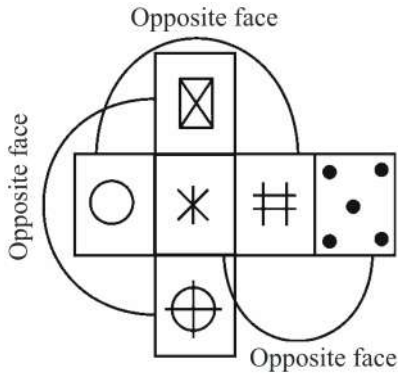
- Conclusion I : Some women is shirts (✓)
Conclusion II : Some cloth is women (✓)
Conclusion III : All cloth is shirts (×)
So, only conclusion I and II follow.

42. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?



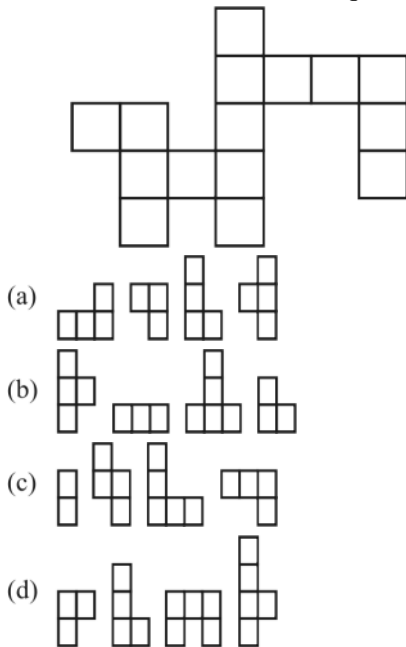
- (a) (b) (c) (d)

Ans : (a)



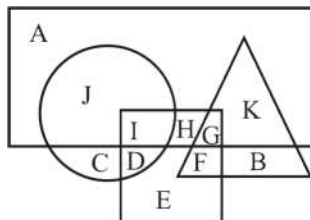
So, cube in the answer figure (a)– cannot be made based on the unfolded cube in the question figure.

43. Which of the following answer figure patterns can be combined to make the question figure?



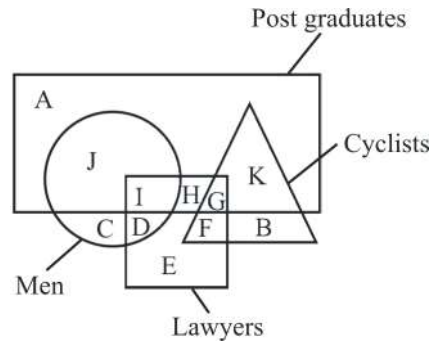
Ans : (a) Answer figure pattern in (a) can be combined to make the question figure.

44. In the following figure, square represents lawyers, triangle represents cyclists, circle represents men and rectangle represents post-graduates. Which set of letters represents men who are not cyclists?

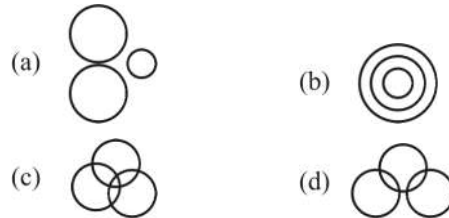


- (a) FGBK (b) CDIJ
(c) JCKB (d) JIHG

Ans : (b) The set of letter C, D, I and J are represents men who are not cyclists.

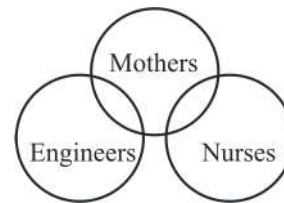


45. Which of the following Venn diagrams represents the relationship between Mothers, Nurses and Engineers?

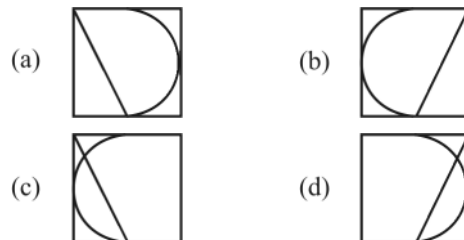
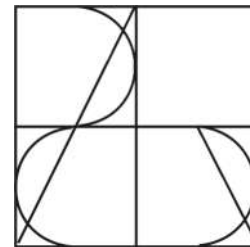


Ans : (d)

- A nurse may be a mother
- A engineer is also may be a mother.

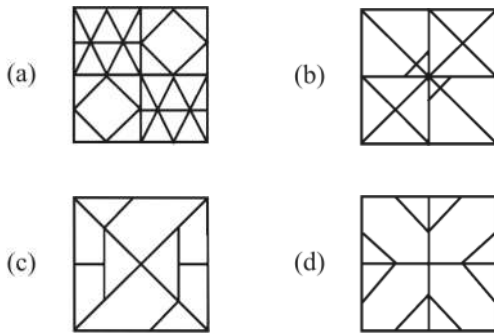
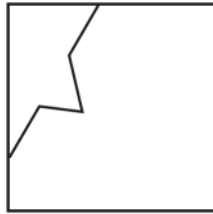


46. Which answer figure will complete the pattern in the question figure?



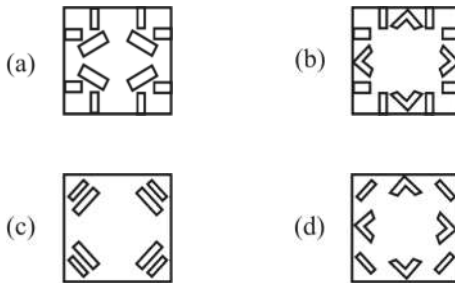
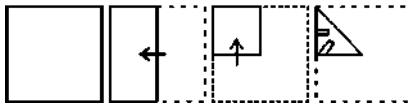
Ans : (c) The answer figure of option (c) will complete the pattern in the question figure.

47. From the given answer figures, select the one in which the question figure is hidden/embedded.



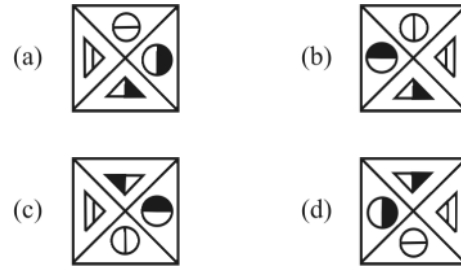
Ans : (a) The question figure is embedded/hidden in the answer figure of option (a).

48. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.



Ans : (b) According to the question when a piece of paper is folded and punched and the open it will appear as like answer figure in option (b).

49. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?



Ans : (b) If a mirror is placed on the line MN, then the answer figures of option (b) is the right image of the given figure.

50. A word is represented by only set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example 'K' can be represented by 32, 01 etc and 'R' can be represented by 79, 99 etc. Similarly, you have to identify the set for the word 'GLUE'.

Matrix-I					
	0	1	2	3	4
0	F	K	D	A	C
1	H	D	A	I	H
2	L	A	L	G	F
3	G	H	K	D	L
4	E	E	C	M	K

Matrix-II					
	5	6	7	8	9
5	X	N	U	O	Q
6	V	X	P	Z	X
7	P	N	N	X	R
8	X	S	Q	X	V
9	U	O	S	Z	R

- (a) 30, 33, 78, 43 (b) 21, 67, 98, 32
(c) 23, 34, 57, 40 (d) 33, 87, 12, 67

Ans : (c) GLUE

- From matrix I, G can be coded as

- (a) 30 33 78 43
G DX M -Wrong
(b) 21 67 98 32
A P Z K - Wrong
(c) 23 34 57 40
G L U E - Right
(d) 33 87 12 67
D Q A P - Wrong

SSC Junior Engineer Online Exam 2018

CPWD/CWC/MES

CIVIL Engineering

Time : 10-15 am]

[Exam Date : 23 January, 2018

REASONING

1. In the following question, select the related word pair from the given alternatives.

Red : Colour :: ? : ?

- (a) Sun : Heat (b) Earth : Planet
(c) Land : Solid (d) Water : Drink

Ans : (b) Just as the Red is the type of colour in the same way Earth is the type of planet.

2. In the following question, select the related word pair from given alternatives.

Square : Four :: ? : ?

- (a) Rectangle : Five (b) Hexagon : Seven
(c) Rhombus : Six (d) Triangle : Three

Ans : (d) Just as the square is made up of four lines in the same way a triangle is made up of three lines.

3. In the following question, select the related word from the given alternatives.

Forest : Trees :: Book : ?

- (a) Pages (b) Bind
(c) Writer (d) Pen

Ans : (a) Just as the trees in related to forest in the same way pages are related to book

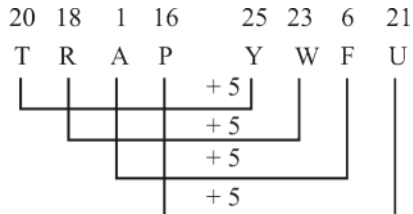
4. In the following question, select the related letters from the given alternative.

TRAP : YWFU :: FROG : ?

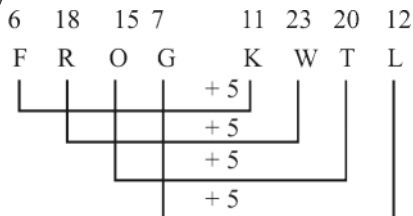
- (a) KHLG (b) KWTL
(c) WKLH (d) FGHL

Ans : (b)

Just As



Similarly



So ? ⇒ KWTL

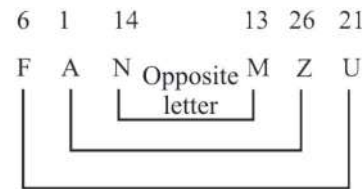
5. In the following question, select the related letters from the given alternatives.

FAN : MZU :: LIP : ?

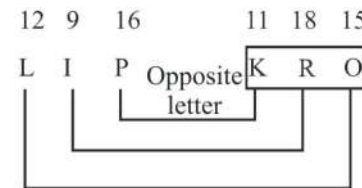
- (a) FGA (b) KRO
(c) ANP (d) TSQ

Ans : (b)

Just As



Similarly



So ? ⇒ KRO

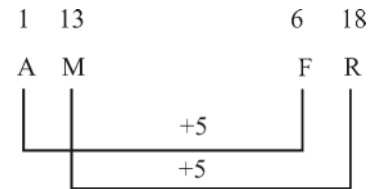
6. In the following question, select the related letters from the given alternatives.

AM : FR :: LQ : ?

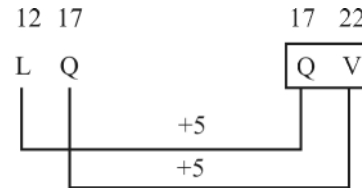
- (a) HQ (b) NP
(c) QV (d) LS

Ans : (c)

Just As



Similarly



So ? ⇒ QV

7. In the following question, select the related number from the given alternatives.

46 : 24 :: 54 : ?

- (a) 30 (b) 24
(c) 20 (d) 36

Ans : (c)

Just As
 $4 \times 6 = 24$
Similarly
 $5 \times 4 = 20$
So $? \Rightarrow 20$

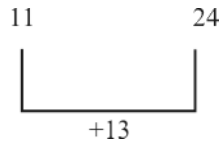
8. In the following question, select the related number from the given alternatives.

11 : 24 :: 23 : ?

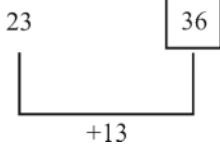
- (a) 42 (b) 36
(c) 54 (d) 58

Ans : (b)

Just As



Similarly



So $? \Rightarrow 36$

9. In the following question, select the related number from the given alternatives.

5 : 15 :: 7 : ?

- (a) 28 (b) 21
(c) 37 (d) 25

Ans : (b)

Just As

$$5 \times 3 = 15$$

Similarly

$$7 \times 3 = 21$$

So $? \Rightarrow 21$

10. In the following question, select the odd word pair from the given alternatives.

- (a) Pen – Write
(b) Ball – Play
(c) Food – Eat
(d) Pencil – Stationery

Ans : (d) The pen is used to write, ball is used to play and the food is used to eat in the same way pencil is used to write anything. But in the given alternatives pencil is equal to stationary which is wrong.

11. In the following question, select the odd word from the given alternatives.

- (a) Road (b) Truck
(c) Car (d) Scooter

Ans : (a) Car, Truck and Scooter all are vehicle which are move on the road. So, road is different from the given alternatives.

12. In the following question, select the odd word from the given alternatives.

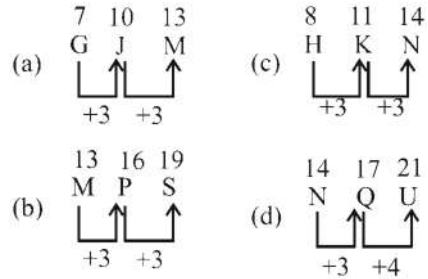
- (a) Rice (b) Wheat
(c) Maize (d) Crop

Ans : (d) The Rice, Wheat and maize are the type of crop. So, crop is odd word from the given alternatives.

13. In the following question, select the odd letters from the given alternatives.

- (a) GJM (b) HKN
(c) MPS (d) NQU

Ans : (d)

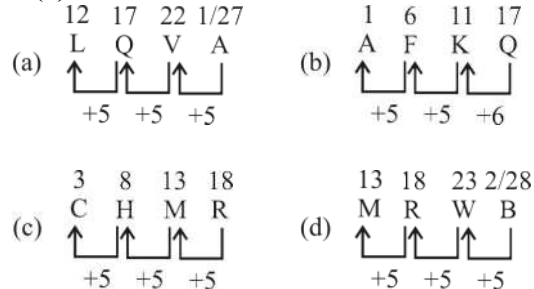


So, the letter NQU is the odd from the given alternatives.

14. In the following question, select the odd letters from the given alternatives.

- (a) LQVA (b) AFKQ
(c) CHMR (d) MRWB

Ans : (b)

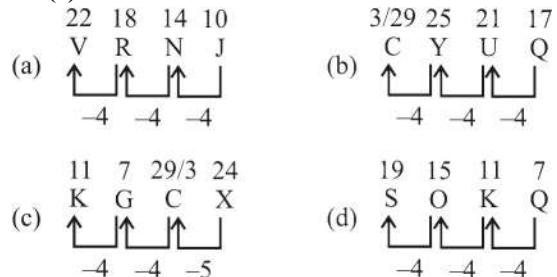


So, the latter AFKQ is odd from the given alternatives.

15. In the following question, select the odd letters from the given alternatives.

- (a) VRNJ (b) CYUQ
(c) KGCX (d) SOKQ

Ans : (c)



So, the latter KGCX is odd from the given alternatives.

16. In the following question, select the odd number from the given alternatives.

- (a) 2 – 12 (b) 5 – 28
(c) 4 – 24 (d) 3 – 18

Ans : (b) In all the given alternative except the option (b) 5–25. The second number is divisible by the first number.

So, the number 5–28 is odd from the given alternatives

17. In the following question, select the odd number from the given alternatives.

- (a) 11 – 13 (b) 13 – 17
(c) 17 – 19 (d) 11 – 15

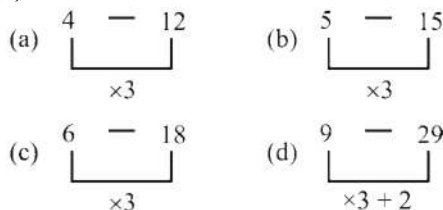
Ans : (d) In all the given alternative group the all number is a prime number expect the option (d) in which 15 is not a prime number

So, the number pair 11–15 is different from the given alternatives.

18. In the following question, select the odd number pair from the given alternatives.

- (a) 4 – 12 (b) 5 – 15
(c) 6 – 18 (d) 9 – 29

Ans : (d)



So, the number pair 9–29 is odd from given alternatives.

19. Arrange the given words in the sequence in which they occur in the dictionary.

1. Series 2. Singing
3. Secure 4. Sickle
5. Secured

- (a) 35142 (b) 53142
(c) 35124 (d) 53124

Ans:(a) The sequence of words according to dictionary.

- Secure
- Secured
- Series
- Sickle
- Singing

So, option (a) 35142 is the correct sequence

20. Arrange the given words in the sequence in which they occur in the dictionary.

1. Drive 2. Drown
3. Drain 4. Drink
5. Drama

- (a) 35421 (b) 35412
(c) 35214 (d) 35241

Ans: (b) The sequence of the words according to dictionary.

- Drain
- Drama
- Drink
- Drive
- Drown

So, the option (b) 35412 is the correct sequence.

21. Arrange the given words in the sequence in which they occur in the dictionary.

1. Price 2. Prize
3. Police 4. Paint
5. Prawn

- (a) 45123 (b) 45213
(c) 43521 (d) 43512

Ans : (d) The arrangement of the words according to the dictionary are–

- Paint
- Police
- Prawn
- Price
- Prize

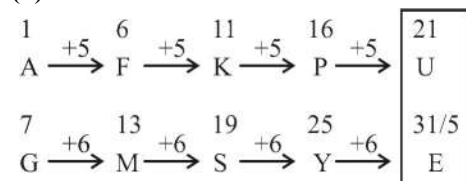
So, the option (d) is the correct sequence.

22. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

AG, FM, KS, PY, ?

- (a) RM (b) UE
(c) JQ (d) YA

Ans : (b)



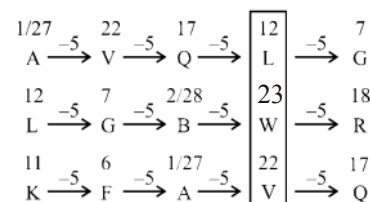
So, $[\Rightarrow UE]$

23. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

ALK, VGF, QBA, ?, GRQ

- (a) KST (b) ARP
(c) CXD (d) LWV

Ans : (d)



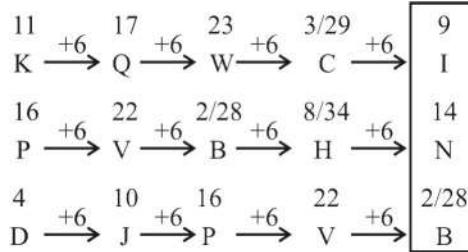
So, $[\Rightarrow LWV]$

24. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

KPD, QVJ, WBP, CHV, ?

- (a) INB (b) GXF
(c) ICM (d) ZDQ

Ans : (a)



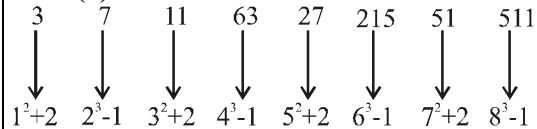
So, $? \Rightarrow$ INB

25. In the following question, select the missing number from the given alternatives.

3, 7, 11, 63, 27, 215, ?, ?

- (a) 47, 513 (b) 51, 511
(c) 51, 513 (d) 47, 511

Ans : (b)



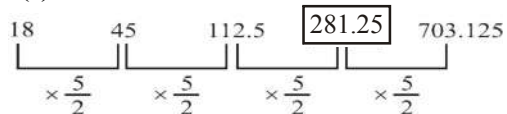
So, $? \Rightarrow$ 51, 511

26. In the following question, select the missing number from the given alternatives.

18, 45, 112.5, ?, 703.125

- (a) 217.5 (b) 262.25
(c) 281.25 (d) 273.75

Ans : (c)



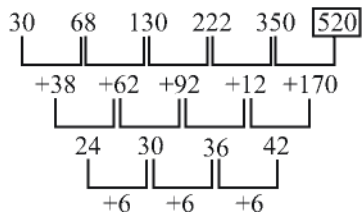
So, $? \Rightarrow$ 281.25

27. In the following question, select the missing number from the given alternatives.

30, 68, 130, 222, 350, ?

- (a) 504 (b) 520
(c) 476 (d) 448

Ans : (b)



So, $? =$ 520

28. Seg CD is shorter than Seg MN, Seg MN is shorter than Seg TR, Seg AB is shorter than Seg CD and Seg CD and Seg MN is shorter than Seg. PQ. Which segment is the shortest?

- (a) CD (b) MN
(c) PQ (d) AB

Ans : (d)

According to given question-

$$CD < MN < TR \quad \dots (i)$$

$$AB < CD \quad \dots (ii)$$

$$MN < PQ \quad \dots (iii)$$

By solving the equation (i), (ii) and (iii) we get-

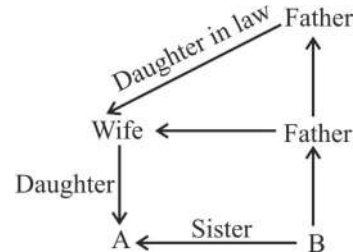
$$AB < CD < MN < TR/PQ$$

So, the AB is the shortest segment

29. A is B's father's father's daughter-in-law's daughter. If B's father has no brother then how is A related to B?

- (a) grand-daughter (b) daughter
(c) mother (d) sister

Ans : (d)



So, A is sister of B.

30. From the given alternative words select the word which cannot be formed using the letters of the given word.

RECUPERATE

- (a) acute (b) trace
(c) price (d) erupt

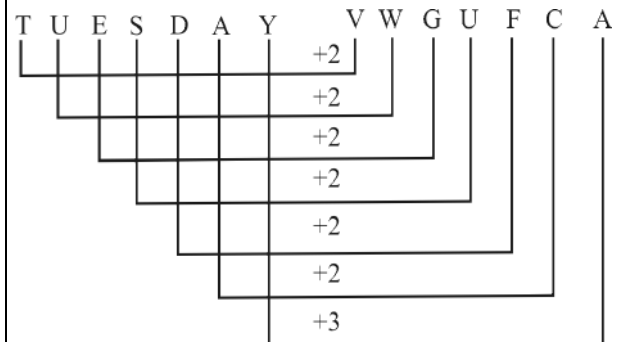
Ans : (c) The word 'Price' cannot be formed by using the letters of RECUPERATE because of the latter. I is not present in the given word.

31. If TUESDAY is coded as VWGUFGCA, then how will COW be coded as?

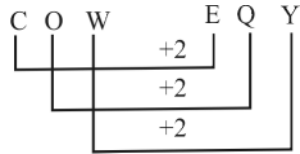
- (a) EQY (b) XLD
(c) BNV (d) DPX

Ans : (a)

Just as



Similarly,



So $? \Rightarrow EQY$

32. In a certain code language, 2369 means 'master class is fun', 9527 means 'act is class apart' and 1349 means 'we have fun class'. Find the code for 'fun'.

- (a) 2 (b) 6
(c) 3 (d) 9

Ans : (c)

2 (3) 6 (9) Master class is fun

(9) 5 2 7 Act is class apart

1 (3) 4 (9) We have fun class

So $\text{fun} = 3$

33. In a certain code language, '+' represents '-', '-' represents 'x', 'x' represents '÷' and represents '+'. Find out the answer to the following question.

$$16 - 25 \times 40 \div 60 + 15 = ?$$

- (a) 14 (b) 72
(c) 55 (d) 63

Ans : (c) $+ = -, - = \times, \times = \div, \div = +$

16 - 25 × 40 ÷ 60 + 15Equation
According to equation by changing the mathematical expression and solving the equation

$$16 \times 25 \div 40 + 60 - 15$$

$$16 \times \frac{25}{40} + 60 - 15$$

$$10 + 60 - 15$$

$$70 - 15$$

$$55$$

So $? \Rightarrow 55$

34. If $72 \$ 20 = 46$ and $1 \$ 27 = 14$ then find the value of

- (a) 34 (b) 54
(c) 27 (d) 17

Ans : (c) $72 \$ 20 = 46, 72 + 20 = 92, 92 \div 2 = 46$

$$1 \$ 27 = 14, 1 + 27 = 28, 28 \div 2 = 14$$

$$10 \$ 44, 10 + 44 = 54, 54 \div 2 = 27$$

35. If $A \$ B$ means A is son of B, $A \# B$ means A is brother of B and If $A * B$ means A is father of B, then what does $Q \# Q \$ R * S$ mean?

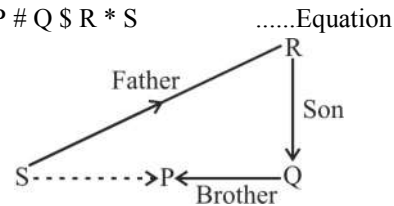
- (a) P is father of S
(b) P is father's father of S
(c) P is brother of S
(d) P is son of S

Ans : (c) $A \$ B = A$, is a son of B

$A \# B = A$, is brother of B

$A * B = A$, is father of B

$P \# Q \$ R * S$



So, P is brother of S.

36. Select the missing number from the given responses.

7	4	2
6	?	5
1	-6	-3

- (a) 2 (b) 11
(c) 1 (d) 10

Ans : (d)

From the first column $7 - 6 = 1$

From the second column $4 - \boxed{10} = -6$

From the third column $2 - 5 = -3$

So, the missing number is -6 from given alternatives.

37. Which of the following terms follows the trend of the given list?

AAAAAABA, AAAAAAAB, BAAAAAAA, ABAAAAAA, AABAAAAA,

- (a) AAAAAABA (b) AAABAAAA
(c) AAAABAAA (d) AAAAABAA

Ans : (b)

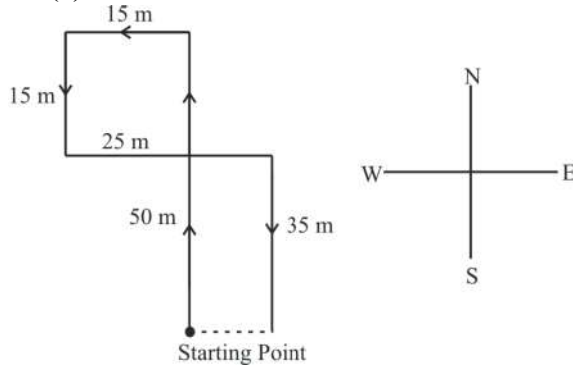
AAAAAABA → AAAAAAAB → BAAAAAAA → ABAAAAAA → AABAAAAA → AAABAAAA

The term AAABAAAA is follows the trend of the given list. The letter B is move one place from left to right in each next terms.

38. A Shopping mall worker loads his trolley and walks 50 m through an alley which is going North, then he turns to his left and walks 15 m, then he turns South and walks, another 15 m, then he turns East and walks 25 m and then he turns south and walks 35 m. Where is he now with reference to his starting position?

- (a) 10 m West (b) 10 m East
(c) 40 m East (d) 40 m West

Ans: (b)

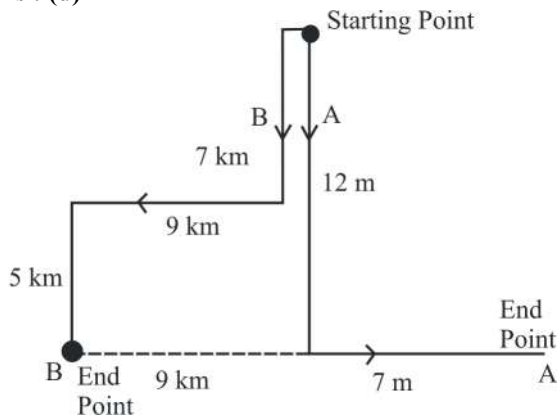


So, He is 10 m East with reference to his starting position.

39. Two battle tanks start from the same point. Tank A travels 12 km South, then turns to its left and travels 7 km. Tank B travels 7 km South, then turns West and travels 9 km, then turns to its left and travels 5 km. Where is tank A with respect to tank B?

- (a) 16 km West (b) 2 km East
(c) 2 km West (d) 16 km East

Ans : (d)



So, the tank A is 16 km East with respect to tank B.

40. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decided which of the given conclusions, if any, follows from the given statements.

- Statements I:** No cats are dogs
Statements II: Some cats are carnivores
Conclusion I: All dogs are carnivores
Conclusion II: All carnivores are dogs

- (a) Only conclusion I follows
(b) Only conclusion II follows
(c) Both conclusions I and II follow
(d) Neither conclusion I nor conclusion II follows

Ans:(d)



Conclusion I : All dogs are carnivores (×)

Conclusion II : All carnivores are dogs (×)

So, Neither conclusion I non, conclusion II is follows.

41. In the question three statements are given, followed by three conclusions, I, II and III. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decided which of the given conclusions, if any, follows from the given statements.

Statements I: No bronze is copper

Statements II: Some alloy is bronze

Statements III: Some zinc is alloy

Conclusion I: Some zinc is bronze

Conclusion II: Some copper is zinc

Conclusion III: Some alloy is copper

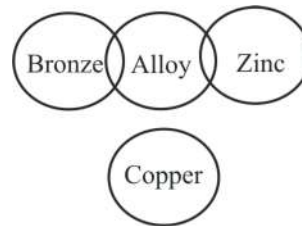
(a) Only conclusions I and II follow

(b) Only conclusions II and III follow

(c) All conclusions I, II and III follow

(d) None of the conclusions follow

Ans : (d)



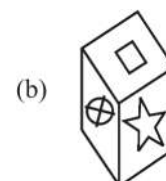
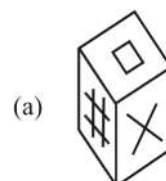
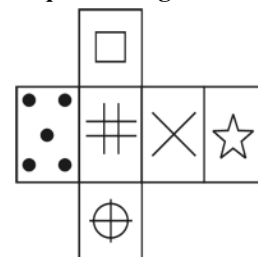
Conclusion I : Some Zinc is Bronze (×)

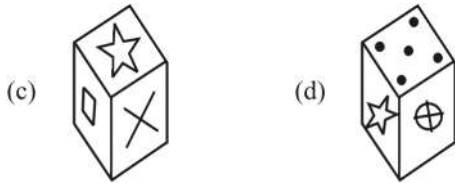
Conclusion II : Some Copper is Zinc (×)

Conclusion III : Some alloy is Copper (×)

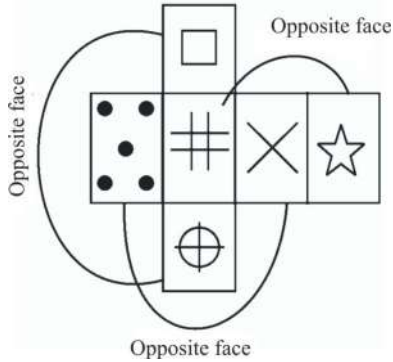
So, none of the conclusion follows.

42. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?





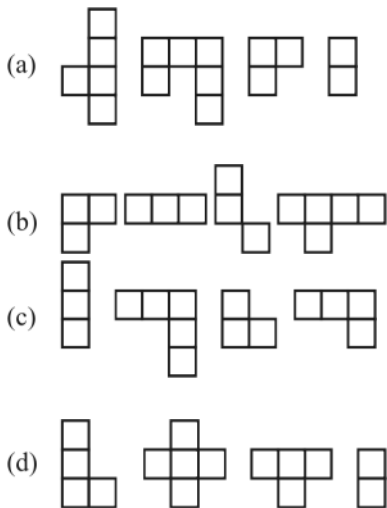
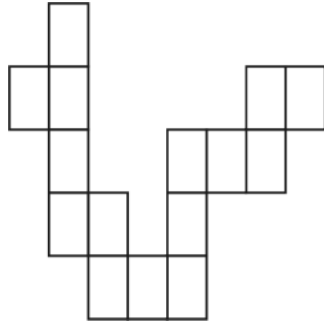
Ans : (b)



In the two dimensional figure the only one face of the dice is seen after open the dice face are not nearer to each other.

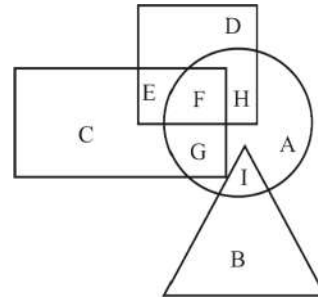
So, \oplus is opposite of \square , then in 2D-figure the opposite figure on face will not show
So, option (b) cannot be made

43. Which of the following answer figure patterns can be combined to make the question figure?



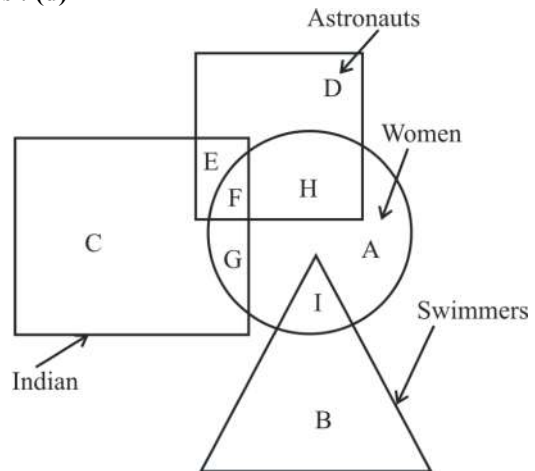
Ans : (b) The answer figure in option (b) is combined to make the question figure.

44. In the following figure, square represents astronauts, triangle represents swimmers, circle represents women and rectangle represents Indians. Which set of letters represents women who are either astronauts or swimmers?



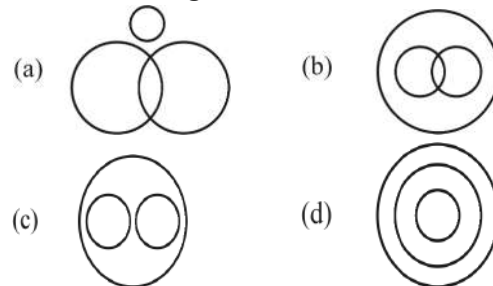
- (a) FHGI (b) DEIA
(c) IBFG (d) FHI

Ans : (d)

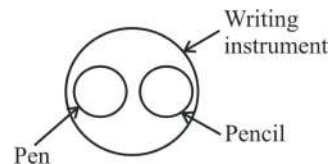


So, the set of letters FHI represents women. Who are either astronauts or swimmers.

45. Which of the following Venn diagrams represents the relationship between Pencils, Pen and Writing instruments?

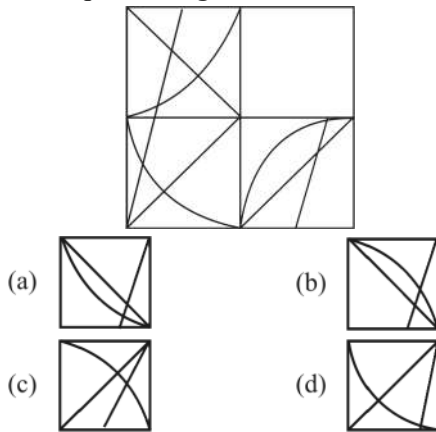


Ans : (c)



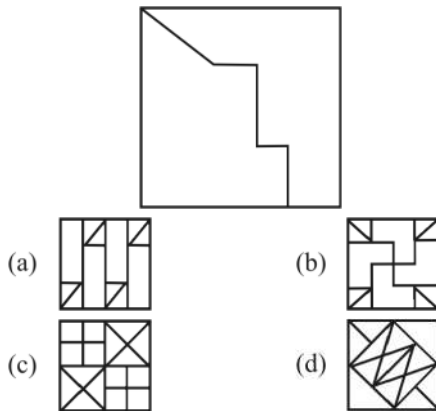
So, the pen and pencil are used as the writing instruments.

46. Which answer figure will complete the pattern in the question figure?



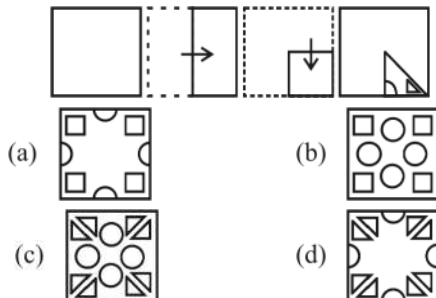
Ans : (b) The answer figure of option (b) will complete the pattern in question figure.

47. From the given answer figures, select the one in which the question figure is hidden/embedded.



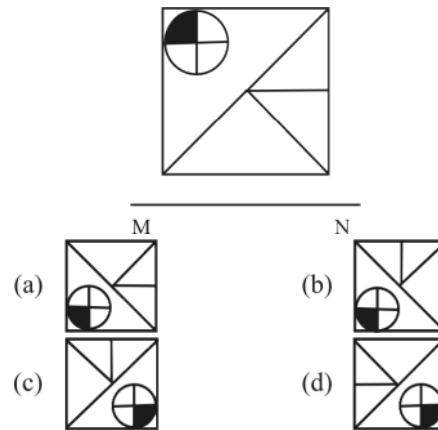
Ans : (b) The question figure is hidden in the answer figure of option (b)

48. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.



Ans : (d) According to question when a piece of paper is folded and punched as shown and then open it will appear as like the answer figure in option (d)

49. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?



Ans : (a) So, the option figure in (a) is the right image of the given figure

50. A word is represented by only set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example 'C' can be represented by 31, 43 etc and 'W' can be represented by 76, 89 etc. Similarly, you have to identify the set for the word 'SODA'.

Matrix-I					
	0	1	2	3	4
0	J	G	J	A	H
1	B	A	D	B	L
2	B	D	A	F	L
3	L	C	G	B	B
4	B	K	B	C	B

Matrix-II					
	5	6	7	8	9
5	S	Q	R	T	X
6	S	T	T	U	O
7	T	W	W	S	T
8	Q	R	O	T	W
9	Q	P	T	S	X

- (a) 65, 85, 21, 40 (b) 78, 87, 12, 03
 (c) 55, 67, 12, 33 (d) 98, 69, 22, 14

Ans : (b)

65	85	21	40	
S	Q	D	B	– Wrong
78	87	12	03	
S	O	D	A	– Right
55	67	12	33	
S	T	D	B	– Wrong
98	69	22	14	
S	O	A	L	– Wrong

So, SODA is represented by the set of number i.e. 78, 87, 12, 03

SSC Junior Engineer Online Exam 2018

CPWD/CWC/MES

Civil Engineering

Time : 3-15 pm]

[Exam Date : 23 January, 2018

REASONING

1. In the following question, select the related word pair from the given alternatives.

Heart : Organ :: ? : ?

- (a) Bus : Vehicle (b) Car : Road
(c) Ship : Sea (d) Train : Rail

Ans : (a) Just as heart is related to organ in the same way bus is related to vehicle.

2. In the following question, select the related word pair from the given alternatives.

Big : Small :: Solid : ?

- (a) Metal (b) Liquid
(c) Smoke (d) Cold

Ans : (b) Just as the opposite of big is small in the same way the opposite of solid is liquid.

3. In the following question, select the related word from the given alternatives.

Calculator : Calculations :: Scale : ?

- (a) Inches (b) Centimeters
(c) Measure (d) Steel

Ans : (c) Just as the calculator is used for calculations similarly the scale is used to measure the work.

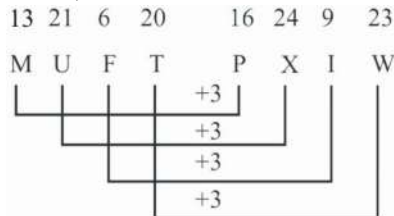
4. In the following question, select the related letter from the given alternatives.

MUFT : PXIW :: GONE : ?

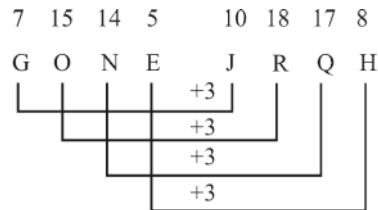
MUFT : PXIW :: GONE : ?

- (a) HMRL (b) JSPA
(c) JRQH (d) HQRH

Ans : (c) Just as,



Similarly,



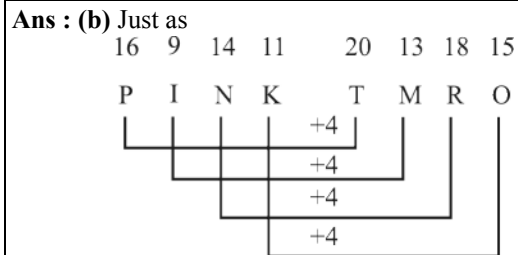
So ? ⇒ JRQH

5. In the following question, select the related letters from the given alternatives.

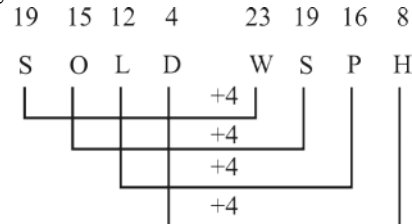
MUFT : PXIW :: GONE : ?

PINK : TMRO :: SOLD : ?

- (a) HQT X (b) WSPH
(c) HAQV (d) AQBH



Similarly



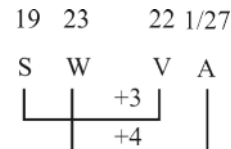
So ? ⇒ WSPH

6. In the following question, select the related letters from the given alternatives.

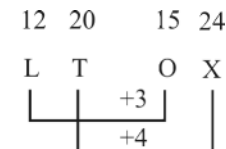
SW : VA :: LT : ?

- (a) NY (b) LA
(c) OX (d) OL

Ans : (c) Just as



Similarly



So ? ⇒ OX

7. In the following question, select the related number from the given alternatives.

19 : 363 :: ? : ?

- (a) 16 : 259 (b) 13 : 171
(c) 14 : 199 (d) 14 : 195

Ans : (b)
 Just as $(19)^2 + 2 \Rightarrow 361 + 2 = 363$
 Similarly $(13)^2 + 2 \Rightarrow 169 + 2 = 171$

8. In the following question, select the related number from the given alternatives.
42 : 105 :: 38 : ?
 (a) 111 (b) 135
 (c) 95 (d) 83

Ans : (c)
 Just as $42 \times \frac{5}{2} = 105$
 Similarly $38 \times \frac{5}{2} = 95$
 So $?\Rightarrow 95$

9. In the following question, select the related number from the given alternatives.
24 : 39 :: 49 : ?
 (a) 68 (b) 64
 (c) 69 (d) 79

Ans : (b)
 Just as

$$\begin{array}{ccc} 24 & & 39 \\ & \underbrace{\hspace{1.5cm}} & \\ & +15 & \end{array}$$
 Similarly

$$\begin{array}{ccc} 49 & & 64 \\ & \underbrace{\hspace{1.5cm}} & \\ & +15 & \end{array}$$
 So $?\Rightarrow 64$

10. In the following question, select the odd word from the given alternatives.
 (a) Liver (b) Intestine
 (c) Organ (d) Lungs

Ans : (c) The liver, Intestine and lungs are the organ of a body. So, organ is different from given alternatives.

11. In the following question, select the odd word from the given alternatives.
 (a) Black (b) Yellow
 (c) Rainbow (d) Pink

Ans : (c) Black, yellow and pink are the colour of rainbow. So, rainbow is different from the other given alternatives.

12. In the following question, select the odd word from the given alternatives.
 (a) Arteries (b) Veins
 (c) Hand (d) Bones

Ans : (c) The arteries, veins and bones are found in the hole body. Where as the hand is the organ of a body. So, hand is different form the given alternatives.

13. In the following question, select the odd letters from the given alternatives.
 (a) RLF (b) MGA
 (c) EYR (d) HBV

Ans: (c)

(a) $\begin{array}{ccc} 18 & 12 & 6 \\ R & L & F \\ \uparrow & \uparrow & \uparrow \\ & -6 & -6 \end{array}$

(b) $\begin{array}{ccc} 13 & 7 & 1 \\ M & G & A \\ \uparrow & \uparrow & \uparrow \\ & -6 & -6 \\ 8 & 2/28 & 22 \\ H & B & V \\ \uparrow & \uparrow & \uparrow \\ & -6 & -6 \end{array}$

(c) $\begin{array}{ccc} 31/5 & 25 & 18 \\ E & Y & R \\ \uparrow & \uparrow & \uparrow \\ & -6 & -7 \end{array}$

The odd word is EYR from the given alternatives.

14. In the following question, select the odd letters from the given alternatives.
 (a) IR (b) KP
 (c) GT (d) OV

Ans : (d) The letters IR, KP, and GT are reversed to each other where as OV is not reverse letters to each other. The L is opposite to O and E is opposite to V. Note- If the sum of numeric value of letter in English alphabet is 27, then these two letters are reversed to each other.

15. In the following question, select the odd letters from the given alternatives.
 (a) XTQMJ (b) FBYUR
 (c) GCZVS (d) TPMIE

Ans : (d)

(a) $\begin{array}{cccc} 24 & 20 & 17 & 13 & 10 \\ X & T & Q & M & J \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ & -4 & -3 & -4 & -3 \end{array}$

(b) $\begin{array}{cccc} 6 & 2 & 25 & 21 & 18 \\ F & B & Y & U & R \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ & -4 & -3 & -4 & -3 \end{array}$

(c) $\begin{array}{cccc} 7 & 3 & 26 & 22 & 19 \\ G & C & Z & V & S \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ & -4 & -3 & -4 & -3 \end{array}$

(d) $\begin{array}{cccc} 20 & 16 & 13 & 9 & 5 \\ T & P & M & I & E \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ & -4 & -3 & -4 & -4 \end{array}$

So, The TPMIE is the odd letters from the given alternatives.

16. In the following question, select the odd number from the given alternatives.
 (a) 4-21 (b) 7-54
 (c) 6-41 (d) 3-16

Ans : (d)
 (a) $(4)^2 + 5 \Rightarrow 16 + 5 = 21$
 (b) $(7)^2 + 5 \Rightarrow 49 + 5 = 54$
 (c) $(6)^2 + 5 \Rightarrow 36 + 5 = 41$
 (d) $3^2 + 5 \Rightarrow 9 + 5 \neq 16$
 The number 3-16 is the odd from the given alternatives.

17. In the following question, select the odd number pair from the given alternatives.

- (a) 11–17 (b) 23–31
(c) 43–59 (d) 41–47

Ans : (c) (a) $17 - 11 = 6$ (b) $31 - 23 = 8$
(c) $59 - 43 = 16$ (d) $47 - 41 = 6$

In the option (c) the difference between the number is 16 which is square of 4 where as given alternatives their difference is not a square of any number.

18. In the following question, select the odd number pair from the given alternatives.

- (a) 12–156 (b) 13–182
(c) 14–210 (d) 15–230

Ans : (d)

- (a) $(12)^2 + 12 \Rightarrow 144 + 12 = 156$
(b) $(13)^2 + 13 \Rightarrow 169 + 13 = 182$
(c) $(14)^2 + 14 \Rightarrow 196 + 14 = 210$
(d) $(15)^2 + 15 \Rightarrow 225 + 15 \neq 230$

The number pair 15–230 is odd from given alternative

19. Arrange the given words in the sequence in which they occur in the dictionary.

- (1) Shocking (2) Shiver
(3) Shelter (4) Shorten
(5) Shudder
(a) 23145 (b) 32145
(c) 14523 (d) 41523

Ans : (b) The sequence of words according to dictionary–

- Shelter
- Shiver
- Shocking
- Shorter
- Shudder

So, option (b) 32145 is the correct sequence.

20. According to dictionary, which of the following word will come at LAST position?

- (1) Operation (2) Orderly
(3) Openly (4) Opulent
(5) Oral
(a) Oral (b) Orderly
(c) Opulent (d) Operation

Ans : (b) Arrangement of words according to dictionary are–

- Openly
- Operation
- Opulent
- Oral
- Orderly – Last Position

So, the word 'Orderly' will come at last position.

21. From the given alternatives, according to dictionary, which word will come at THIRD position?

- (a) Passage (b) Pastime
(c) Patience (d) Pathetic

Ans: (d) Arrangement of words according to dictionary are–

- Passage
- Pastime
- Pathetic – 3rd position
- Patience

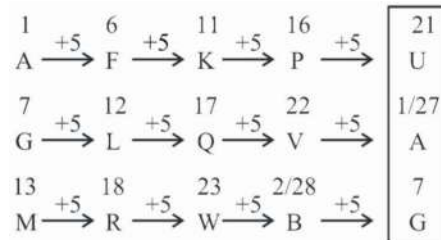
So, the word 'Pathetic' will come at third position.

22. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

AGM, FLR, KQW, PVB, ?

- (a) UAG (b) VLC
(c) CGN (d) PNO

Ans : (a)



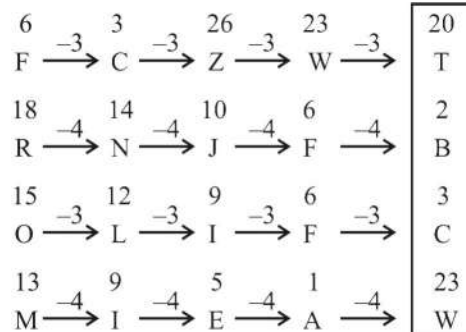
So, the UAG is the correct alternatives from the given ones that will complete the series.

23. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

FROM, CNLI, ZJIE, WFFA, ?

- (a) ACNG (b) TCCX
(c) TBCW (d) FRIP

Ans : (c)



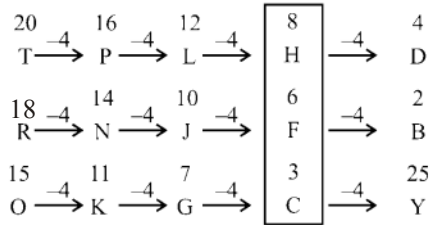
So, the TBCW is the ones that will complete the series.

24. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

TRO, PNK, LJG, ?, DBY

- (a) FBC (b) FNB
(c) FRN (d) HFC

Ans: (d)



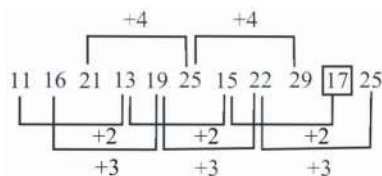
The term HFC is missing ones that will complete the series.

25. In the following question, select the missing number from the given series.

11, 16, 21, 13, 19, 25, 15, 22, 29, ?, 25

- (a) 18 (b) 17
(c) 19 (d) 21

Ans : (b)



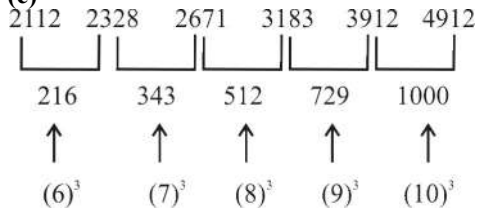
So, the missing number is 17 from the given series.

26. In the following question, select the missing number from the given series.

2112, 2328, 2671, 3183, ?, 4912

- (a) 3826 (b) 3742
(c) 3912 (d) 3992

Ans : (c)



So, the missing number is 3912 from the given alternatives

27. In the following question, select the missing number from the given series.

21, 22, 34, 5, 71, 180, 543, ?

- (a) 1864 (b) 2234
(c) 2336 (d) 1904

Ans : (d) 21, 22, 34, 5, 71, 180, 543, ?

Just as $21 \times 1 + 1 = 22$

$$22 \times 1.5 + 1.5 = 34.5$$

$$34.5 \times 2 + 2 = 71$$

$$71 \times 2.5 + 2.5 = 180$$

$$180 \times 3 + 3 = 543$$

Similarly $543 \times 3.5 + 3.5 = 1904$

So, the missing number is 1904 from the given series.

28. M is 2 year older than P, L is 2 years older than O, O's age is the average of the ages of L and N, P's age is the average of the ages of L and M and L's age is the average of P and O. Who is the youngest?

- (a) L (b) M (c) N (d) O

Ans: (c) According to question the arrangement are-

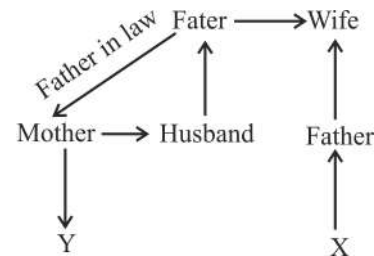
M
↑
P
↑
L
↑
O
↑
N

So, N is the youngest one.

29. X said to Y that your mother's father-in-law's wife is mother-in-law of my father. How are X and Y related?

- (a) X is sister's husband of Y
(b) X is child of Y's father's sister
(c) Y is father's brother of X
(d) Y is sister's husband of X

Ans : (b)



So, X is child of Y's father's sister.

30. From the given alternative words select the word which cannot be formed using the letters of the given word:

GEOGRAPHIC

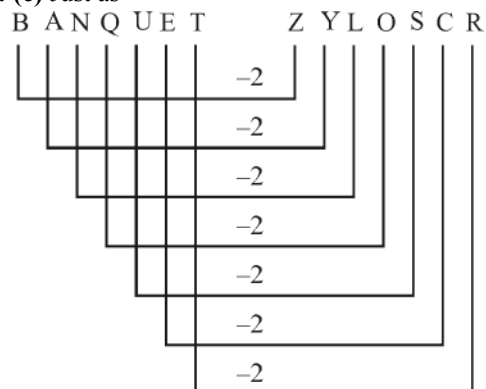
- (a) Cheap (b) rogue
(c) price (d) graph

Ans : (b) The rogue is the word. which cannot be formed by using the letters of GEOGRAPHIC because the letter U is not present in the given word

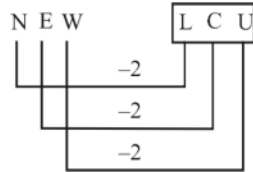
31. If BANQUET is coded as ZYLOSCR, then how will NEW be coded as?

- (a) MVD (b) MDV
(c) LCU (d) OFX

Ans : (c) Just as



Similarly,

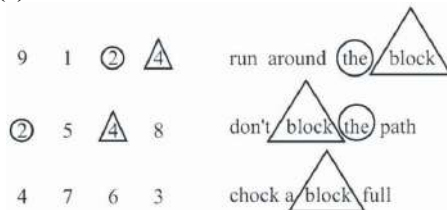


So, the NEW be coded as LCU

32. In a certain code language, 9124 means 'run around the block', 2548 means 'don't block the path' and 4763 means 'chock a block full'. Find the code for 'the'.

- (a) 1 (b) 9 (c) 2 (d) 4

Ans : (c)



So the = 2

33. In a certain code language, '+' represents '-', '-' represents 'x', 'x' represents '÷' and '÷' represents '+'. Find out the answer to the following question.

$$90 \times 10 \div 25 - 5 + 50 = ?$$

- (a) 81 (b) 84 (c) 100 (d) 48

Ans : (b) $+ = -, - = \times, \times = \div, \div = +$

$$90 \times 10 \div 25 - 5 + 50 \quad \dots \text{Equation}$$

According to question by changing the mathematical expression and solving the equation.

$$90 \div 10 + 25 \times 5 - 50$$

$$9 + 125 - 50$$

$$134 - 50 = 84$$

34. If $11 @ 7 = 2$, $18 @ 0 = 9$ and $22 @ 20 = 1$, then find the value of $16 @ 10 = ?$

- (a) 6 (b) 160 (c) 26 (d) 3

Ans : (d)

Just as $11 @ 7 = 2$

$$-7 = \frac{4}{2} = 2$$

$$8 - 0 = 18$$

$$\frac{18}{2} = 9$$

Similarly $16 @ 10 = ?$

$$16 - 10 = 6$$

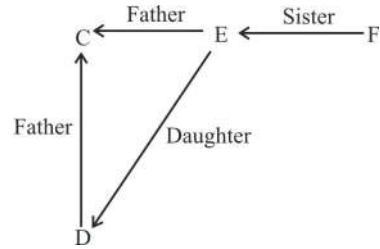
$$\frac{6}{2} = 3$$

So, the value of $16 @ 10 = 3$

35. If $A * B$ means A is father of B, $A + B$ means A is sister of B and If $A \% B$ means A is daughter of B, then what does $C * D \% E + F$ mean?

- (a) C is F's husband
(b) C is F's wife's brother
(c) C is father of F
(d) C is F's sister's husband

Ans : (d) $A * B \rightarrow A$ is father of B
 $A + B \rightarrow A$ is sister of B
 $A \% B \rightarrow A$ is daughter of B
 $C * D \% E + F$ Equation



So, C is F's sister's husband

36. Select the missing number from the given responses.

9	10	2
8	?	8
17	19	10

- (a) 1 (b) 9
(c) -1 (d) -9

Ans : (b) From the first column

$$8 + 9 = 17$$

From the second column

$$10 + \boxed{?} = 19$$

$$? \Rightarrow 19 - 10$$

$$\boxed{? = 9}$$

From the third column

$$2 + 8 = 10$$

So, the missing number is 9 from the given responses

37. Which of the following terms follows the trend of the given list?

CABABABAB, ACBABABAB, ABCABABAB, ABACBABAB, ABABCABAB,

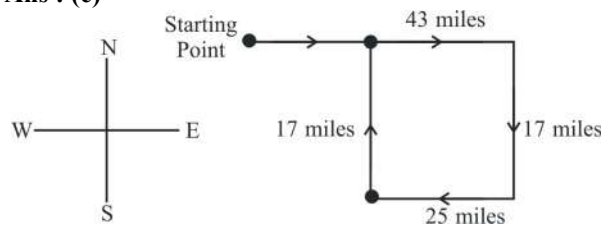
- (a) ABABABACB (b) ABABABCAB
(c) ABABACBAB (d) ABABABABC

Ans : (c) The term ABABACBAB is follows the trend of the given list. The letter C move one place from left to right in each next terms.

38. A ship starts from the port and sails 43 miles East, then it turns South and sails 17 miles, then it turns West and sails 25 miles, then it turns to its right and sails 17 miles. Where is it with respect to the port from where it started?

- (a) 18 miles West (b) 68 miles East
(c) 18 miles East (d) 68 miles West

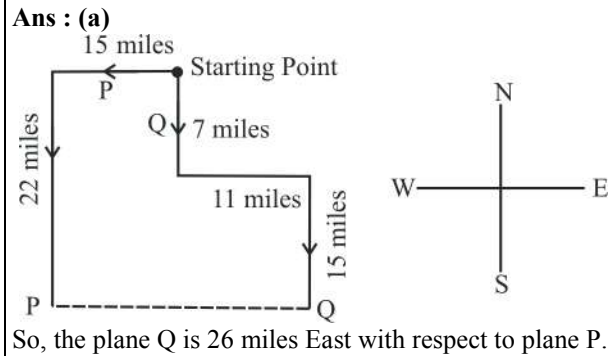
Ans : (c)



So, It is 18 miles East with respect to the part from where it started.

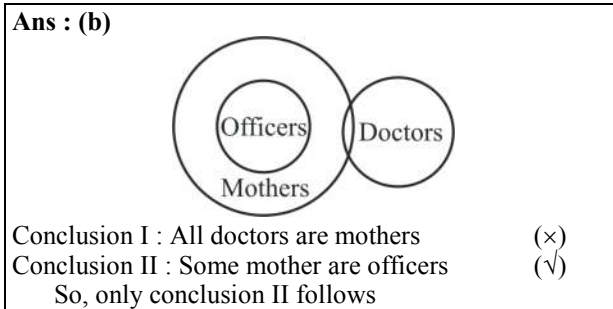
39. Two planes start from the same strip. Plane P flies 15 miles West, then turns left flies 22 miles and lands. In the meanwhile plane Q flies 7 miles South, then flies 11 miles East, then turns to its right, flies 15 miles and lands. Where is plane Q with respect to plane P?

- (a) 26 miles East (b) 26 miles West
(c) 4 miles East (d) 4 miles West



40. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have facts. You have to decide which of the given conclusions, if any, follows from the given statements.

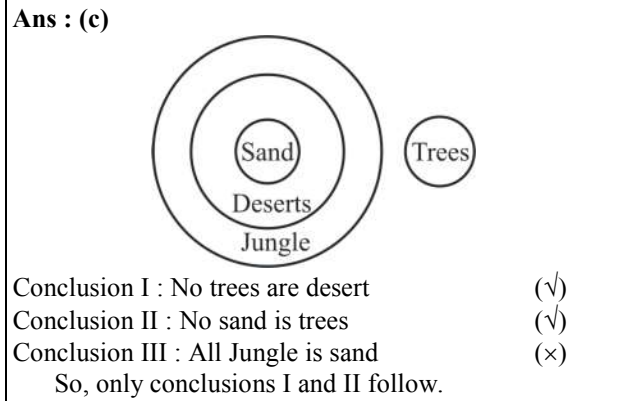
- Statements I:** All officers are mothers
Statements II: Some doctors are mothers
Conclusion I: All doctors are mothers
Conclusion II: Some mothers are officers
(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Both conclusions I and II follow
(d) Neither conclusion I nor conclusion II follows



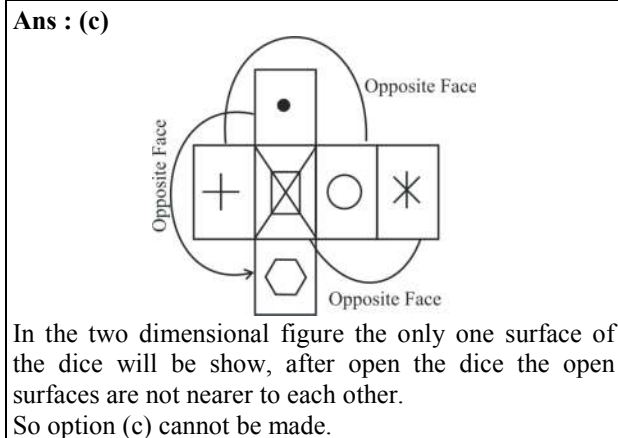
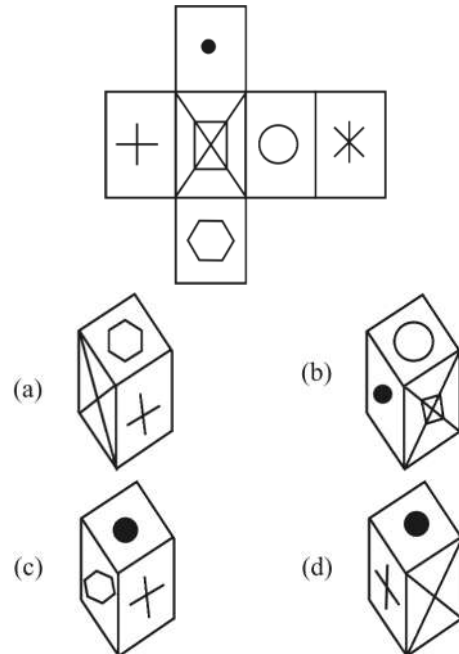
41. In the question three statements are given, followed by three conclusions, I, II and III. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

- Statements I:** All deserts is jungle
Statements II: All sand is desert
Statements III: No tree are jungle
Conclusion I: No trees are desert
Conclusion II: No sand is trees

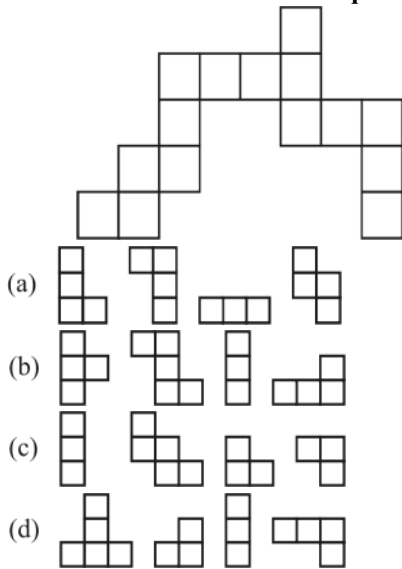
- Conclusion III:** All jungle is sand
(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Only conclusions I and II follow
(d) None of the conclusions follow



42. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?

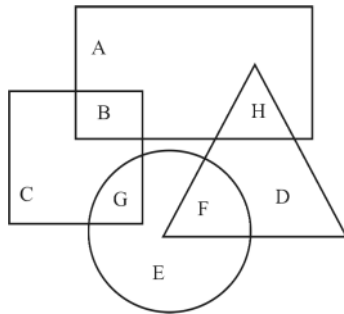


43. Which of the following answer figure patterns can be combined to make the question figure?



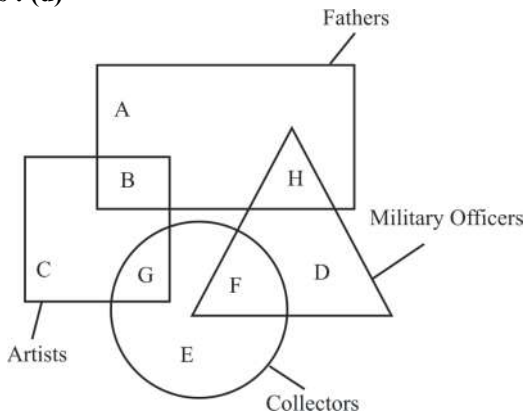
Ans : (a) The answer figure of option (a) will complete the pattern in the question figure

44. In the following figure, square represents Artists, triangle represents Military officers, circle represents collectors and rectangle represents Fathers. Which set of letters represents collectors who are either military officers or fathers?



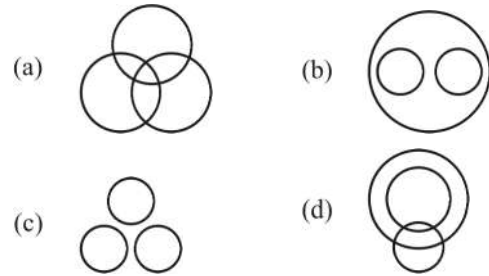
- (a) H (b) B
(c) G (d) F

Ans : (d)



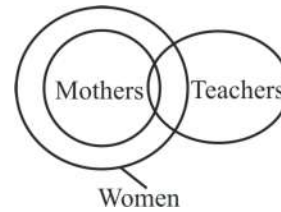
The set of letters 'F' represents collectors who are either military officers or fathers.

45. Which of the following Venn diagrams represents the relationship between Women, Mothers and Teachers?



Ans

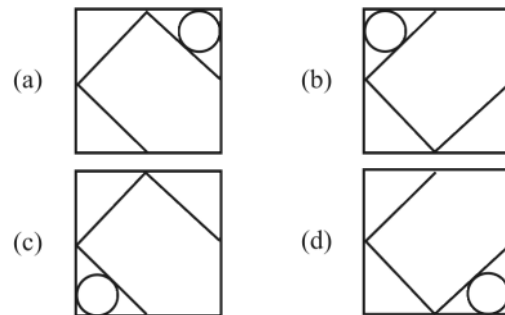
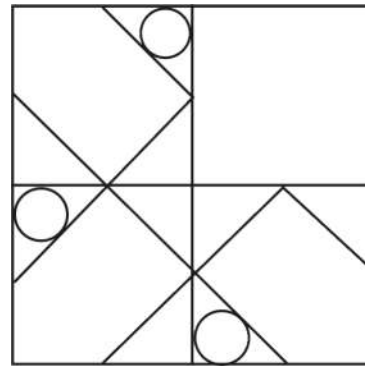
: (d)



In given venn diagrams option (d) represents the relationship between women, mothers and teachers

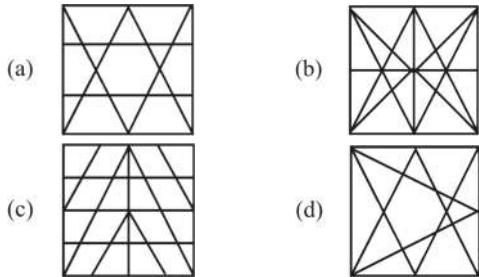
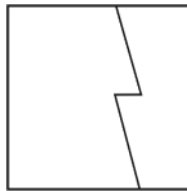
- Women may be a mothers
- Women may be a teachers

46. Which answer figure will complete the pattern in the question figure?



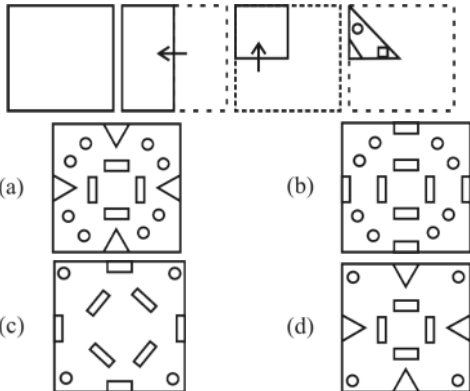
Ans : (d) The answer figure of option (d) will complete the pattern in the question figure.

47. From the given answer figures, select the one in which the question figure is hidden/embedded.



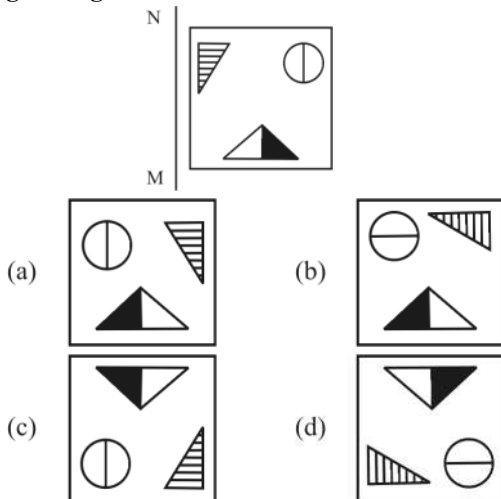
Ans : (c) The question figure is hidden/embedded in the answer figure (c)

48. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.



Ans : (a) According to question when a piece of paper is folded and punched, and then open it will appear as like the answer figure in option (a)

49. If mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?



Ans: (a) In a question it will given when a mirror is placed on the line MN. So, the option figure (a) is the right image of the given figure

50. A word is represented by only set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example 'H' can be represented by 21, 43 etc and 'R' can be represented by 96, 87 etc. Similarly, you have to identify the set for the word 'POEM'.

Matrix-I					
	0	1	2	3	4
0	A	A	L	A	B
1	C	A	F	B	C
2	J	H	F	B	K
3	F	J	A	M	L
4	I	B	B	N	E

Matrix-II					
	5	6	7	8	9
5	Q	U	Y	N	Z
6	N	R	V	O	Z
7	P	N	Q	W	Q
8	X	N	R	V	V
9	X	R	V	T	O

- (a) 76, 69, 01, 33 (b) 56, 88, 23, 41
(c) 89, 56, 44, 02 (d) 75, 68, 44, 33

Ans : (d)

(a)	76	69	01	33	
	N	Z	A	M	- Wrong
(b)	56	88	23	41	
	U	V	B	B	- Wrong
(c)	89	56	44	02	
	V	U	E	L	- Wrong
(d)	75	68	44	33	
	P	O	E	M	- Right

So, POEM is represent by the set of number 75, 68, 44, 33.

SSC Junior Engineer Online Exam 2018 CPWD/CWC/MES CIVIL Engineering

Time : 10-15 am]

[Exam Date : 24 January, 2018

REASONING

1. In the following question, select the related word pair from the given alternatives.

Tailor : Scissor :: ? ?

- (a) Writer : Pen
(b) Driver : Drives
(c) Gardener : Grow
(d) Carpenter : Table

Ans : (a) As Tailor uses the scissor for the purpose of cutting the exact size of cloth. In the same way writer uses pen for writings.

2. In the following question, select the related word from the given alternatives.

Horse : Mare :: Peacock : ?

- (a) Peahen (b) Cub
(c) Bull (d) Sparrow

Ans : (a) Mare is female or feminine gender of Horse. In the same way Peahen is feminine gender of peacock.

3. In the following question, select the related word pair from the given alternatives.

Bottle : Water :: ? : ?

- (a) Plate : Spoon
(b) Write : Hand
(c) Pen : ink
(d) Book : Print

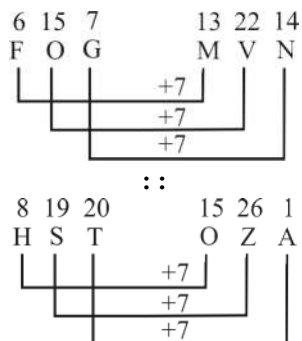
Ans : (c) Bottle is a container in which water is contained. While ink is contained in the pen.

4. In the following question, select the related letter pair from the given alternatives.

FOG : MVN :: ? : ?

- (a) HST : OZA (b) FKG : PBM
(c) HST : PCN (d) FKG : MCA

Ans : (a)

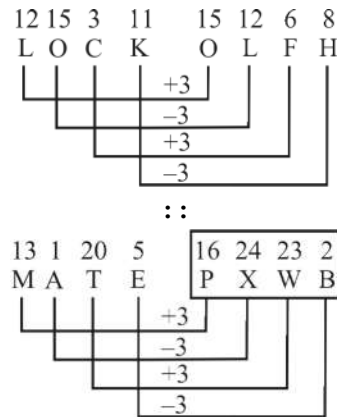


5. In the following question, select the related letters from the given alternatives.

LOCK : OLFH :: MATE : ?

- (a) QYAN (b) LGHT
(c) QRXZ (d) PXWB

Ans : (d)

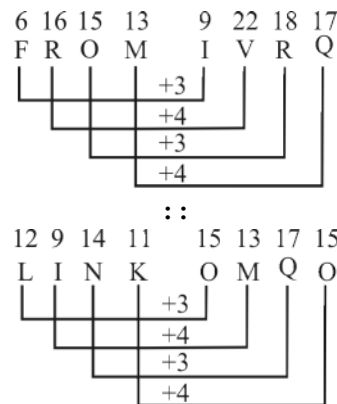


6. In the following question, select the related letters from the given alternatives.

FROM : IVRQ :: LINK : ?

- (a) PNRP (b) CNPC
(c) OMQO (d) CLPQ

Ans : (c)



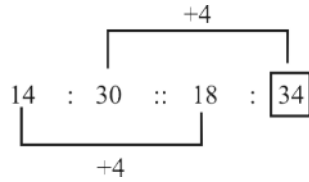
? ⇒ OMQO

7. In the following question, select the related number from the given alternatives.

14 : 30 :: 18 : ?

- (a) 47 (b) 34
(c) 53 (d) 48

Ans : (b)



? ⇒ 34

8. In the following question, select the related number from the given alternatives.

4 : 64 :: 6 : ?

- (a) 128
- (b) 216
- (c) 139
- (d) 143

Ans : (b)

(4)³ → 64

(6)³ → 216

4 : 64 :: 6 : 216

? ⇒ 216

9. In the following question, select the related number from the given alternatives.

14 : 197 :: 18 : ?

- (a) 494
- (b) 393
- (c) 325
- (d) 262

Ans : (c)

(14)² + 1

196 + 1 = 197

(18)² + 1

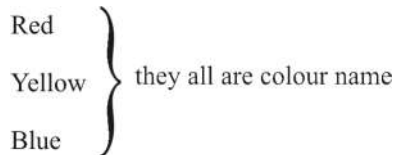
324 + 1 = 324

14 : 197 :: 18 : 325

10. In the following question, select the odd word from the given alternatives.

- (a) Red
- (b) Yellow
- (c) Blue
- (d) Colour

Ans : (d)

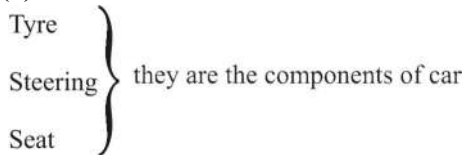


Colour → It is not any type of colour.

11. In the following question, select the odd word from the given alternatives.

- (a) Tyre
- (b) Car
- (c) Steering
- (d) Seat

Ans : (b)

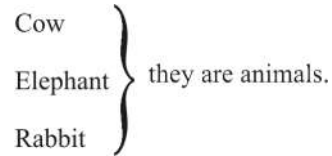


So, Car is different from the given alternatives.

12. In the following question, select the odd word from the given alternatives.

- (a) Cow
- (b) Elephant
- (c) Rabbit
- (d) Grass

Ans : (d)

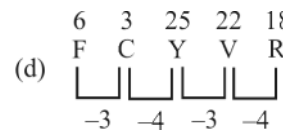
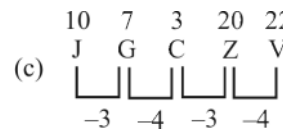
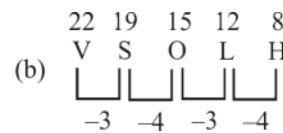
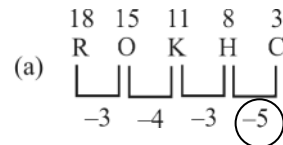


Grass → it is a type of plant.

13. In the following question, select the odd letters from the given alternatives.

- (a) ROKHC
- (b) VSOLH
- (c) JGCZV
- (d) FCYVR

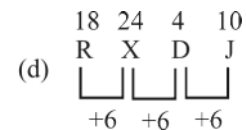
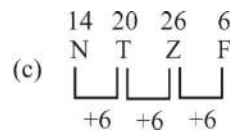
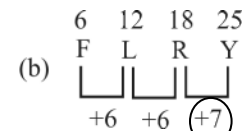
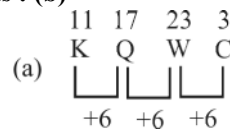
Ans : (a)



14. In the following question, select the odd letters from the given alternatives.

- (a) KQWC
- (b) FLRY
- (c) NTZF
- (d) RXDJ

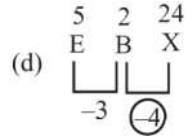
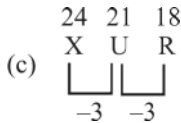
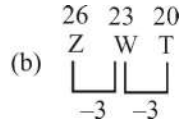
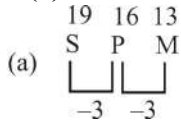
Ans : (b)



15. In the following question, select the odd letters from the given alternatives.

- (a) SPM
- (b) ZWT
- (c) XUR
- (d) EBX

Ans : (d)



16. In the following question, select the odd letters from the given alternatives.

- (a) 11 - 13 (b) 31 - 37
(c) 43 - 47 (d) 61 - 69

Ans : (d)

$\left. \begin{matrix} 11 - 13 \\ 31 - 37 \\ 43 - 47 \\ 61 - 69 \end{matrix} \right\}$ Both are the prime numbers.
61 - 69 → 61 is prime number but 69 is not a prime number.

17. In the following question, select the odd number from the given alternatives.

- (a) 26 - 8 (b) 52 - 7
(c) 34 - 7 (d) 42 - 8

Ans : (d)

- (a) $26 \rightarrow 8 \Rightarrow 2 + 6 = 8$
(b) $52 \rightarrow 7 \Rightarrow 5 + 2 = 7$
(c) $34 \rightarrow 7 \Rightarrow 3 + 4 = 7$
(d) $42 \rightarrow 8$ But it should be 6

18. In the following question, select the odd number pair from the given alternatives.

- (a) 15 - 226 (b) 16 - 257
(c) 19 - 360 (d) 18 - 325

Ans : (c)

- (a) $15 - 226 \Rightarrow 15^2 + 1 = 225 + 1 = 226$
(b) $16 - 257 \Rightarrow 16^2 + 1 = 256 + 1 = 257$
(c) $19 - 360 \Rightarrow 19^2 + 1 = 361 + 1 \neq 360$
(d) $18 - 325 \Rightarrow 18^2 + 1 = 324 + 1 = 325$

19. Arrange the given words in the sequence in which they occur in the dictionary.

1. Detective 2. Deter
3. Detachment 4. Different
5. Dictate
(a) 13254 (b) 31254
(c) 21354 (d) 12354

Ans : (b) According to dictionary the arrangement of words are-

(3) Detachment → (1) Detective → (2) Deter → (5) Dictate → (4) Different

20. Arrange the given words in the sequence in which they occur in the dictionary.

1. Groan 2. Groove
3. Grose 4. Grope
5. Grippy
(a) 51243 (b) 15243
(c) 15342 (d) 51342

Ans : (a)

(5) Grippy → (1) Groan → (2) Groove → (4) Grope → (3) Grose

21. Arrange the given words in the sequence in which they occur in the dictionary.

1. Hurry 2. Hurdle
3. Hybrid 4. Hurtful
5. Hysteria
(a) 12435 (b) 21435
(c) 43125 (d) 34125

Ans : (b)

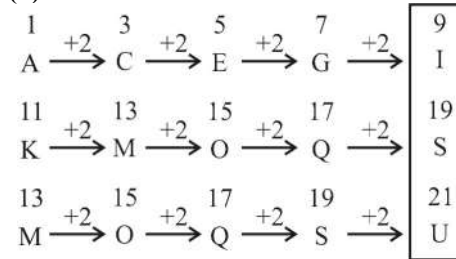
(2) Hurdle → (1) Hurry → (4) Hurtful → (3) Hybrid → (5) Hysteria

22. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

AKM, CMO, EOQ, GQS, ?

- (a) URV (b) ISU
(c) MLC (d) DFA

Ans : (b)



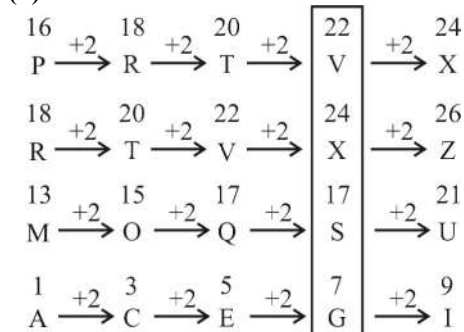
? ⇒ ISU

23. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

PRMA, RTOC, TVQE, ?, XZUI

- (a) QFMX (b) XRTM
(c) RMFQ (d) VXSG

Ans : (d)



? ⇒ VXSG

24. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

RIFT, ULIW, XOLZ, AROC, ?

- (a) FMCQ (b) LOFF
(c) DURF (d) LORF

Ans : (c)

18	+3	21	+3	24	+3	1	+3	4
R	→	U	→	X	→	A	→	D
9	+3	12	+3	15	+3	18	+3	21
I	→	L	→	O	→	R	→	U
6	+3	9	+3	12	+3	15	+3	18
F	→	I	→	L	→	O	→	R
20	+3	23	+3	26	+3	3	+3	6
T	→	W	→	Z	→	C	→	F

? ⇒ DURF

25. In the following question, select the missing number from the given alternatives.

13, 23, 36, 59, 95, ?

- (a) 164 (b) 154
(c) 192 (d) 136

Ans : (b)

$$13 + 23 \rightarrow 36$$

$$23 + 36 \rightarrow 59$$

$$36 + 59 \rightarrow 95$$

$$59 + 95 \rightarrow 154$$

26. In the following question, select the missing number from the given alternatives.

41, 83, 167, 335, 671, ?

- (a) 1297 (b) 1343
(c) 1447 (d) 1661

Ans : (b)

$$41 \times 2 + 1 \rightarrow 83$$

$$83 \times 2 + 1 \rightarrow 167$$

$$167 \times 2 + 1 \rightarrow 335$$

$$335 \times 2 + 1 \rightarrow 671$$

$$671 \times 2 + 1 \rightarrow 1343$$

? ⇒ 1343

27. In the following question, select the missing number from the given alternatives.

41, 52, 82, 101, ?

- (a) 208 (b) 136
(c) 124 (d) 144

Ans : (c)

41	52	65	82	101	124
↑	↑	↑	↑	↑	↑
+11	+13	+17	+19	+21	
41	52	65	82	101	124
↑	↑	↑	↑	↑	↑
+11	+13	+17	+19	+21	
2	4	2	4		

28. M is taller than S, S is shorter than N, S is taller than P and N is shorter than Q. Who is the shortest?

- (a) N (b) P
(c) S (d) M

Ans : (b)

(i) M > S

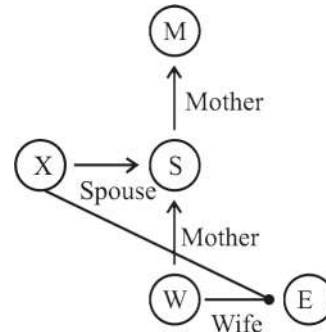
(ii) Q > N > S > P

So the shortest is 'P'

29. Showing a photograph to E, Mr X said that, the lady in the photograph was his spouse's mother. E said that the lady was his wife's mother's mother. If the lady in the photograph has only daughter, then how is E related to X?

- (a) Son-in-law (b) Son
(c) Grandson (d) Brother

Ans : (a)



So 'E' is son-in-law of 'X'

30. From the given alternative words select the word which cannot be formed using the letters of the given word :

MUNIFICENT

- (a) faint (b) tunic
(c) unite (d) mince

Ans : (a) 'Faint' cannot be formed by 'MUNIFICENT' because alphabet 'A' is absent in MUNIFICENT.

31. If CYPRIOT is coded as XBKIRLG, then how will GEM be coded as?

- (a) IGO (b) FDL
(c) TVN (d) HFN

Ans : (c)

C	Y	P	R	I	O	T
3	25	16	18	9	15	20

Alphabet No. is started from A.

G	E	M
7	5	13

? ⇒ TVN

X	B	K	J	R	L	G
3	25	16	18	9	15	20

Alphabet No. is started from Z.

T	V	N
7	5	13

32. In a certain code language, 2937 means 'I like green apples', 8073 means 'we like green chillies' and 9517 means 'I hate green mangoes'. Find the code for 'like'.

- (a) 9 (b) 7
(c) 3 (d) 2

Ans : (c)

- (i) 2937 I like green apple
(ii) 8073 We like green chillies.
(iii) 9517 I hate green mangoes.

From (i), (ii) & (iii)–

7 → stand for green

From (i) & (ii)–

3 → stand for like

33. In a certain code language, '+' represents '-', '-' represents '×', '×' represents '÷' and '÷' represents '+'. Find out the answer to the following question.

$$240 \div 60 - 15 \times 25 + 5 = ?$$

- (a) 271 (b) -366
(c) 96 (d) -25

Ans : (a)

$$240 \div 60 - 15 \times 25 + 5 = \text{Equation.}$$

After applying the mathematical operation.

$$\Rightarrow 240 + 60 - 15 \div 25 - 5$$

$$\Rightarrow 240 + 60 \times \frac{15}{25} - 5$$

$$\Rightarrow 240 + 36 - 5$$

$$\Rightarrow 240 + 31$$

$$= 271$$

34. If $12 \# 168 = 14$, $13 \# 78 = 6$ and $1 \# 4 = 4$, then find the value of $15 \# 165 = ?$

- (a) 11 (b) 150
(c) 180 (d) 5

Ans : (a)

$$168 \div 12 = 14$$

$$78 \div 13 = 6$$

$$4 \div 1 = 4$$

So $165 \div 15 = 11$

35. If $A \$ B$ means A is son of B, $A \# B$ means A is brother of B and If $A * B$ means A is mother of B, then what does $P * Q \$ R \# S$ mean?

- (a) S is P's brother's wife
(b) P is S's sister
(c) P is S's brother's wife
(d) P is S's motehr

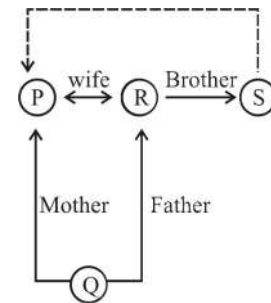
Ans : (c)

$$P * Q \$ R \# S$$

(i) P is mother of Q

(ii) Q is son of R

(iii) R is brother of S.



So P is 'S' brother's wife.

36. Select the missing number from the given responses:

10	7	4
2	2	10
12	9	?

- (a) 21 (b) 14 (c) 6 (d) 3

Ans : (b)

10	7	so	4
+	+		+
2	2		10
↓	↓		↓
12	9		14

37. Which of the following terms follows the trend of the given list?

XIXXXX, IXXXXX, XXXXXI, XXXXIX,

- (a) XXXIXX (b) XXXXXI
(c) XXIXXX (d) XIXXXX

Ans : (a)

X I X X X X X, I X X X X X X,

1 2 3 4 5 6 1 2 3 4 5 6

X X X X X I, X X X X I X

1 2 3 4 5 6 1 2 3 4 5 6

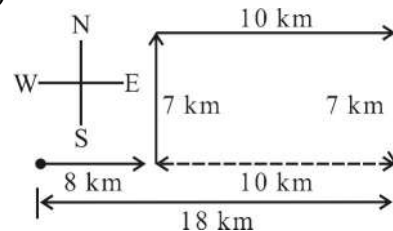
So, X X X I X X

1 2 3 4 5 6

38. A cyclist goes 8 km East, then turn to his left and travels 7 km, then turns East and travels 10 km then turns South and travels 7 km. Where is he now with reference to his starting position?

- (a) 18 km East (b) 18 km West
(c) 2 km East (d) 2 km West

Ans : (a)

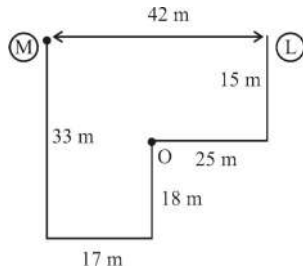


So he is 18 km east with reference to his starting position.

39. Two workmen L and M start at the point. L walks 25 m East, then turns left and walks 15 m. In the meanwhile M walks 18 m South, then turns to his right and walks 17 m, then turns North and walks 33 m. Where is M with respect to L?

- (a) 42 m West (b) 42 m East
(c) 15 m West (d) 15 m East

Ans : (a)



So M is 42 m West from L

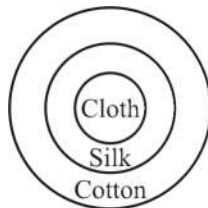
40. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any follows from the given statements.

Statement I : All cloth is silk
Statement II : All silk is cotton

Conclusion I : Some cotton is cloth
Conclusion II : All cloth is cotton

- (a) Only conclusion I follows
(b) Only conclusion II follows
(c) Both conclusions I and II follow
(d) Neither conclusion I nor conclusion II follows

Ans : (c)



Conclusion I : Some cotton is cloth (✓)
Conclusion II : All cloth is cotton (✓)

Both conclusions I and II follow

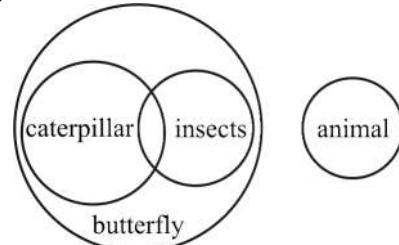
41. In the question three statements are given, followed by three conclusions, I, II and III. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement I : All caterpillars are butterflies
Statement II : Some caterpillars are insects
Statement III : No butterflies are animals

Conclusion I : Some insects are butterflies
Conclusion II : All insects are animals
Conclusion III : Some animals are caterpillars

- (a) Only conclusion I follows
(b) Only conclusion II follows
(c) Only conclusions I and III follow
(d) All conclusions I, II and III follow

Ans : (a)



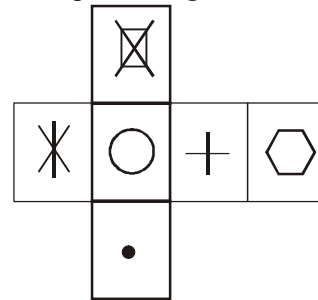
Conclusion I : Some insects are butterflies (✓)

Conclusion II : All insects are animals (✗)

Conclusion III : Some animals are caterpillars (✗)

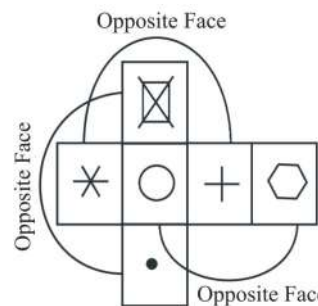
So only conclusion I follows, while conclusion II & III are wrong.

42. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?



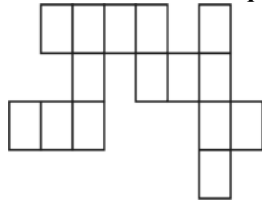
- (a) (b)
(c) (d)

Ans : (a)



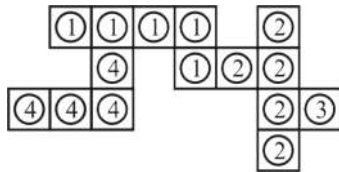
In the option (a) * and + are at the adjacent side but in a question figure these are at opposite face.

43. Which of the following answer figure patterns can be combined to make the question figure?

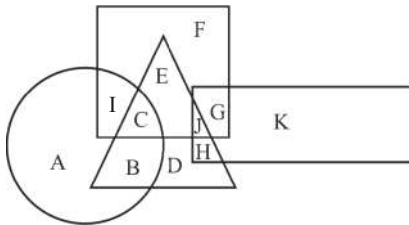


- (a)
- (b)
- (c)
- (d)

Ans : (c)

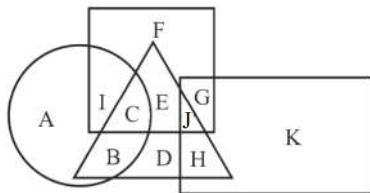


44. In the following figure, square represents athletes, triangle represents engineers, circle represents fathers and rectangle represents entrepreneurs. Which set of letters represents athletes who are either entrepreneurs or fathers?



- (a) EF
- (b) CJ
- (c) CBJH
- (d) ICGJ

Ans : (d)



- Square → athletes.
- Triangle → engineers.
- Circle → fathers.
- Rectangle → Entrepreneurs.

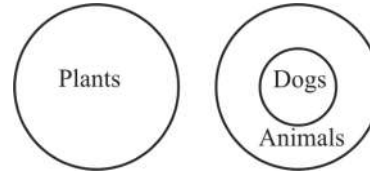
45. Which of the following Venn diagrams represents the relationship between animals, Plants and Dogs?

- (a)
- (b)
- (c)
- (d)

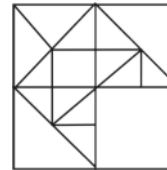
Ans : (a)

(i) Dog is a subset of animal.
(ii) & plant is completely different from animal group.

So Venn diagram is :

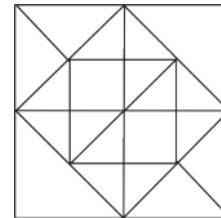


46. Which answer figure will complete the pattern in the question figure?

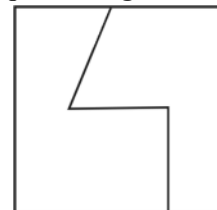


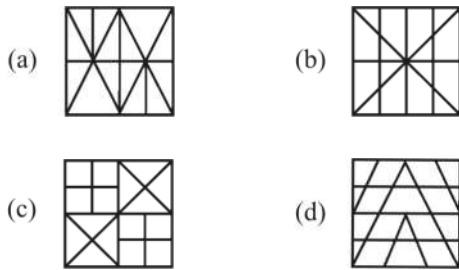
- (a)
- (b)
- (c)
- (d)

Ans : (a)

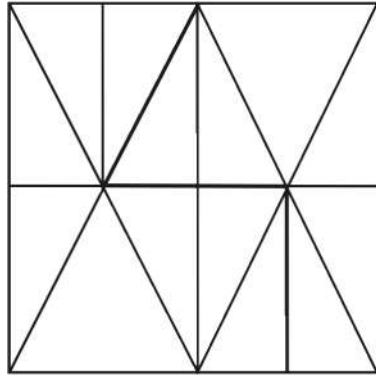


47. From the given answer figures, select the one in which the question figure is hidden/embedded

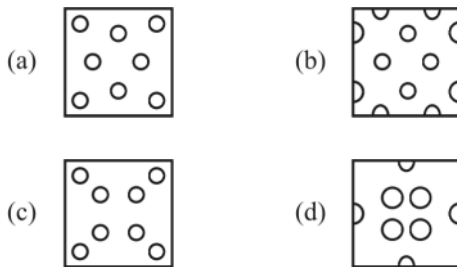
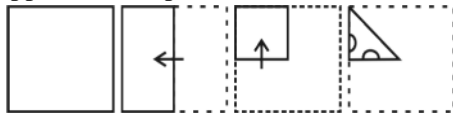




Ans : (a)

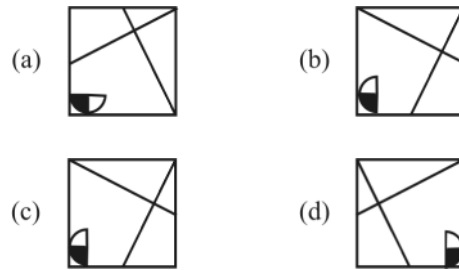
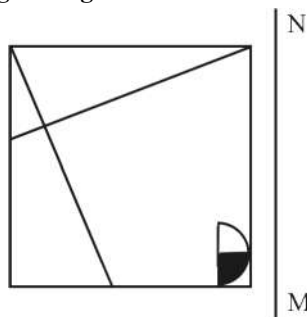


48. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.

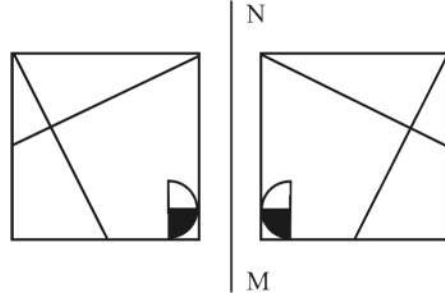


Ans : (b) According to question when a piece of paper is folded and punched and then unfolded or open it look like as figure shown is option (b).

49. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?



Ans: (b)



50. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example 'K' can be represented by 32, 01 etc and 'R' can be represented by 79, 99 etc. Similarly, you have to identify the set for the word 'GLUE'.

Matrix-I					
	0	1	2	3	4
0	F	K	D	A	C
1	H	D	A	I	H
2	L	A	L	G	F
3	G	H	K	D	L
4	E	E	C	M	K

Matrix-II					
	5	6	7	8	9
5	X	N	U	O	Q
6	V	X	P	Z	X
7	P	N	N	X	R
8	X	S	Q	X	V
9	U	O	S	Z	R

- (a) 30, 33, 78, 43 (b) 21, 67, 98, 32
 (c) 23, 34, 57, 40 (d) 33, 87, 12, 67

Ans : (c)

G L U E
 | | | |
 23 34 57 40

Junior Engineer Online Exam 2018

CPWD/CWC/MES

CIVIL Engineering

Time : 3-15 pm]

[Exam Date : 24 January, 2018

REASONING

1. In the following question, select the related word pair from the given alternatives.

Red: Danger:: ? : ?

- (a) White:War (b) Yellow: Cold
(c) Blue:Pain (d) Black:Sorrow

Ans : (d) Red colour is used to represent **danger**. and **Black** color is used to represent **sorrow**.

2. In the following question, select the related word from the given alternatives.

Blood : Red :: Coal : ?

- (a) Black (b) Heat
(c) Solid (d) Mine

Ans : (a) Blood is Red in colour. In the same way coal is black in colour.

3. In the following question, select the related word pair from the given alternatives.

Sad : Happy :: ? : ?

- (a) History : Old
(b) Modern : Ancient
(c) Economics : Mathematics
(d) Love : Beautiful

Ans : (b) Happy is opposite of sad. And Ancient is opposite of Modern.

4. In the following question, select the related letter pair from the given alternatives.

MOL : TVS :: ? : ?

- (a) NAP : UHW (b) NAP : CHK
(c) NOT : UMW (d) NOT : HFG

Ans : (a)



5. In the following question, select the related letters from the given alternative.

FORK : ILUM : LAPE : ?

- (a) TBXO (b) XBTC
(c) OXSB (d) GYTC

Ans : (c)

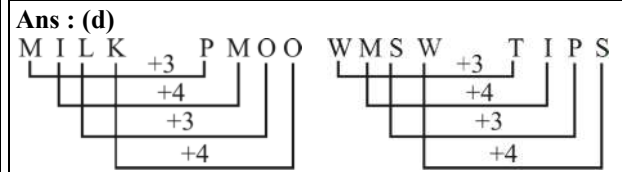


6. In the following question, select the related letters from the given alternatives.

MILK : PMOO :: TIPS : ?

- (a) WAMS (b) GMSW
(c) GFBC (d) WMSW

Ans : (d)



7. In the following question, select the related number from the given alternatives.

51 : 66 : 81 : ?

- (a) 76 (b) 96
(c) 98 (d) 82

Ans : (b) $51 + 15 = 66$
 $81 + 15 = 96$
Note—The number of the second group is obtain by adding 15 in the first group number.

8. In the following question, select the related number from the given alternatives.

5 : 125 :: 6 : ?

- (a) 343 (b) 576
(c) 216 (d) 326

Ans : (c) $5^3 \rightarrow 125$
 $6^3 \rightarrow 216$
Note—The number of the second group is obtain by cube the first group number.

9. In the following question, select the related number pair from the given alternatives.

46 : 69 :: ? : ?

- (a) 32 : 78 (b) 48 : 74
(c) 58 : 86 (d) 60 : 80

Ans : (a) $46 + \frac{46}{2} = 69$ and $52 + \frac{52}{2} = 78$

10. In the following question, select the odd word from the given alternatives.

- (a) Cataract
(b) Rickets
(c) Iron
(d) Goiter

Ans : (c) Cataract, Rickets & Goiter → disease
Iron → element.

11. In the following question, select the odd word from the given alternatives.

- (a) Hindi (b) Telugu
(c) Oriya (d) Australia

Ans : (d) Hindi, Telgu & Oriya is language
While Australia is a country

12. In the following question, select the odd word from the given alternatives.

- (a) Slipper (b) Shoes
(c) Sandals (d) Shirt

Ans : (d) Shirt is an clothing item that covers most of upper human body.
Slipper, shoes & Sandals are footwear.

13. In the following question, select the odd letters from the given alternatives.

- (a) DLTB (b) EMUC
(c) GPXF (d) IQYG

Ans : (c)

$D \xrightarrow{+8} L \xrightarrow{+8} T \xrightarrow{+8} B$
 $E \xrightarrow{+8} M \xrightarrow{+8} U \xrightarrow{+8} C$
 $G \xrightarrow{+9} P \xrightarrow{+8} X \xrightarrow{+8} F$

14. In the following question, select the odd letters from the given alternatives.

- (a) CHLQU (b) HMQVZ
(c) MRVZF (d) AFJOS

Ans : (c)

$C \xrightarrow{+5} H \xrightarrow{+4} L \xrightarrow{+5} Q \xrightarrow{+4} U$
 $H \xrightarrow{+5} M \xrightarrow{+4} Q \xrightarrow{+5} V \xrightarrow{+4} Z$
 $M \xrightarrow{+4} R \xrightarrow{+4} V \xrightarrow{+4} Z \xrightarrow{+6} F$

15. In the following question, select the odd letters from the given alternatives.

- (a) LQV (b) FXP
(c) MRX (d) GLQ

Ans : (c)

$L \xrightarrow{+5} Q \xrightarrow{+5} V$
 $F \xrightarrow{+5} K \xrightarrow{+5} P$
 $M \xrightarrow{+5} R \xrightarrow{+6} X$

16. In the following question, select the odd numbers from the given alternatives.

- (a) 11 – 17 (b) 23 – 31
(c) 43 – 59 (d) 41 – 47

Ans : (c)

Between 11 to 17 → only one prime No (ie 13)
Between 23 to 31 → only one prime No (ie 29)
Between 43 to 59 → there are two prime Nos (ie 47, 53)

17. In the following question, select the odd number from the given alternatives.

- (a) 12 – 156 (b) 13 – 182
(c) 14 – 210 (d) 15 – 230

Ans : (d) $12 \times (12 + 1) = 156$
 $13 \times (13 + 1) = 182$
 $14 \times (14 + 1) = 210$
 $15 \times (15 + 1) = 230$

18. In the following question, select the odd number pair from the given alternatives.

- (a) 23 – 92 (b) 31 – 124
(c) 43 – 182 (d) 37 – 148

Ans : (c) $23 \times 4 = 92$
 $31 \times 4 = 124$
 $43 \times 4 = 172$

19. Arrange the given words in the sequence in which they occur in the dictionary.

1. Please 2. Plunge
3. Plumnet 4. Plush
5. Pleasure
(a) 51324 (b) 15324
(c) 43125 (d) 34125

Ans : (b) Arrangement of the words according to the sequence in the dictionary are–

- (i) Please
(ii) Pleasure
(iii) Plumnet
(iv) Plunge
(v) Plush

20. Arrange the given words in the sequence in which they occur in the dictionary.

1. Primary 2. Previous
3. Presence 4. Preside
5. Prestige
(a) 54321 (b) 34521
(c) 45123 (d) 54123

Ans : (b) Arrangement of the words according to the sequence in the dictionary are–

- (i) Presence
(ii) Preside
(iii) Prestige
(iv) Previous
(v) Primary

21. Arrange the given words in the sequence in which they occur in the dictionary.

1. Sickly 2. Shrivel
3. Shrewd 4. Sinful
5. Singer
(a) 32145 (b) 23145
(c) 32541 (d) 23541

Ans : (a) Arrangement of the words according to the sequence in the dictionary are–

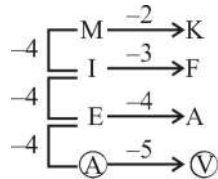
- (i) Shrewd
(ii) Shrivel
(iii) Sickly
(iv) Sinful
(v) Singer

22. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

MK, IF, EA, ? WQ

- (a) SR (b) LQ
(c) AV (d) FN

Ans : (c)

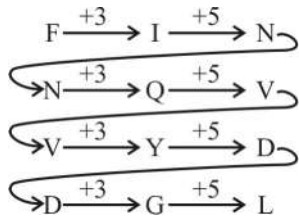


23. A series is given with one term missing. Select the correct alternatives from the given ones that will complete the series.

FIN, NQV, VYD, ?, LOT

- (a) HLS (b) DGL
(c) HGP (d) GLH

Ans : (b)

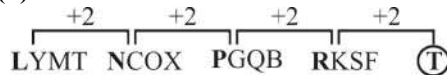


24. A series is given with one term missing, Select the correct ones that will complete the series.

LYMT, NCOX, PGQB, RKSF, ?

- (a) JKLT (b) TOUJ
(c) NMLP (d) LTMA

Ans : (b)

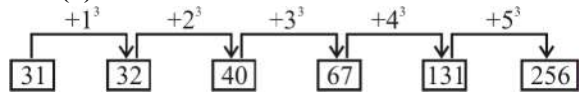


25. In the following question, select the missing number from the given series.

31, 32, 40, 67, 131, ?

- (a) 242 (b) 256
(c) 322 (d) 194

Ans : (b)



26. In the following question, select the missing number from the given series.

31, 44, 75, 119, 194, ?

- (a) 243 (b) 313
(c) 353 (d) 393

Ans : (b) 32 + 44 → 75

$$44 + 75 \rightarrow 119$$

$$75 + 119 \rightarrow 194$$

$$119 + 194 \rightarrow 313$$

27. In the following question, select the missing number from the given series.

44, 22, 33, 82, 5, 288, 75, ?

- (a) 1299.375 (b) 1649.43
(c) 2024.5 (d) 2345.375

Ans : (a) $0 \times 44 + \frac{44}{2} \rightarrow 22$

$$1 \times 22 + \frac{22}{2} \rightarrow 33$$

$$2 \times 33 + \frac{33}{2} \rightarrow 82.5$$

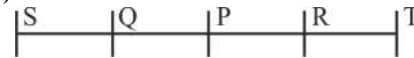
$$3 \times 82.5 + \frac{82.5}{2} \rightarrow 288.75$$

$$4 \times 288.75 + \frac{288.75}{2} \rightarrow 1299.375$$

28. Five people P, Q, R, S and T are standing in a queue, R is standing between P and T. P is just behind Q and Q is second in the queue. Who is second last in the queue?

- (a) T (b) S
(c) R (d) P

Ans : (c)

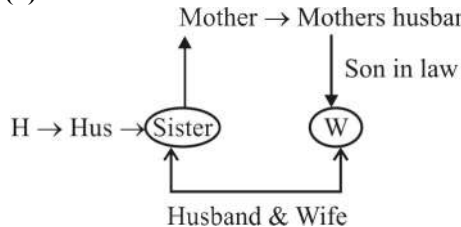


So, R is second last in the queue.

29. H said to W that you are the son-in-law of my husband's sister's mother's husband. How are H and W related to each other?

- (a) W is the son-in-law of H
(b) W is the husband of the sister of H's husband
(c) W is the husband of the sister of H
(d) W is the brother of H's husband

Ans : (b) W is the husband of the sister of H's husband



30. From the given alternative words select the word which cannot be formed using the letters of the given word.

RELINQUISH

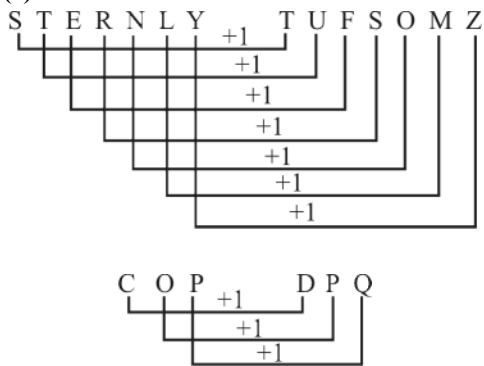
- (a) liner (b) raise
(c) resin (d) shine

Ans : (b) Raise is the word which cannot be formed by using the letters of RELINQUISH because the letter A is not present in the given word.

31. If STERNLY is coded as TUF SOMZ, then how will COP be coded as?

- (a) XLK (b) BNO
(c) DPQ (d) EQR

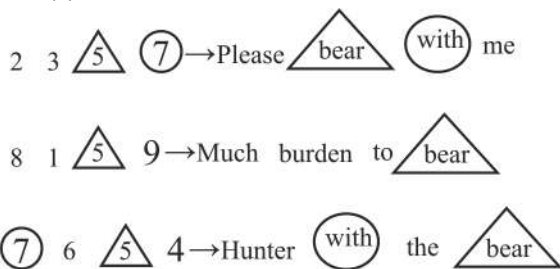
Ans: (c)



32. In a certain code language, 2357 means 'please bear with me', 8159 means 'much burden to bear' and 7654 means 'hunter with the bear'. Find the code for 'with'.

- (a) 7 (b) 2
(c) 3 (d) 5

Ans : (a)



So, the code for 'with' is '7'.

33. In a certain code language, '+' represents '-', 'x' represents '×', '÷' represents '÷' and '÷' represents '+'. Find out the answer to the following question.

$$196 \div 4 - 125 \times 50 + 10 = ?$$

- (a) -61 (b) 196
(c) 93 (d) -65

Ans : (b) $196 \div 4 - 125 \times 50 + 10 =$ Equation

According to question by changing the mathematical expression and solving the equation.

$$\Rightarrow 196 + 4 \times 125 \div 50 - 10$$

$$\Rightarrow 196 + 4 \times \frac{5}{2} - 10$$

$$\Rightarrow 196 + 10 - 10$$

$$\Rightarrow 206 - 10$$

$$\Rightarrow 196$$

So, the answer of the given equation is 196.

34. If $21 \# 11 = 5$, $18 \# 4 = 7$, $18 \# 4 = 7$ and $6 \# 2 = 2$, then find the value of $13 \# 5 = ?$

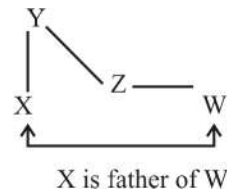
- (a) 4 (b) 8
(c) 18 (d) 65

Ans: (a) $\frac{21-11}{2} = 5, \frac{18-4}{2} = 7, \frac{6-2}{2} = 4$, So $\frac{13-5}{2} = 4$

35. If A \$ B means A is son of B, A # B means A is sister of B and If A * B means A is father of B, then what does X \$ Y * Z # W means?

- (a) X is father of W
(b) X is brother of W
(c) W is father of X
(d) X is father's father of W

Ans : (b) X \$ Y * Z # W Equation



36. Select the missing number from the given responses

8	4	12
7	8	?
8	5	13

- (a) 1 (b) -1
(c) 15 (d) 4

Ans : (c) The third column is summation of first two columns-

$$8 + 4 = 12$$

$$8 + 5 = 13$$

So $7 + 8 = 15$

37. Which of the following terms follows the trend of the given list?

ABABABABC, ABABBACB, ABABABCAB, ABABACAB, ABABACBAB, ABABCABAB,

- _____.
(a) ACBABABAB
(b) ABCABABAB
(c) ABACBABAB
(d) CABABABAB

Ans: (c) The term AB ACBABAB is follows the trend of the given list. The letter C will shifted towards left in each next terms.

38. A salesman starts on his job and walks 3 km West, then the turns South and walks 4 km, then the turns West and walks 5 km, and then he turns to his right and walks 4 km. Where is he now with respect to his starting position?

- (a) 8 km East
(b) 2 km West
(c) 2 km East
(d) 8 km West