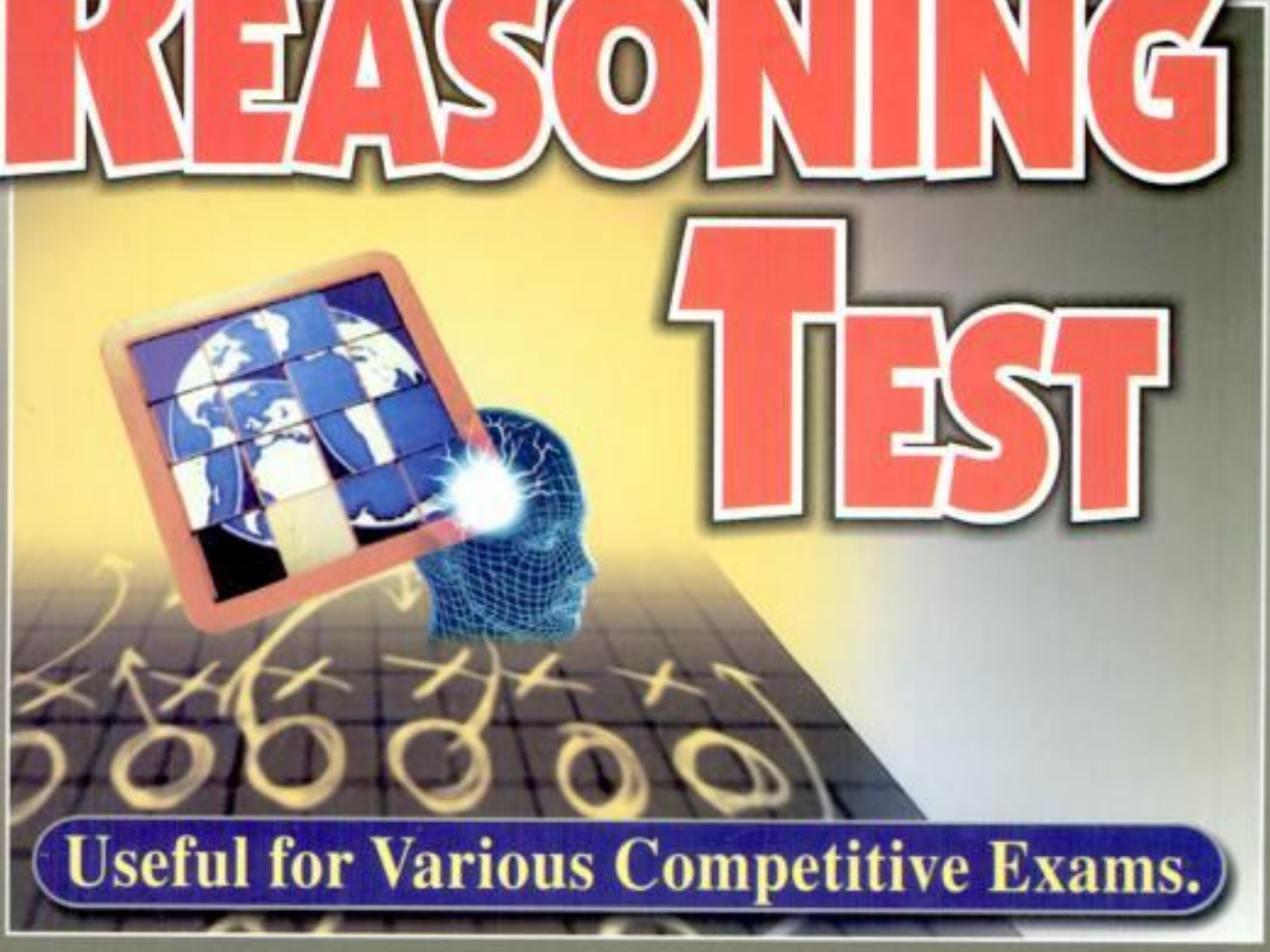
HIGHLY DISTINCTIVE
Questions with
Explanatory Answers

UPKAR'S

NEW PARADIGM

REASONING TEST



Useful for Various Competitive Exams.

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Reasoning Test


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1 Alphabet Test

A series of letters is known as **alphabet**. There are 26 letters in English alphabet. If the alphabets are asked to be counted from the left then we start counting from A and if we asked to count from the right then they are counted from Z.

It is very difficult to remember the serial number of alphabets in the series from the left. Hence, EJOTY formula is proper for it.

E	→	J	→	O	→	T	→	Y
↓		↓		↓		↓		↓
5		10		15		20		25

Thus, in the series from left E occupies 5th position, J occupies 10th position, O → 15th, T → 20th and Y occupies 25th position. The position of any letter between these letters can be known by adding or subtracting the position of the nearest letter of these letters.

Example—Which is the 13th letter from your left ?

Solution—According to the E J O T Y formula nearest numbers to the number 13 are 10 and 15. Hence, 13th letter from the left can be found by the following two ways—

(1) $13 \Rightarrow 10 + 3$

$$\Rightarrow J + \overset{1\quad 2\quad 3}{\boxed{K + \quad L + M}}$$

$$\Rightarrow M$$

(2) $13 \Rightarrow 15 - 2$

$$\Rightarrow O - \overset{1\ 2}{\boxed{N—M}}$$

Hence, from both of the two methods above, we conclude that 13th letter from the left is M.

To find the serial number of alphabets in the series from right B G L Q V formula is used.

B	←	G	←	L	←	Q	←	V
↓		↓		↓		↓		↓
25		20		15		10		5

Thus, in the series from right V occupies 5th position, R → 10th, L → 15th, G → 20th and B occupies → 25 th position.

Example—Which is the 17th letter from your right ?

Solution—According to the formula B G L Q V nearest nubmers to 17th are 15 and 20. Hence, 17th letter from right can be found in the following two ways—

(1) $17 \Rightarrow 15 + 2$

$$\Rightarrow L + \overset{①\quad ②}{K + \boxed{J}}$$

(2) $17 \Rightarrow 20 - 3$

$$\Rightarrow \overset{1\quad 2\ 3}{G + H + I\ \boxed{J}}$$

Thus, from both of the two methods above, we conclude that 17th letter from right is J.

Second Method—

Serial number of any alphabet from right can be found by other method. The number of alphabet which is to be found from right is subtracted from 27. The new number so obtained is now counted by E J O T Y formula.

Example—Which is the 17th letter from your right ?

Solution— $27 - 17 = 10$

10th letter from E J O T Y formula is J.

Example 1. Which is the 4th letter to the left of the 11th letter from your left ?

Solution—By E J O T Y method we know that 11th letter from our left is K and 4th letter to the left of K is G.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

From the left 11th letter →↓

4th letter to the left ←

In this chapter, questions of following types will be asked.

Example 1. A B C D E F G H I J K L M N O P Q R S T U V W X Y Z.

In the alphabet given above, which is 13th letter to the left of 8th letter from your right ?

(A) E (B) F
(C) U (D) H

Solution (B) :

S is the 8th letter from your right and 13th letter to the right of S is F.

Example 2. If the first and sixth letters of the word 'PERVERSION' were interchanged as well as second and seventh letters, and so on, then which of the following will be the 7th letter from your right ?

(A) R (B) I
(C) E (D) O

Solution (D)—According to the given condition, the letter formed will be :

R S I O N P E R V E
↑ 7th letter from right

∴ 'O' will be the required letter.

Example 3. If with the second, fourth, sixth, and 10th letters of the word 'SECRETARIAT', a meaningful word can be formed, then its first letter is the answer. If no meaningful word can be formed then X is the answer and if more than one words are possible then M is answer.

(A) X (B) T
(C) M (D) R

Solution (C)—Second, fourth, sixth and 10th letters of the word 'SECRETARIAT' are E, R, T and A.

Meaningful words from these letters are TEAR, TARE and RATE. Hence the answer is M.

Example 4. There are two letters in the word 'SCIENTIFIC' such that the number of letters between them is the same as the number of letters between them in the alphabet. The letter which comes later in the alphabet is your answer. If no such pair of letters is possible, then your answer is 'X'.

(A) E (B) C
(C) I (D) X

Solution (A) :

S C I E N T I F I C
D

OR

19 3 9 5 14 20 9 6 9 3
S C I E N T I F I C
4

Hence, required pair is C—E.

Since, E is the later letter of alphabet. Therefore required letter is 'E'.

Example 5. How many pairs of two letters of the word 'INDUCTIVE' are there, which have as many letters between them in the given word as in the alphabet ?

(A) None (B) 3
(C) 1 (D) 4

Solution (C) :

I N D U C T I V E
U

OR

9 14 4 21 3 20 9 22 5
I N D U C T I V E
21

Hence, required pair is only one which is T—V.

Example 6. How many such meaningful words can be formed from the letters of word 'I N D U S T R I A L' that one letter is used only one time and there may be no change in their order ?

(A) Four (B) Three
(C) Five (D) Six

Solution (C) : The following five words can be formed from the letters of the given word and also fulfilling the given conditions.

(1) IN (2) DUST
(3) US (4) TRI
(5) TRIAL

EXERCISE—1

1. If the following series is written in reverse order and then all the vowels are deleted, which will be the 8th letter from the right in the new series ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) L (B) H
(C) K (D) J

2. If the following series is written in reverse order, then which will be 12th letter to the right of 10th letter from your right ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) X (B) U
(C) V (D) None of these

3. If in the following series all the letters at the even places are deleted and the order of deleting begins from B, then which will be the third letter to the left of 5th letter from your right ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) I (B) W
(C) M (D) None of these

4. If in the following series all the letters at the odd places are deleted then which will be the 8th letter to the right of 7th letter from your right in the new series ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) X (B) D
(C) A (D) None of these

5. If in the following series the letters at the even places are denoted by lower letters as b for B, d for D and so on then how will the next month of November be written ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) DECEMbEr (B) deCeMber
(C) dEcEMbER (D) dECEMbEr

6. If the following series is written in reverse order then which will be 17th letter to the right of 10th letter from your left ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) Z (B) Y
(C) H (D) None of these

7. In the following series which is the 9th letter to the left of 7th letter from your left ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) K (B) O
(C) P (D) None of these

8. Which is the 17th letter to the left of 10th letter from your left in the following series ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) A (B) S
(C) B (D) None of these

9. Which is the 7th letter to the right of 9th letter from your right in the following series ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) Y (B) L
(C) J (D) None of these

10. Which is the 3rd letter to the right of 5th letter from your left in the following series ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) B (B) H
(C) A (D) None of these

11. Which is the 8th letter to the right of 6th letter from your right in the following series ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) O (B) D
(C) C (D) None of these

12. Which is the 10th letter to the left of 15th letter from your right in the following series ?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) U (B) B
(C) V (D) None of these

13. If the first and fifth letters of the word 'BILINGUAL' were interchanged, also the second and sixth letters, and so on, which of the following would be 7th letter from your right ?
(A) A (B) I
(C) G (D) None of these

14. If the first and sixth letters of the word 'CREDENTIALS' were interchanged, also the second and seventh letters and so on,

which of the following would be 8th letter from your right ?

(A) A (B) T

(C) D (D) None of these

15. If the first and second letters of the word 'DEHYDRATION' were interchanged, also the third and fourth letters and so on, which of the following would be the 3rd letter to the right of 7th letter from your left ?

(A) N (B) H

(C) I (D) None of these

16. If the first and 11th letters of the word 'DISTURBANCE' were interchanged, also the second and 10th letters and so on, which would be the 7th letter from your right ?

(A) R (B) B

(C) A (D) None of these

17. If the first and 7th letters of the word 'GRAPHOLOGIST' were interchanged, also the second and 9th letters third and 11th letters, fourth and 6th letters and fifth and 12th letters, which would be 6th letter to the right of the 10th letters from your left ?

(A) S (B) T

(C) G (D) None of these

18. If with the first, third, fifth and 9th letters of the word 'IGNORANCE' a meaningful word can be formed, which would be the third letter of that word ? If no meaningful word is possible then X is the answer and if more than one, words are possible then M is the answer.

(A) I (B) E

(C) M (D) None of these

19. If with the first, fourth, fifth and eighth letters of the word 'LAUREATE' a meaningful word can be formed, which would be the first letter of that word ? If no meaningful word is possible then X is the answer and if more than one, words are possible then M is the answer.

(A) X (B) E

(C) M (D) None of these

20. If with the first, fourth, fifth and 8th letters of the word 'MIGRAINE' a meaningful word can be formed, which would be third letter from the right of that word ? If no meaningful word is possible then X is the answer and if more than one, words are possible than M is the answer.

(A) X (B) A

(C) R (D) M

21. If with the second, fourth, sixth and 10th letters of the word 'SHOPKEEPER' a meaningful word can be formed, which would be the last letter of that word ? If no meaningful word is possible then 'X' is the answer and if more than one, words can be formed, then the answer is 'M'.

(A) M (B) X

(C) P (D) None of these

22. If with the first, sixth, seventh, eighth and 10th letters of the word 'SYMPATHETIC' a meaningful word can be formed which would be the middle letter of that word ? If no meaningful word can be formed then 'X' is the answer and if more than one words are possible, then the answer is 'M'.

(A) X (B) M

(C) I (D) None of these

23. If with the first, fifth, eighth and 10th letters of the word 'HOMOGENEOUS' a meaningful word can be formed, which would be the first letter of that word ? If no meaningful word can be formed then the answer is 'X' and if more than one, words can be formed then 'M' is the answer.

(A) H (B) X

(C) M (D) None of these

24. Two letters of the word 'YESTERDAY' have as many letters between them in the word as in the alphabet. The letter which comes earlier in the alphabet is your answer. If no such pair is there, then your answer will be 'X'.

(A) R (B) S

(C) X (D) M

25. Two letters of the word 'SYNDROME' have as many letters between them in the word as in the alphabet. The letter which comes earlier in the alphabet is your answer. If no such pair is there, then your answer is 'X'.

(A) M (B) X

(C) N (D) None of these

26. Two letters of the word, 'NEIGHBOUR' have as many letters between them in the word as

in the alphabet (from both sides). Which of those two letters comes earlier ?

(A) B (B) G
(C) E (D) None of these

27. How many pairs of two letters of the word 'UNDERGROUND' have as many letters between them in the word as in the alphabet (from both sides) ?

(A) 3 (B) 4
(C) 5 (D) None of these

28. Which letter in the alphabet is as far from the second letter of the alphabet from the left as S is from the middle letter of G and N in the word 'RESIGNATION' ?

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

(A) V (B) H
(C) G (D) None of these

29. How many pairs of two letters of the word 'RESTRICTIVE' have as many letters between them in the word as in the alphabet (from both sides) ?

(A) Five (B) Three
(C) Two (D) None of these

30. Which letter in the alphabet is as far from the first letter of the alphabet from the left as I is from the middle letter of E and U in the word GREGARIOUS ?

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

(A) B (B) Z
(C) N (D) None of these

31. How many pairs of two letters of the word 'WOODPIGEON' have as many letters between them in the word as in the alphabet (from both sides) ?

(A) 2 (B) 3
(C) 5 (D) None of these

32. How many pairs of two letters of the word 'OSTENTATION' have as many letters between them in the word as in the alphabet (from both sides) ?

(A) 4 (B) 3
(C) 2 (D) None of these

33. How many pairs of two letters of the word 'ENDURANCE' have as many letters between them in the word as in the alphbet (from both sides) ?

(A) 2 (B) 1
(C) 3 (D) None of these

34. Which letter in the alphabet is as far from the first letter of the alphabet from the left as L is from the middle letter of M and E in the word 'FORMIDABLE' ?

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

(A) L (B) P
(C) R (D) None of these

35. Which letter in alphabet is as far from the 10th letter of the alphabet from the left as P is from the middle letter of V and T in the word 'EVAPORATE' ?

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

(A) Q (B) K
(C) I (D) None of these

36. If all the digits of the dial of a clock from 1 to 12 are replaced by the letters of the alphabet in such a way that 1 is replaced by J, 2 by K and so on then by which letter the digit 11 will be replaced ?

(A) U (B) V
(C) S (D) None of these

37. If all the digits of a clock-dial from 1 to 12 are replaced by the letters of the alphabet in such a way that 3 is replaced by E, then by which letter the digit 9 will be replaced ?

(A) L (B) K
(C) N (D) None of these

38. If all the digits of a clock-dial are replaced by the letters starting from C anticlockwise in such a way that 3 is replaced by C, 4 is by D, 5 by G, 11 by L and so on, then by which letter 13 will be replaced ?

(A) E (B) Z
(C) B (D) None of these

Directions—(Q. 39 to 40) Each question is based on the order of following digits, letters and symbols.

A & f t ☆ ↑ P Q n * M ≠ r @ Z & c £ ? 8 7 R u V B e J.

39. If the first half of the above sequence is written in the reverse order, which will be

17th symbol to the left of 15th symbol from your right ?

(A) M (B) n
(C) f (D) None of these

40. If the second half of the above sequence is written in the reverse order, which will be 21st symbol to the right of 11th symbol from your left ?

(A) V (B) e
(C) B (D) None of these

41. If all the digits 1 to 12 of a clock dial are replaced by the letters starting from E and then arranging in order, by which letter the digit 10 will be replaced ?

(A) M (B) Y
(C) O (D) None of these

42. How many meaningful English words can be formed from the letters of the word 'DISTRIBUTOR' without changing the order of the letters and one letter is used one time only ?

(A) 2 (B) 4
(C) 6 (D) None of these

43. How many meaningful English words can be formed from the letters of the word 'COMPROMISE' without changing the order of the letters and one letter is used only one time ?

(A) 6 (B) 5
(C) 3 (D) None of these

44. How many meaningful English words can be formed from the letters of the word 'ELECTRIFICATION' in such a way that neither the order of the letters is changed nor any letter is repeated ?

(A) Seven (B) Five
(C) Four (D) None of these

45. How many meaningful English words can be formed from the letters of the word 'ADMINISTRATOR' in such a way that neither the order of the letters is changed nor any letter is repeated ?

(A) 3 (B) 4
(C) 5 (D) None of these

46. How many meaningful English words can be formed from the letters of the word 'BEAUTIFULLY' in such a way that neither the order of letters is changed nor any letter is repeated ?

(A) Five (B) Seven
(C) Eight (D) None of these

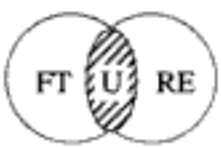
Directions—(Q. 47–50) In each of the following questions some letters are printed in two diagrams. The letters which are printed in shaded portion can be used more than one time but each of the remaining letters can be used only one time. According to the given conditions meaningful words are to be formed with these letters. If only one word is formed then its third letter will be your answer. If more than one, words are formed, then M is the answer and if no word is possible then X is the answer.

47. 

(A) L (B) R
(C) M (D) X

48. 

(A) T (B) I
(C) X (D) M

49. 

(A) T (B) X
(C) M (D) U

50. 

(A) I (B) E
(C) X (D) M

ANSWER WITH EXPLANATION

1. (C) After reversing the order and deleting the vowels we get the following series.

ZYXWVTSRQPNMLKJHGFDCB

8th letter from the right

2. (A) After reversing the order we get the following series

ZYXWVUTSRQPONM LKJIHGFEDCBA

10th letter from the right

10th letter from the right in the above series is J and 12th letter to the right of J is X.

3. (D) From the right → a = 5
To the left → b = 3
Here a > b
Hence, on using the formula (a + b)
a + b = 5 + 3 = 8
∴ 8th letter from the right should be S. But on accout of deleting the even letter, 8th letter from the right
= 11th letter from the left
(27 – (8 + 4 + 4) = K

Second Method—
On arranging the letters according to the given condition

A C E G I K M O Q S U W Y

3rd 5th

In the above letter series 5th letter from the right is Q and third letter to the left of Q is K.

4. (B) New series according to the given condition is—

B D F H J L N P R T V X Z

7th →
8th →

7th letter from the right is N and 8th letter to the right of N is D.

5. (D) According to the given condition on arranging letters we get
AbCdEfGhIjKlMnOpQrStUvWxYz
Since, DECEMBER is the next month to NOVEMBER
∴ DECEMBER = dECEMbEr

6. (A) On writing the letters in reverse order

Z Y X W V U T S R Q P O N

→ 10th

M L K J I H G F E D C B A

In the series given above, 10th letter from the left is Q and 17th letter to the right to Q is Z.

7. (C)

A B C D E F G H I J K L M

7th from left → 9th to the left

N O P Q R S T U V W X Y Z

7th letter from our left is G and 9th letter from G to the left is P.

8. (B)

A B C D E F G H I J K L M

10th letter from our left is J

N O P Q R S T U V W X Y Z

17th letter to the left of J

From our left 10th letter is J and 17th letter to the left of J is S.

9. (D) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
In the above series 9th letter from the right is R and 7th letter to the the left of R is K.

10. (A) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
5th left from the left is E and 3rd letter to left of E is B.

11. (C)

ABCDEFGHIJKLMNOPQRSTUVWXYZ

6th ←

Sixth letter from the right is U and 8th letter to the right of U is C.

12. (B)

ABCDEFGHIJKLMNOPQRSTUVWXYZ

10 th letter to the left

15th letter from our right

15th letter from our right is 'L' and 10th letter to left of L is B.

13. (D) According to the given conditions the new series of letter will as given below :

N G U A B I L I L
↑ 7th letter from the right

Hence 7th letter from the right is U.

14. (A) According to the given conditions the new series will be as given below :

N T I A L C R E D E S
8th letter from the right

8th letter from our right is A.

15. (C) According to the given conditions the new series will be as given below :

E D Y H R D T A O I N
7th letter from our left → 3rd letter to the left

7th letter from our left is T and 3rd letter from T to right is I.

16. (B) According to the given conditions the new series of letters will be as given below :

E C N A B R U T S I D
7th letter from our right

7th letter from our right is B.

17. (D) According to the given conditions the new series of letters will be as given below :

L G S O T P G O R I A H
10th letter from our left; 6th letter to the right; to the right

10th letter from our left is I and 6th letter to the right of I is O.

18. (A) According to the given conditions the meaningful word so formed is 'R E I N' whose third letter is I.

19. (C) The meaningful words so formed according to the given conditions are 'L E E R' and 'R E E L'.

20. (D) The meaningful words so formed according to the given conditions are R E A M and M A R E.

21. (B) Second, fourth, sixth and tenth letters of the given word are H, P, E and R. No meaningful word is possible with these letters.

22. (C) According to the given conditions, the meaningful word so formed is H E I S T, whose middle letter is I.

23. (A) According to the given conditions, the meaningful word so formed is H U G E whose first letter is H.

24. (A) Y E S T E R D A Y
19

S—T and R—T are two pairs and R is the first letter in this pair.

25. (A) 19 25 14 4 18 15 13 5
S Y N D R O M E
18, 17, 16, 15, 14

M-S is the pair and M is the first letter in this pair.

26. (C) N E I G H B O U R
F
F, G
O, P, Q, R, S, T

E-G, E-H, G-H and N-U are four pairs and E is the first letter in these pairs.

27. (B) 21 14 4 5 18 7 18 15 21 14 4
U N D E R G R O U N D
E, F
Q, P
O, P, Q, R, S, T

D-E, D-G, N-V, O-R are four pairs.

28. (D) R E S I G N A T I O N

T is the middle letter between G and N.
S is five letters before T. Similarly in alphabet W is five letters before B.

29. (B) R E S T R I C T I V E
F, G, H
U

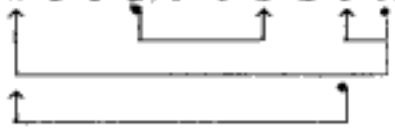
E-I, S-T and T-V are three pairs.

30. (A) G R E G A R I O U S

R is the middle letter between E and U. I is the next letter after R in the right. Similarly in

alphabet B is the next letter after A in the right.

31. (D) W O O D P I G E O N



D-G, N-O, N-W and O-W are four pairs.

32. (B) O S T E N T A T I O N

O-T, S-T and N-O are three pairs.

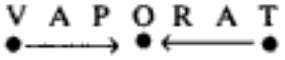
33. (A) E N D U R A N C E

A-C and A-D are two pairs.

34. (B) F O R M I D A B L E

A is the middle letter between M and E. L is the next second letter after A in the right. Similarly in alphabet P is the next second letter after N in the right.

35. (C) E V A P O R A T E



O is the middle letter between V and T. P is the next letter before O in the left. Similarly 10th letter in the alphabet is J and one letter before J in the left is I.

36. (D) According to the given condition digits are replaced by the letters in the following way.

1	2	3	4	5	6	7	8	9	10	11	12
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
J	K	L	M	N	O	P	Q	R	S	T	U

Thus, 11 will be replaced by T.

37. (B) According to the given condition, digits are replaced by the letters in the following way

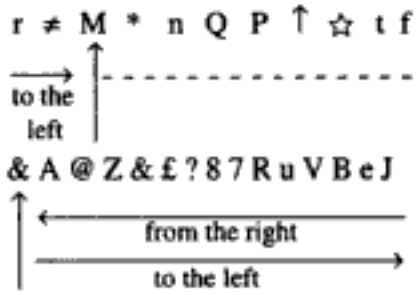
3	4	5	6	7	8	9
↓	↓	↓	↓	↓	↓	↓
E	F	G	H	I	J	K

Hence 9 will be replaced by K.

38. (C) According to the given condition, digits are replaced by the letters in the following ways.

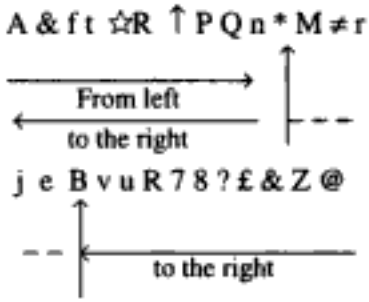
Hence 13 will be replaced by the letter B.

39. (A) According to the given condition arranging the digits letters and symbols we get



From our right 15th symbol is & and from '&' 17th letter to left of it is M.

40. (C) According to the given condition on arranging the digits, letters and symbols we get



11th symbol from the left is * and 21st letter from * in the right is B.

41. (D) According to the given condition on arranging the digits are replaced by the letters in the following way.

11	12	1	2	1	2	3	4	5	6	7	8	9
A	B	C	D	E	F	G	H	I	J	K	L	M
10	11	12	1	2	3	4	5	6	7	8	9	10
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Hence, 10 will be replaced either by N or Z.

42. (D) Following words can be formed :
DI, DIS, IS, TRI, RIB, BUT, TO, TOR and OR.

43. (B) Following words can be formed :
CO, PRO, PROMISE, MIS and IS

44. (D) Following words can be formed :
ELECT, TRI, IF, CAT, TION and ION

45. (D) Following words can be formed :
AD, MINI, IS, RAT, AT, TO, TOR and OR

46. (B) Following words can be formed :
BE, BEAU, BEAUT, IF, FULL, FULLY and BEAUTIFUL

47. (C) Two meaningful words can be formed :
REEL and LEER

48. (B) Meaningful word is :
THIGH whose third letter is I.

49. (A) Meaningful word is :
FUTURE whose third letter is 'T'.

50. (B) Meaningful word can be fromed : DIED the third letter of this word is E.

2 Classification Test

In this test the candidate has to choose one of the four alternatives. Out of these four alternatives, three are almost same in nature but the rest one is different from the three. This different term is your answer. From the following illustrations the idea will be clear.

Example 1. Which one of the words given below is different from the rest ?

(A) Dog (B) Cat
(C) Lion (D) Ox

Answer (C)—All the rest are herbivorous animals while 'lion' is a carnivorous wild animal.

Example 2. Which one of the following numbers is different from the rest ?

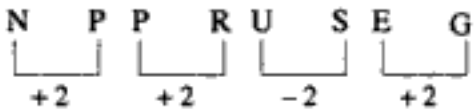
(A) 13 (B) 21
(C) 17 (D) 19

Answer (B)—All the rest are prime numbers while 21 is a composite number.

Example 3. Which one of the following groups of letters is different from the rest ?

(A) NP (B) PR
(C) US (D) EG

Answer (C)



EXERCISE—1

Directions—In each of the questions from 1 to 45, which one of the alternatives is different from the rest ?

1. (A) 24—42 (B) 36—63
   (C) 37—73 (D) 35—51
2. (A) 4—7 (B) 7—16
   (C) 17—36 (D) 16—32
3. (A) 27—57 (B) 63—18
   (C) 28—81 (D) 36—96
4. (A) 51—28 (B) 37—62
   (C) 81—104 (D) 99—76
5. (A) 111—11 (B) 15—105
   (C) 7—91 (D) 3—81
6. (A) 2—4 (B) 6—36
   (C) 7—35 (D) 9—81
7. (A) 7654 (B) 4567
   (C) 9876 (D) 4321
8. (A) 5876 (B) 1435
   (C) 2543 (D) 8576
9. (A) 63, 18 (B) 29, 46
   (C) 47, 34 (D) 28, 41
10. (A) 1365 (B) 5713
    (C) 3175 (D) 7531
11. (A) 3—27 (B) 4—64
    (C) 7—353 (D) 6—216
12. (A) 9—27 (B) 15—45
    (C) 10—30 (D) 20—60
13. (A) 10—45 (B) 20—85
    (C) 40—180 (D) 60—270
14. (A) 2437 (B) 2419
    (C) 5407 (D) 1459
15. (A) 2547 (B) 3456
    (C) 3715 (D) 5678
16. (A) 2731 (B) 1357
    (C) 2571 (B) 2357
17. (A) 15—40 (B) 18—56
    (C) 24—76 (D) 12—28
18. (A) 6—36 (B) 5—25
    (C) 7—49 (D) 3—9

19. (A) 7224 (B) 7525
(C) 4214 (D) 3612

20. (A) 9—40 (B) 20—95
(C) 17—80 (D) 16—78

21. (A) 133 (B) 326
(C) 515 (D) 429

22. (A) 2355 (B) 2753
(C) 7159 (D) 7359

23. (A) 111 (B) 37
(C) 148 (D) 63

24. (A) 13 (B) 61
(C) 97 (D) 117

25. (A) 200 (B) 500
(C) 700 (D) 600

26. (A) 33 (B) 66
(C) 55 (D) 77

27. (A) 34—15 (B) 56—37
(C) 77—58 (D) 64—43

28. (A) 33—18 (B) 21—49
(C) 96—111 (D) 63—81

29. (A) 10—90 (B) 15—135
(C) 5—45 (D) 17—153

30. (A) 2323 (B) 4545
(C) 3663 (D 7373

31. (A) 1441 (B) 6996
(C) 5775 (D) 4848

32. (A) 2442 (B) 3773
(C) 4545 (D) 6776

33. (A) 41 (B) 53
(C) 73 (D) 93

34. (A) 2—3 (B) 3—7
(C) 4—15 (D) 5—24

35. (A) 13—169 (B) 4—16
(C) 14—196 (D) 8—64

36. (A) 6—36 (B) 7—49
(C) 5—25 (D) 4—16

37. (A) 9—27 (B) 6—18
(C) 12—36 (D) 15—45

38. (A) 3175 (B) 7531
(C) 1357 (D) 7315

39. (A) 2468 (B) 4286
(C) 8642 (D) 2648

40. (A) 7352 (B) 9512
(C) 2357 (D) 2157

41. (A) 73, 53 (B) 43, 71
(C) 83, 111 (D) 97, 113

42. (A) 41—77 (B) 33—60
(C) 45—85 (D) 21—37

43. (A) 1324 (B) 5768
(C) 6435 (D) 2435

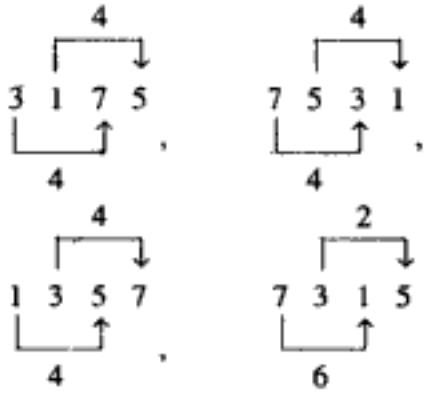
44. (A) 2155 (B) 4546
(C) 6344 (D) 2215

45. (A) 2648 (B) 2468
(C) 1357 (D) 5397

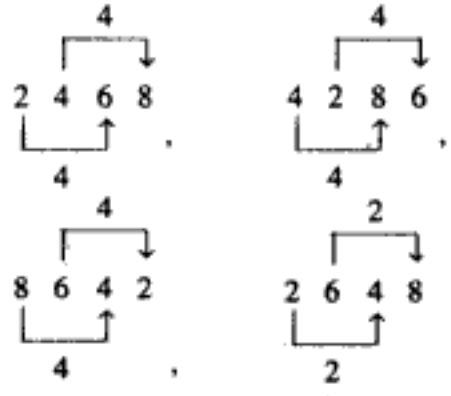
Answers with Explanation

1. (D) In all the rest pairs the digits of one number are in reverse order in second number.
2. (D) Only in this pair, both the numbers are even.
3. (C) In all the rest pairs, the difference of two numbers is divisible by 5.
4. (B) In all the rest pairs the difference of two numbers is 23.
5. (A) In all the rest pairs, second number is the divisible by the first number.
6. (C) In all the rest pairs, second number is the square of the first number.
7. (B) In all the rest numbers, the digits are in descending order.
8. (B) In all the rest numbers last three digits are consecutive.
9. (C) In all the rest pairs, if the digits of first number are written in reverse order and then divided by 2, the second number is obtained.
10. (A) In all the rest numbers, the sum of first and fourth digits and the sum of second and third digits is equal to 8 in each case.
11. (C) In all the rest pairs, second nubmer is the cube of first number.
12. (A) In all the rest pairs, there is not such a number which is a square.

13. (B) In all the rest pairs, second number is $4\frac{1}{2}$ times of the first number.
14. (D) In all the rest numbers, the sum of digits is 16.
15. (C) In all the rest numbers, two digits are even and two digits are odd.
16. (B) Only in this number all the digits are odd.
17. (B) 15—40 18—56 24—76 12—28
    ×4 − 20 ×4 − 16 ×4 − 20 ×4 − 20
18. (A) In all the rest pairs, both the numbers are odd.
19. (B) In all the rest alternatives the numbers are even.
20. (D) 9—40 20—95 17—80 16—78
    ×5 − 5 ×5 − 5 ×5 − 5 ×5 − 2
21. (D) In all the rest numbers, the product of first two digits is the third digit. For example $1 \times 3 = 3$, $3 \times 2 = 6$ and so on.
22. (A) In all the rest numbers no digit is repeated.
23. (B) All the rest numbers are composite numbers.
24. (D) All the rest numbers are prime numbers.
25. (D) In all the rest numbers, the hundred digit is a prime number.
26. (B) All the rest numbers are odd numbers.
27. (D) 34 15 56 37 77 58 64 43
    −19 −19 −19 −21
28. (B) In all the rest pairs each number is divisible by 3.
29. (A) In all the rest pairs each number is odd.
30. (C) In all the rest numbers first and third digits are same and second and fourth digits are same.
31. (D) In all the rest numbers first and last digits are same and second and third digits are same.
32. (C) In all the rest numbers first and last digits are same while second and third digits are same.
33. (D) All the rest are prime numbers.
34. (B) 2—3 3—7 4—15 5—24
    $(2)^2-1$ $(3)^2-2$ $(4)^2-1$ $(5)^2-1$
35. (A) In all the rest alternatives, both the numbers in each pair are even numbers.
36. (C) In all the rest alternatives the difference of two numbers in each case is divisible by 3.
37. (A) In only this alternative the numbers are in the form of square and cube.
38. (D)



39. (D)



40. (D) In all the rest alternatives, the sum of all the digits is 17.
41. (C) In all the rest alternatives both the numbers in each pair the prime numbers.
42. (B) In all the rest alternatives both the numbers in each pair are odd.
43. (C) In all the rest alternatives, the difference between the first and third digits is 1, while the difference of second and fourth digits is also 1.
44. (B) In all the rest alternatives the two similar digits are consecutive.
45. (A) In all the rest alternatives the difference between first and third digits is 4 while the difference of second & fourth digits is also 4.

EXERCISE—2

Directions—In each of the questions from 1 to 48, which letters group is different from the rest?

1. (A) MNW (B) OPY (C) JKT (D) GHO
2. (A) PRW (B) CDJ (C) EFG (D) LMH
3. (A) ACCUSE (B) OPAQUE (C) ASSUME (D) ANIMAL
4. (A) FRY (B) HAN (C) CUT (D) DOT
5. (A) UNITE (B) UNDER (C) UNTIL (D) UPPER
6. (A) TEAM (B) THAN (C) TATA (D) TILE
7. (A) BANISH (B) OPTION (C) ATOMIC (D) EDIBLE
8. (A) MADE (B) SHED (C) CEDE (D) DOLT
9. (A) KMPTZ (B) DFIMR (C) HJMQV (D) ACFJO
10. (A) PLH (B) DFH (C) EKO (D) MKI
11. (A) QRY (B) IPQ (C) BCJ (D) RXY
12. (A) CROTON (B) CRUSH (C) CRIMP (D) CRINGE
13. (A) CRIET (B) CRIME (C) COPIER (D) CONVENIENT
14. (A) CORDIAL (B) CORIANDER (C) CORDATE (D) CORNEA
15. (A) CONVOKE (B) CONVOLUTE (C) CONVOLVE (D) CONVIVIAL
16. (A) CRY (B) JOY (C) FRY (D) TRY
17. (A) EMBOLISM (B) EMBOLDEN (C) EMIGRATE (D) EMIGRANT
18. (A) FAMOUS (B) FRUCTUOUS (C) FANCIED (D) FAVOUR
19. (A) FRUGAL (B) FULGENT (C) FURBISH (D) FRETFUL
20. (A) GLARY (B) GLAZE (C) GLARE (D) GLADE
21. (A) GILD (B) GIFT (C) GIMP (D) GIBE
22. (A) GAUD (B) GEAR (C) GOAL (D) GIVE
23. (A) NOM (B) BCA (C) JIH (D) RSQ
24. (A) ACE (B) MOQ (C) HJL (D) VTR
25. (A) MQT (B) ADG (C) HKN (D) RUX
26. (A) ZCF (B) NQU (C) TWZ (D) BEH
27. (A) NSX (B) RMH (C) JEZ (D) TYC
28. (A) GTM (B) BFD (C) BGE (D) DKH
29. (A) BHD (B) COE (C) DXF (D) CWH
30. (A) HBF (B) LHB (C) OEJ (D) TMG
31. (A) BDF (B) CHK (C) LDO (D) RFX
32. (A) ACE (B) MOQ (C) RTV (D) UWY
33. (A) BDF (B) HJL (C) PRT (D) KMO
34. (A) KLP (B) QMN (C) VRS (D) GCD
35. (A) BFJ (B) MQU (C) HLP (D) RVY
36. (A) nOr (B) STw (C) bCf (D) hIl
37. (A) ABDGK (B) HIKNR (C) PQSWZ (D) YZBEI
38. (A) AEO (B) EOU (C) IEU (D) MKT

39. (A) UAE (B) BCD
(C) KLM (D) PQR

40. (A) BDI (B) KMR
(C) PRW (D) FHM

41. (A) STN (B) PQL
(C) HIC (D) DEY

42. (A) SKJ (B) BCK
(C) QNM (D) UVD

43. (A) STV (B) NOQ
(C) HIL (D) FGI

44. (A) BDI (B) RTY
(C) MOS (D) HJO

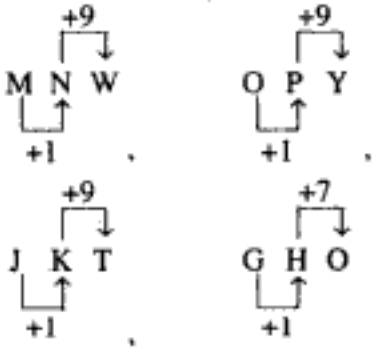
45. (A) IRPK (B) HSMN
(C) BNGH (D) TGJQ

46. (A) PLHD (B) PKOL
(C) TPLH (D) UQMI

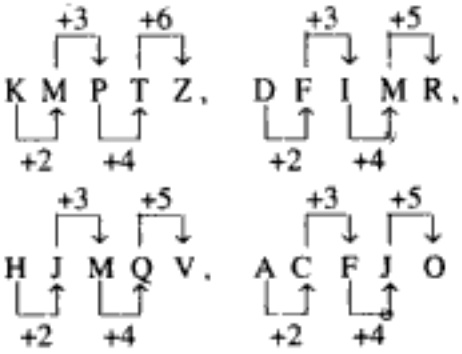
47. (A) ZYWTP (B) POMJF
(C) AZXUQ (D) VUROK

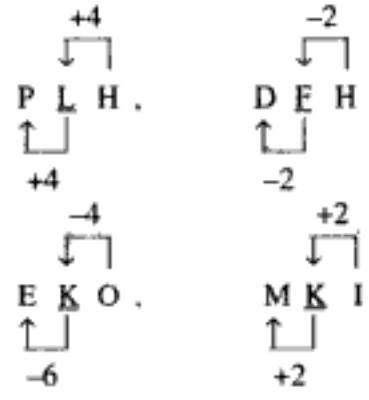
48. (A) MNPTB (B) ABDHP
(C) GHJNT (D) YZBFN

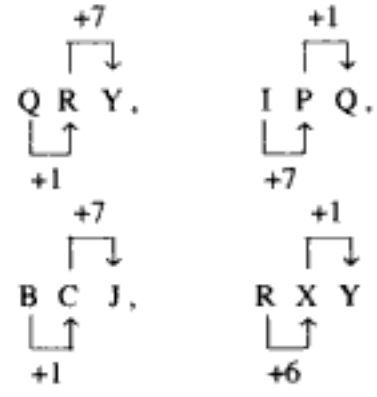
Answers with Explanations

1. (D) 

2. (C) In the rest letters groups all the three letters are not arrange in alphabetical order.
3. (D) In all the rest, last letter is a vowel.
4. (A) In all the rest, middle letter is a vowel.
5. (D) In all the rest, no letter is repeated.
6. (C) In all the rest, no letter is repeated.
7. (D) In all the rest, last letter is not a vowel.
8. (C) In all the rest, no letter is repeated.

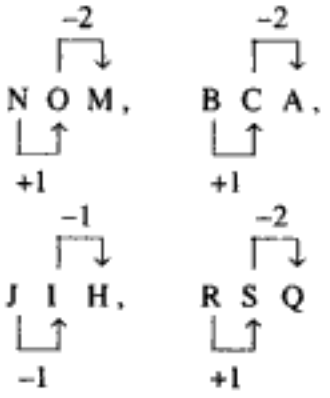
9. (A) 

10. (A) 

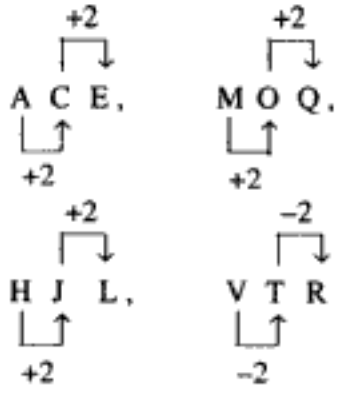
11. (D) 

12. (A) In all the rest, no vowel is repeated.
13. (B) In all the rest 'IE' is used.
14. (C) In all the rest two vowels are together.
15. (D) In all the rest, two vowels are not together.
16. (B) In all the rest no vowel is used.
17. (C) In all the rest, first and last letters are not same.
18. (B) In all the rest, only two vowels are together while in (B) three vowels are together.
19. (A) In all the rest the number of letters is seven.
20. (A) In all the rest, last letter is a vowel.
21. (D) In all the rest, there is only one vowel.
22. (D) In all the rest, two vowels are together.

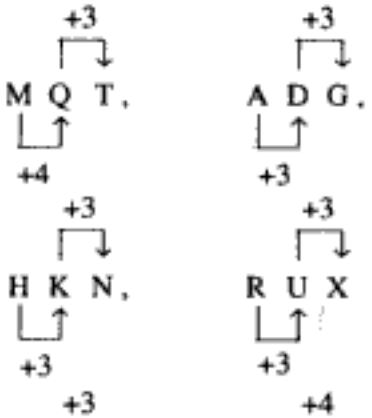
23. (C)



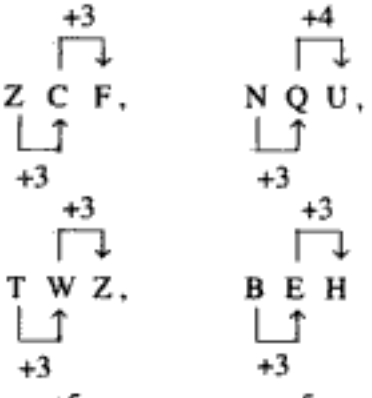
24. (D)



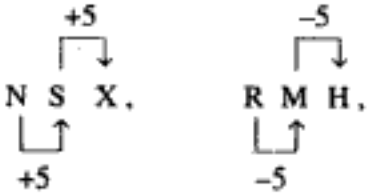
25. (A)

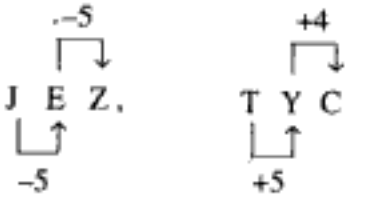


26. (B)

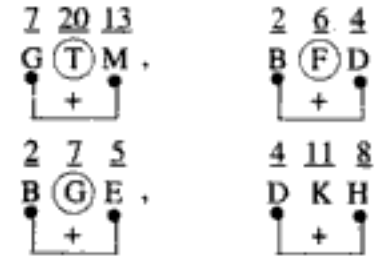


27. (D)

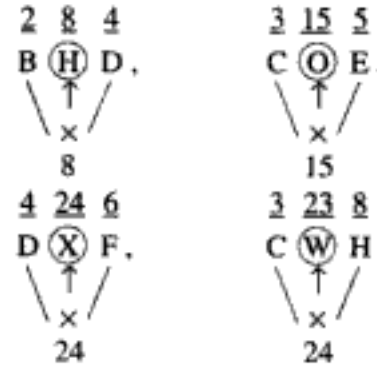




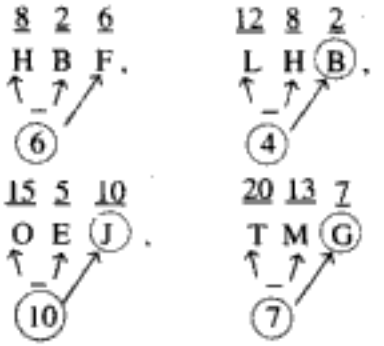
28. (D)



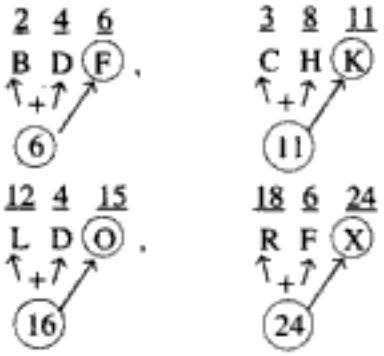
29. (D)



30. (B)



31. (C)



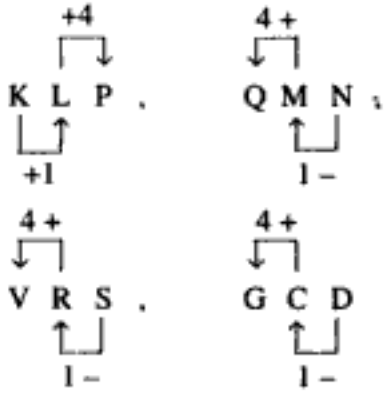
32. (C) $\frac{A}{1}\ \frac{C}{3}\ \frac{E}{5}$, $\frac{M}{13}\ \frac{O}{15}\ \frac{Q}{17}$, $\frac{R}{18}\ \frac{T}{20}\ \frac{V}{22}$, $\frac{U}{21}\ \frac{W}{23}\ \frac{Y}{25}$,

Only in RTV, the digits are even.

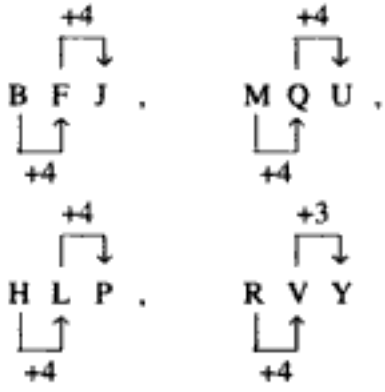
33. (D) $\frac{B}{2}\ \frac{D}{4}\ \frac{F}{6}$, $\frac{H}{8}\ \frac{J}{10}\ \frac{L}{12}$,
$\frac{P}{16}\ \frac{R}{18}\ \frac{T}{20}$, $\frac{K}{11}\ \frac{M}{13}\ \frac{O}{15}$

Only in KMO, the digits are odd.

34. (A)

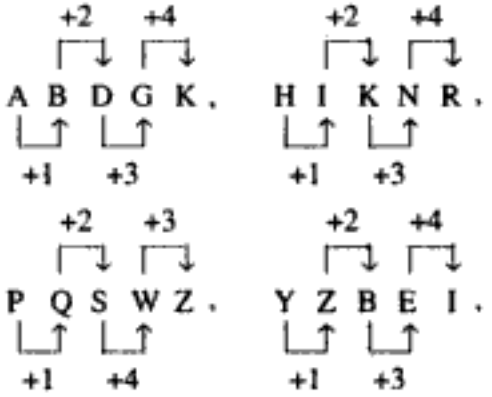


35. (D)



36. (B) In all the rest, first letter is small.

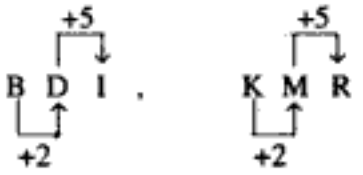
37. (C)

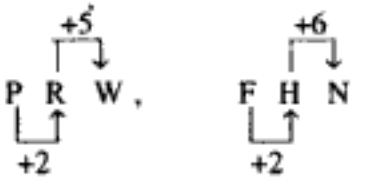


38. (D) In all the rest, each letter is a vowel.

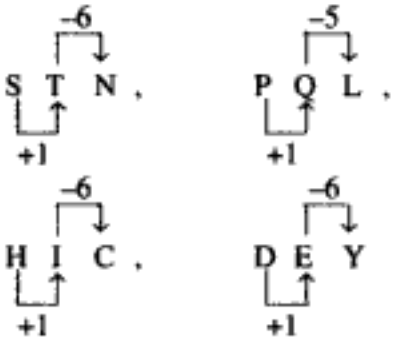
39. (A) In all the rest, each letter is a consonant.

40. (D)

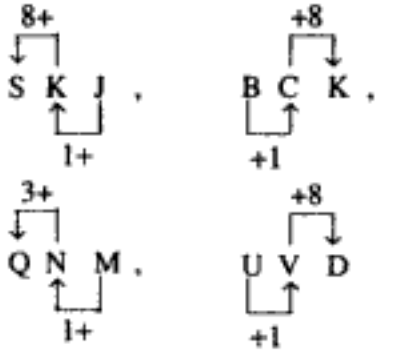




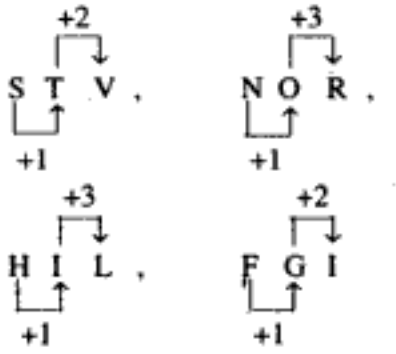
41. (B)



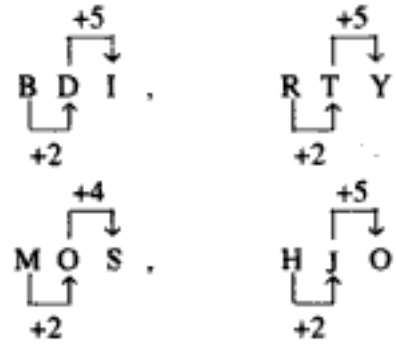
42. (C)



43. (C)



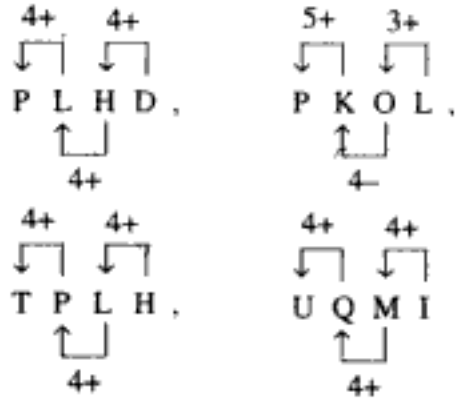
44. (C)



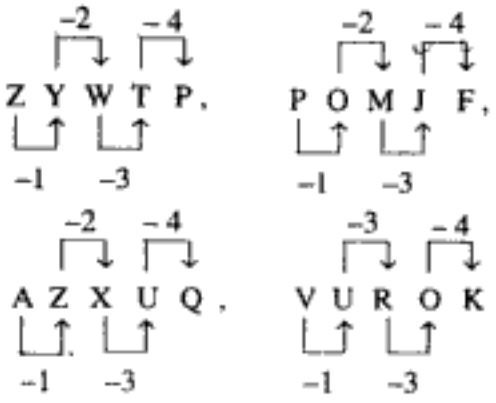
45. (C) IR PK , HSMN ,
BN GH , TG JQ.

In all the rest I & II and III & IV are in reverse order *i.e.*, counting from left and right the same number is obtained.

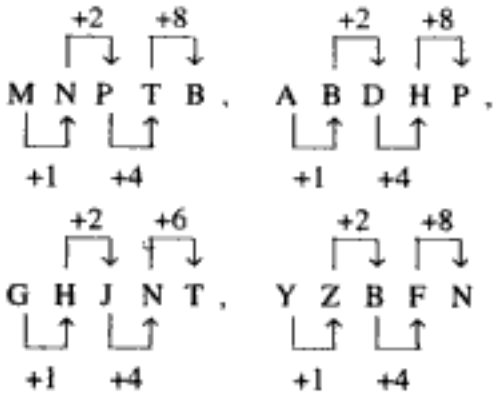
46. (B)



47. (D)



48. (C)



EXERCISE—3

Directions—In each of the following questions find out the odd one.

1. (A) Lawyer (B) Judge
   (C) Council (D) Advocate
2. (A) Flower (B) Stem
   (C) Branch (D) Roots
3. (A) Science (B) Physics
   (C) Chemistry (D) Biology
4. (A) Day (B) Week
   (C) Time (D) Month
5. (A) Liver (B) Nails
   (C) Lungs (D) Heart
6. (A) College-students
   (B) Hospital-patient
   (C) Bus stand-driver
   (D) Stadium-viewer
7. Find the odd word out—
   (A) Cotton (B) Terene
   (C) Silk (D) Wool
8. Out of five given below any four are similar and form a group. Which one of them does not belong to that group ?
   (A) Carrot (B) Potato
   (C) Ginger (D) Beet
   (E) Cabbage
9. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to the group ?
   (A) Cloth (B) Weaver
   (C) Thread (D) Cotton
   (E) Garments
10. Find out the odd one.
    (A) Ruby (B) Sapphire
    (C) Graphite (D) Bauxite
11. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to the group ?
    (A) Television (B) Record-player
    (C) Refrigerator (D) Radio
    (E) Cassette-player
12. Which one is different from the rest ?
    (A) Sparrow (B) Chicken
    (C) Pigeon (D) Owl

Directions—(13-32) In each of the following questions find the word or pair of words which is different from the other three words or pairs of words.

13. (A) Hypothesis (B) Assumption
    (C) Observation (D) Experiment
14. (A) Disperse (B) Congregate
    (C) Accumulate (D) Aggregate
15. (A) Tame (B) Wild
    (C) Domesticated (D) Docile

16. (A) Shirt-Dress (B) Boy-Girl
(C) Book-Library (D) Table-Furniture

17. (A) Mango-Fruit (B) Rice-Corn
(C) Student-Class (D) Tomato-Potato

18. (A) Sweet-Sour (B) Unhappy-Sad
(C) In-Out (D) Up-Down

19. (A) Lake (B) Brook
(C) Stream (D) River

20. (A) Equity (B) Fairness
(C) Partiality (D) Justice

21. (A) Light-heavy (B) Broad-Wide
(C) Big-Large (D) Tiny-Small

22. (A) Unique
(B) Peerless
(C) Common Place
(D) Unequalled

23. (A) Foggy (B) Transparent
(C) Turbid (D) Cloudy

24. (A) Skirmish (B) Fray
(C) Fight (D) Detente

25. (A) Cover-Page (B) Circle-Radius
(C) Chair-Leg (D) Flower-Petal

26. (A) Censure (B) Admonish
(C) Rebuke (D) Retrieve

27. (A) Oil-Lamp
(B) Water-Tap
(C) Power-Machine
(D) Oxygen-Life

28. (A) Knife-Dagger (B) Pistol-Gun
(C) Car-Bus (D) Engine-Train

29. (A) Mother-Father
(B) Sister-Brother
(C) Master-Servant
(D) Uncle-Nephew

30. (A) Car-Engine (B) Ticket-Train
(C) Ink-Pen (D) Stamp-Letter

31. (A) Worker-Clerk
(B) Office-Factory
(C) Student-Teacher
(D) Cashier-Bank

32. (A) Mendicant (B) Ascetic
(C) Pious (D) Hermits

Answers with Explanation

1. (C) Except council all other are used for vakil while council is used for a group of vakils.
2. (D) All the rest are upper parts of a tree.
3. (A) All the rest are the branches of Science.
4. (C) All the rest are units of time.
5. (B) All the rest have nerves.
6. (C) College means for students, Hospital for the patients, and Stadium for viewers. Likewise bus-stand does not mean for drivers but for travellers.
7. (B) All the rest are natural production while Terene is a synthetic production.
8. (E) All the rest grow underground.
9. (B) All other are inanimate things.
10. (C) All the rest are precious stones.
11. (C) All the rest are related to sound.
12. (B) Only chicken is a younger one.
13. (D) All the rest are mental reactions, while experiment depends on physical as well as on instruments.
14. (A) All the rest words are synonym to each other, while 'Disperse' is antonym of those words.
15. (B) All the rest words are synonym to each other, while wild is antonym to those words.
16. (B) In all the rest pairs the first word is the part of the second word.
17. (D) In all rest pairs, the first word is a part of the second word.
18. (B) In all the rest pairs, the first word is opposite to the second word.
19. (A) In all the rest words, water flows while in lake it is still.
20. (C) All the rest words are synonym to each other, while 'partiality' is antonym of those words.
21. (A) In all the rest pairs, first word is the synonym to the second word, while in (A), the first word is antonym to the second word.

22. (C) All the rest words are synonym to each other, while 'common place' is antonym of those words.

23. (B) All the rest words are synonym to each other, while 'Transperent' is antonym of those words.

24. (D) All the rest words are synonym to each other, while 'Detente' is antonym of those words.

25. (A) In all the rest pairs, second word is a part of the first word.

26. (D) All the other words are synonym to each other, while 'Retrieve' is antonym of those words.

27. (B) In all the other pairs, second item can be used in the presence of first item.

28. (D) In all the other pairs both the articles are of same nature.

29. (C) In all the other pairs both words show blood relation.

30. (A) In all the other pairs, second item can be used in presence of first item.

31. (D) Only in (D) pair, one is living matter and the others is non-living while in all the other pairs both are either living or non-living.

32. (C) All the rest words are synonym to each other.

3 Analogy Test

In this type of test, an effort is made to establish relationship between the two objects. Two objects related in some way are given and third object is also given with four alternative answers. The candidates are required to find out which one of the alternatives bears the same relation with the third object as first and second objects are related.

Example 1. As 'King' is related to the 'Queen', similarly which of the following pairs, bears the same relation ?

(A) Uncle-Niece
(B) Father-daughter
(C) Grand Father-Grand Mother
(D) Dog-Pup

Answer with Explanation (C)—As 'Queen' is the feminine of 'King' in the same way 'GrandMother' is the feminine of 'GrandFather'.

Example 2. As 'Man' is related to 'House', in the same way 'Cow' is related to what ?

(A) Den (B) Cow-pen
(C) Cave (D) House

Answer with Explanation (B)—As the dwelling place for a 'Man' is a 'House' in the same way the dwelling place for 'Cow' is 'Cow-pen'.

Example 3. Ghee, cream and butter are related to which of the following ?

(A) Sweet (B) Curd
(C) Cream (D) Milk

Answer with Explanation (D)—Ghee, cream and butter all are made from Milk.

Example 4. Earth, Saturn, Pluto ?

(A) Uranus (B) Moon
(C) Galaxy (D) Sun

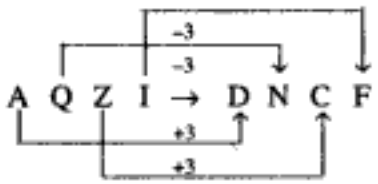
Answer with Explanation (A)—All the objects given in the question are planets of the sun and uranus is also one of the members of that family.

Example 5. AQZI : DNCF : : ROSH : ?

(A) URVK (B) OLPE
(C) ORPK (D) ULVE

Answer with Explanation (D)

As



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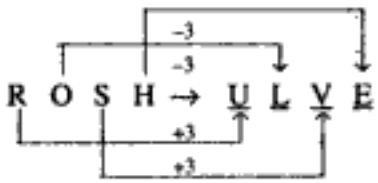


EXERCISE—1

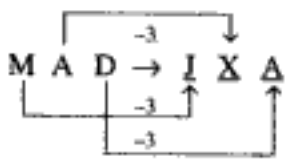
Directions—In each of the following questions from 1 to 30, find the alternative which will replace the question mark.

1. MAD : JXA : : RUN : ?
   (A) OSQ (B) PRJ
   (C) UXQ (D) ORK
2. NOTE : RSXI : : RISK : ?
   (A) VMXP (B) VMWO
   (C) VJMP (D) VMWP
3. TAME : OVHZ : : LUDO : ?
   (A) QZIT (B) GQAM
   (C) GPYJ (D) GOYJ
4. LOVE : KMSA : : HATE : ?
   (A) GXQA (B) DRXD
   (C) ICWI (D) GYQA
5. DIG : CFB : : JOT : ?
   (A) KRY (B) ILM
   (C) ILO (D) KLO

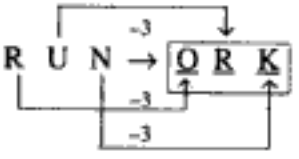
6. DCBA : ZCBE : : HNNS : ?
   (A) ROMI (B) RMOG
   (C) RIMA (D) TMOI
7. TGIR : QJLO : : PKMN : ?
   (A) NMKP (B) MNPK
   (C) OLNM (D) QJKP
8. BYVE : GTQJ : : CXUF : ?
   (A) HSQJ (B) IROL
   (C) HSPK (D) GTRI
9. MNOP : KLMN : : CRAV : ?
   (A) APYT (B) XIZE
   (C) QRST (D) ABCD
10. JOCK : QLXP : : HEAT : ?
    (A) OBTX (B) SVZG
    (C) PHWY (D) SVYF
11. RIDE : LNBE : : HELP : ?
    (A) NINP (B) BAJP
    (C) JPCH (D) BJJP
12. SONG : GONT : : FELT : ?
    (A) TELE (B) TMDG
    (C) TLEG (D) ELTG
13. GERM : MERG : : STAR : ?
    (A) TSRA (B) RTSA
    (C) RTAS (D) TARS
14. CFDG : LOMP : : HKIL : ?
    (A) QTRU (B) QRTU
    (C) PSQT (D) RUSV
15. ZINC : AFSV : : SONI : ?
    (A) TPOJ (B) TRSP
    (C) TLSB (D) RLIB
16. SHIRT : RIHSG : : PARTY : ?
    (A) ORAUL (B) OBQUB
    (C) ORASB (D) TRAPB
17. PRAYER : RUUDIY : : SANJAY : ?
    (A) UOROEF (B) UDROGE
    (C) VORPEG (D) UUROEE
18. NAVIN : POWER : : VIMAL : ?
    (A) XANUP (B) YENUP
    (C) XENZP (D) YENZP
19. SURAJ : RAMAN : : RAJAN : ?
    (A) QBEAR (B) QEEAR
    (C) QEARE (D) QEERA
20. MAHESH : 154362 : : SHAME : ?
    (A) 65231 (B) 65213
    (C) 62513 (D) 62351
21. Appraiser : Building : : Critic : ?
    (A) Judge (B) Master-piece
    (C) Gold (D) Book
22. AG : DK : : CM : ?
    (A) GP (B) HQ
    (C) FQ (D) GQ
23. OUM : UAN : : IER : ?
    (A) OIS (B) EOS
    (C) OPS (D) EIS
24. FUG : GTI : : MNO : ?
    (A) OMP (B) OMR
    (C) OMQ (D) OPQ
25. ARM : ESN : : OWL : ?
    (A) SXN (B) KXT
    (C) UXM (D) UXN
26. EGHI : UKLO : : UMNI : ?
    (A) AQRR (B) EPQO
    (C) ORSU (D) UQRE
27. SWAG : UAWE : : GULP : ?
    (A) ILUP (B) ILUM
    (C) JLUN (D) ILUN
28. FULL : EXGS : : TIER : ?
    (A) ULQY (B) SLZY
    (C) SFZK (D) UFJK
29. SERVANT : QGPXYPR : : KING : ?
    (A) MKPI (B) IKLI
    (C) IGLE (D) IGPI
30. MPNQ : QTRU : : FIGP : ?
    (A) JMKT (B) PKMN
    (C) MPNK (D) PMQN

Answers with Explanation

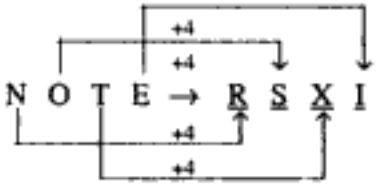
1. (D) As,



Similarly,



2. (B) As,



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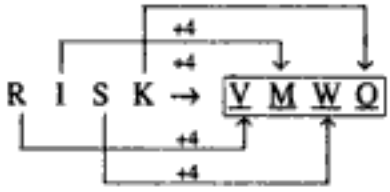
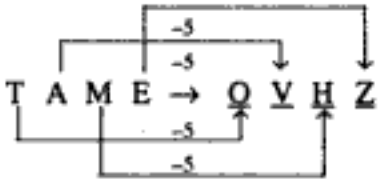


3. (C) As,



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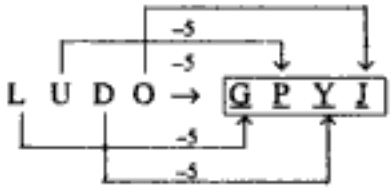
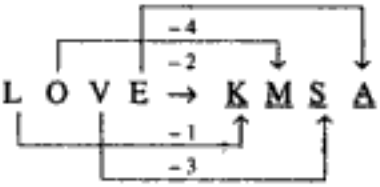


4. (D) As,



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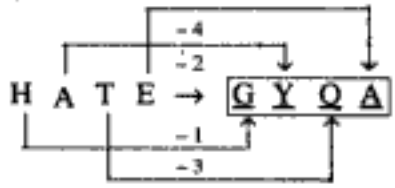
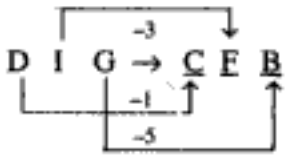


5. (C) As,



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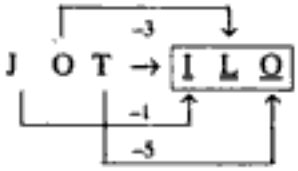
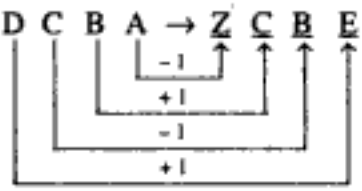


6. (A) As,



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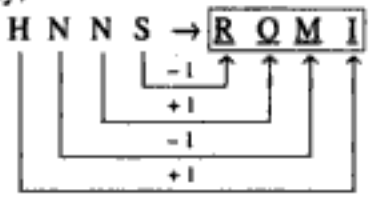
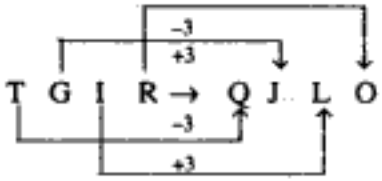
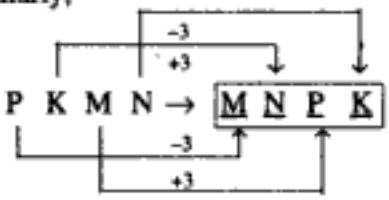


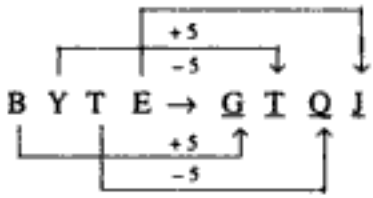
7. (B) As,



Similarly,



8. (C) As,



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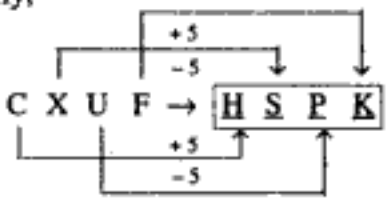
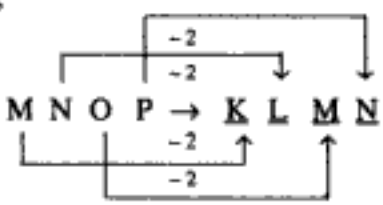


9. (A) As,



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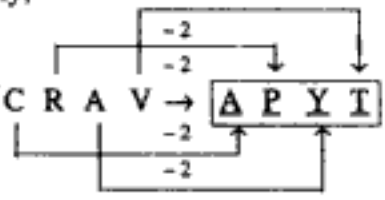


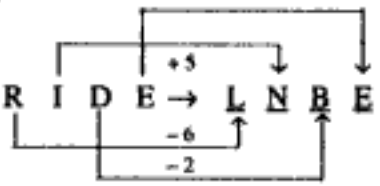
10. (B) As,

JOCK $\xrightarrow{\text{letters from the right hand}}$ QLXP

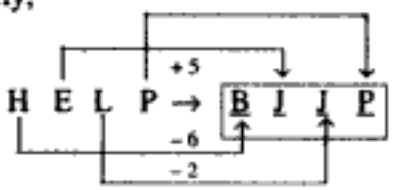
Similarly,

HEAT $\xrightarrow{\text{letters from the right hand}}$ SVZG

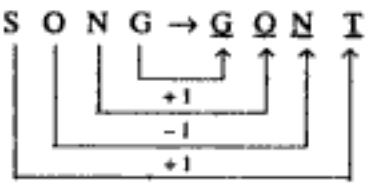
11. (D) As,



Similarly,



12. (B) As,



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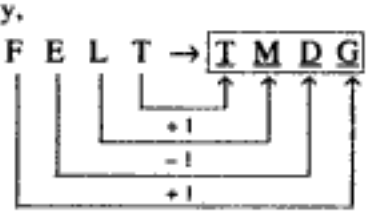


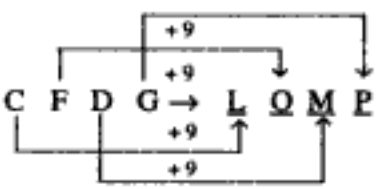
13. (C) As,

G	E	R	M	→	M	E	R	G
1	2	3	4		4	2	3	1

Similarly,

S	T	A	R	→	R	T	A	S
1	2	3	4		4	2	3	1

14. (A) As,



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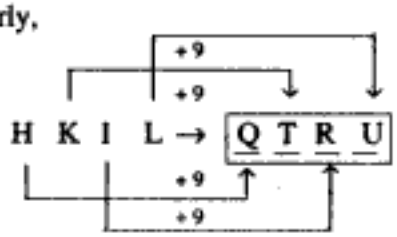
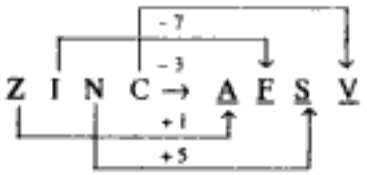


15. (C) As,



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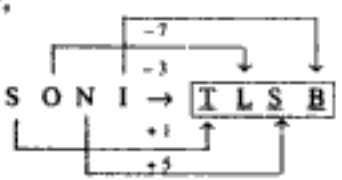
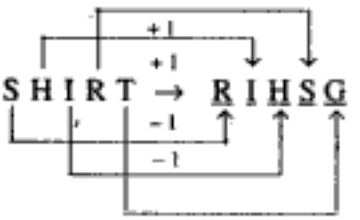
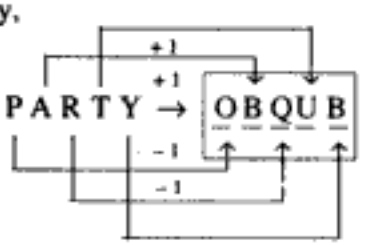


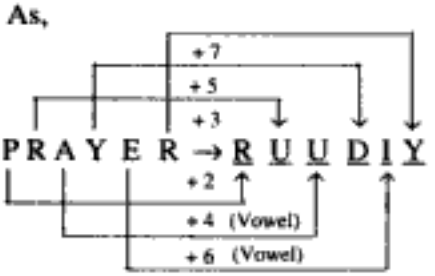
16. (B) As,



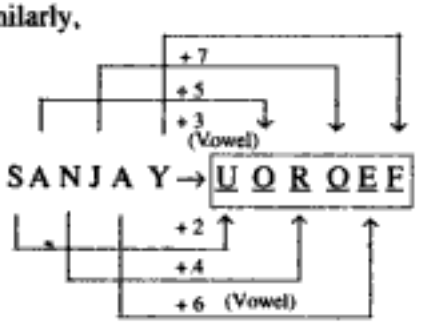
Similarly,



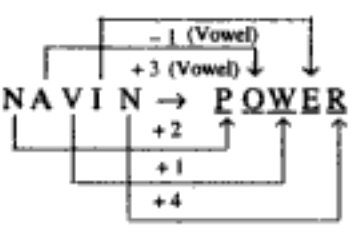
17. (A) As,



Similarly,



18. (A) As,



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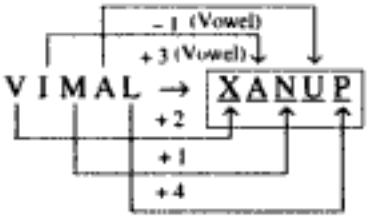
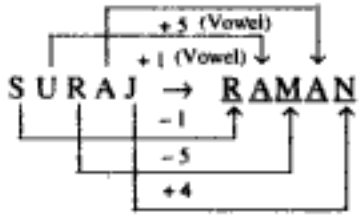


19. (B) As,



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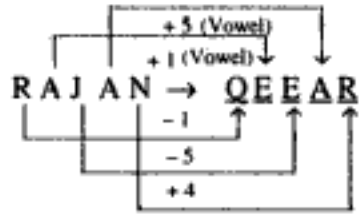


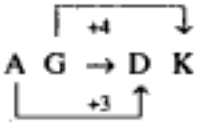
20. (C) Code for

M → 1, A → 5, H → 4, E → 3, S → 6, H → 2

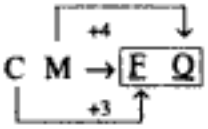
∴ SHAME → 62513

21. (D) As, **Appraiser** evaluate **Building**. In the same way **Critic** evaluate **Book**.

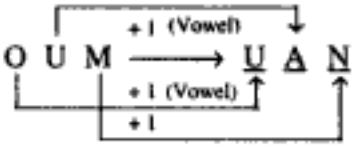
22. (C) As,



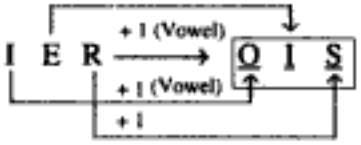
Similarly,



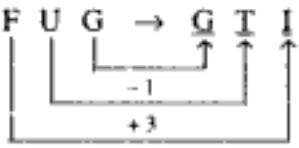
23. (A) As,



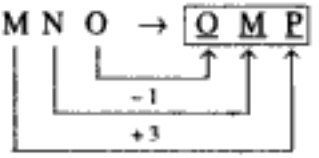
Similarly,



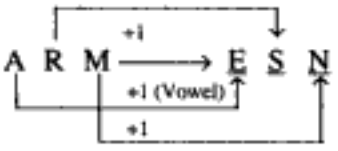
24. (A) As,



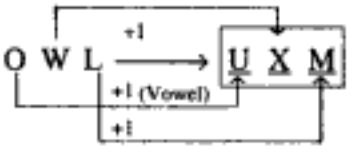
Similarly,



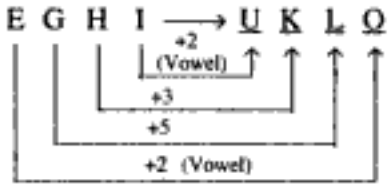
25. (C) As,



Similarly,



26. (D) As,



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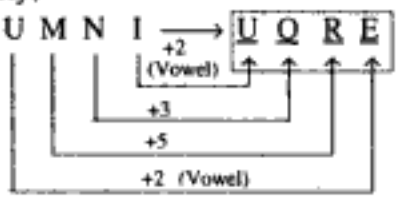
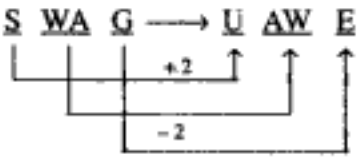


27. (D) As,



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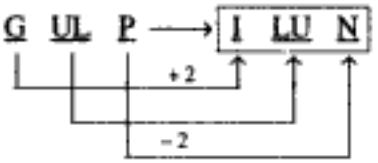
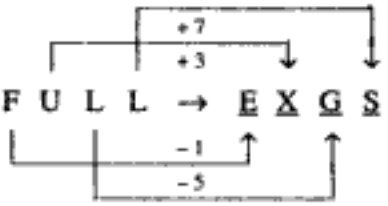


28. (B) As,



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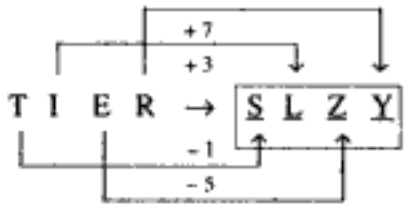
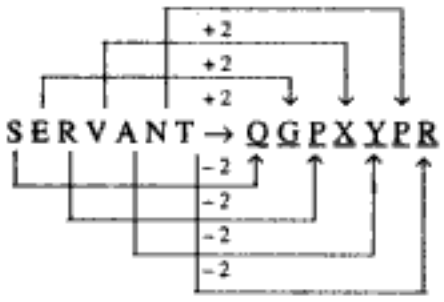


29. (B) As,



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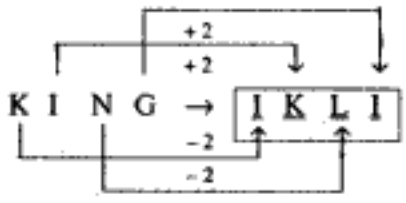
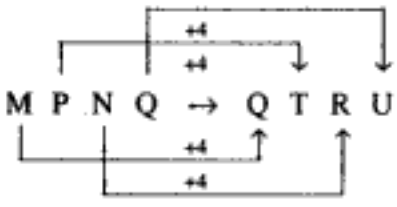


30. (A) As,



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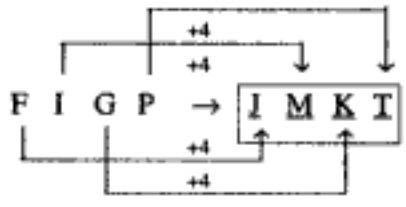


EXERCISE—2

Directions—In each of the following questions from 1 to 30, find the alternative which will replace the question mark.

1. Violet—Yellow; Blue—Red; Indigo— ?
   (A) White (B) Black
   (C) Yellow (D) Orange
2. Pen—Cap; Bottle—Cork; Body— ?
   (A) Cloth (B) Cot
   (C) Food (D) Water
3. Pen—Write; Brush—Teeth; Spade— ?
   (A) Cut (B) Dig
   (C) Wood (D) Iron
4. Draw—Board; Write—Paper; Walk— ?
   (A) Ground (B) Foot
   (C) Stick (D) Food
5. Blue—Moon; White—Hot; Black— ?
   (A) Cloud (B) Sky
   (C) Sheep (D) Star
6. Tight—Loose; Love—Hate; Earth— ?
   (A) Sun (B) Cloud
   (C) Sky (D) Height
7. Cat—Kitten; Goat—Kid; Sheep— ?
   (A) Raven (B) Colt
   (C) Lamb (D) Filly
8. Man—House; Bird—Nest; Fish— ?
   (A) River (B) Hole
   (C) Water (D) Rain
9. Bathroom—Sink;House—Kitchen; Cloister—?
   (A) Monk (B) Statue
   (C) Gate-keeper (D) Pray
10. Temple—Ear; Shoulder—Hand; Gum— ?
    (A) Lip (B) Tongue
    (C) Vein (D) Tooth
11. Examiner—Examinee; Pleader—Client; Preceptor— ?
    (A) Disciple (B) Customer
    (C) Guest (D) Host
12. Cataract—Eye; Jaundice—Liver; Pyorrhoea—?
    (A) Breath (B) Nausea
    (C) Tongue (D) Tooth
13. Dumb—Speak; Deaf—Hear; Bald— ?
    (A) Hand (B) Eye
    (C) Hair (D) Nose
14. Blind—Sight;Paralysis—Motion; Anaemia—?
    (A) Sleep (B) Blood
    (C) Health (D) Loss of apetite
15. Tuberculosis—Lung; Piles—Buttock; Hernia— ?
    (A) Intestine (B) Abdomen
    (C) Kidney (D) Stomach

16. Belt—Waist; Cap—Head; Gloves— ?
(A) Shoulder (B) Forehead
(C) Wrist (D) Hands

17. Mango—Grape; Plum—Pear; Papaya— ?
(A) Orange (B) Garlic
(C) Potato (D) Lemon

18. Magnolia—Jasmine; Lotus—Lily; Balsam— ?
(A) Pandanus (B) Daisy
(C) Rose (D) Marigold

19. Beef—Cow; Mutton—Goat; Pork— ?
(A) Dog (B) Cat
(C) Pig (D) Stag

20. Rice—Paddy; Meal—Wheat; Whey— ?
(A) Ice (B) Butter
(C) Curd (D) Milk

21. Chair—Sit; Plate—Eat; Balance— ?
(A) Liquid (B) Weigh
(C) Article (D) Body

22. Ship—Anchor; Car—Brake; Light— ?
(A) Murcury (B) Switch
(C) Plug (D) Fuse

23. Ring—Finger; Bracelet—Hand; Garland—?
(A) Shoulder (B) Forehead
(C) Neck (D) Ear

24. Cobbler—Shoe; Barber—Hair; Carpenter— ?
(A) Furniture (B) Butcher
(C) Artist (D) Painting

25. Farmer—Farming; Barrister—Law; Confectioner ?
(A) Clean (B) Sweet
(C) Seed (D) Sail

26. Dog—Bitch; Sheep—Ewe; Pig— ?
(A) Porpoise (B) Porcupine
(C) Swine (D) Hound

27. Cow—Byre; Bird—Nest; Spider— ?
(A) Web (B) Pen
(C) Den (D) Group

28. Palace—King; Barrack—Police Force; Aerodrome— ?
(A) Tourist (B) Traveller
(C) Aeroplane (D) Coolie

29. Platform—Train; Stand—Bus; Harbour— ?
(A) Beggar (B) Turner
(C) Boat (D) Ship

30. Pin—Pin cushion; Ink—Inkpot; Pen— ?
(A) Almirah (B) Crayon
(C) Pen cushion (D) Pen stand

Answers with Explanation

1. (D) In spectrum there are three colours missing between violet and yellow. Also three colours are missing between blue and red. Hence, three colours after indigo, there should be orange.
2. (A) Second word of each term covers the first word.
3. (B) As pen is used to write and brush is used to clean teeth similarly spade is used to dig.
4. (A) As board is used to draw and paper is used to write similarly ground is used to walk.
5. (C) First and second words of each term, make an idiom.
6. (C) First word is the opposite of second word in each term.
7. (C) As kitten is the young one of cat and kid is the young one of goat, similarly lamb is the young one of sheep.
8. (C) As man lives in house and bird lives in nest, similarly fish lives in water.
9. (B) As sink is necessary in bathroom and kitchen is necessary in a house, similarly a statue is necessary in a cloister.
10. (D) As temple is connected with ear, and shoulder with hand, similarly gum is connected with tooth.
11. (A) As examiner is related to examinee, pleader is related to client in the same way preceptor is related to disciple.
12. (D) As cataract is the disease of eye, and jaundice is the disease of liver similarly Pyorrhoea is the disease of tooth.

13. (C) As dumb is that who cannot speak and deaf is that who cannot hear similarly bald is that who does not have hair.

14. (B) As blind is the deficiency of sight and paralysis is the deficiency of motion similarly anaemia is the deficiency of blood.

15. (A) As tuberculosis is the disease of lungs and piles is the disease of buttock similarly hernia is the disease of intestine.

16. (D) As belt is used on waist and cap on head similarly gloves are used on hands.

17. (A) As Mango and Grape, each has same number of letters, Plum and Pear each has same number of letters similarly Papaya and Orange each has same number of letters.

18. (B) Second word of each term contains one letter less than first word.

19. (C) As beef is the meat of cow, and mutton is the meat of goat, in the same way pork is the meat of pig.

20. (C) As rice is obtained from paddy, and meal from wheat in the same way whey is obtained from curd.

21. (B) As chair is used to sit, plate is used while eating in the same way balance is used to weigh anything.

22. (B) As ship is stoped by anchor, and car by brake similarly light is controlled by switch.

23. (C) As ring is an ornament for finger and bracelet is for hand similarly garland is for neck.

24. (A) As a cobbler makes shoe and barber cuts hair in the same way carpenter makes furniture.

25. (B) As the profession of a farmer is farming and that of a barrister is to use law in the same way the profession of a confectioner is to make sweets.

26. (C) In each term second word is the feminine of the first word.

27. (A) As the dwelling place of a cow is a byre, and that of a bird is a nest in the same way the dwelling place of a spider is a web.

28. (C) As the dwelling place of a king is a palace and that of police is barrack in the same way aeroplanes stay at aerodrome.

29. (D) As train stops at platform, bus at stand in the same way ship stops at harbour.

30. (D) As pin is kept in pin cushion and ink in inkpot in the same way pen is kept in pen stand.

EXERCISE—3

Directions—In each of the questions from 1 to 20 find out the alternative which will replace the question mark ?

1. but, tub; yap, pay; dial, ?
   (A) liad (B) laid
   (C) dali (D) ladi

2. diaphragm — hra; enunciate — cia; feudalism — ?
   (A) dal (B) eud
   (C) lis (D) ali

3. jar, raj; net, ten; emir, ?
   (A) remi (B) reim
   (C) rime (D) mire

4. tip, pit; gum, mug; emit, ?
   (A) time (B) mite
   (C) teim (D) tiem

5. ward, draw; stop, pots; tame, ?
   (A) team (B) etam
   (C) mate (D) emat

6. dog, gid; net, tan; tub, ?
   (A) bit (B) but
   (C) bot (D) bib

7. wed, wid; met, mit; set, ?
   (A) sut (B) tes
   (C) sit (D) sat

8. Ramesh, Sem; Rashmi, mhs; Chapra, ?
   (A) pra (B) rap
   (C) arp (D) rpa

9. Water, Wutar; Bihar, Behur; Tempo, ?
   (A) Tempa (B) Tampi
   (C) Tampu (D) Tempi

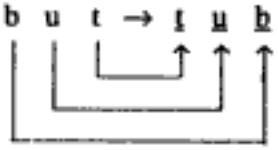
10. dial, laid; liar, rail; yard, ?
    (A) dray (B) rayd
    (C) yrad (D) dyar

11. most, notu; tone, uooe; patna, ?
    (A) quuou (B) qauna
    (C) qauoa (D) qeuoe

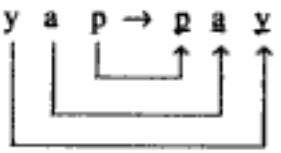
12. plug, qmah; evil, iwom; made, ?
    (A) neeo (B) nuea
    (C) nbef (D) neei
13. leg, gel; dog, god; wed, ?
    (A) ewd (B) wde
    (C) dew (D) dwe
14. sanjay, ajy; mita, ia; dhirendra, ?
    (A) hrnr (B) hrnra
    (C) hinr (D) hedr
15. sanju, snu, nivedita, nvdt; snehal, ?
    (A) snh (B) sea
    (C) sha (D) seh
16. nirmal, rila; shivam, ihma; sahwan, ?
    (A) haan (B) ahna
    (C) hana (D) ahan
17. Meal, Mil; Team, Tim; Seal, ?
    (A) Seli (B) Lis
    (C) Sile (D) Sil
18. Mine, Min; Sine, Sin; Fine, ?
    (A) Fne (B) Fin
    (C) Fein (D) Fen
19. kite, keit; tile, teil; file, ?
    (A) feil (B) fiel
    (C) flei (D) flie
20. Care, Car; Fare, Far; Bare, ?
    (A) Bre (B) Bar
    (C) Ber (D) Bra

Answers with Explanation

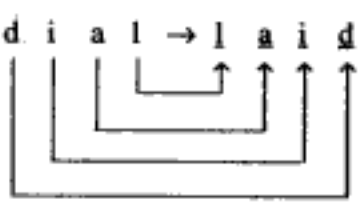
1. (B) As, b u t → t u b



And y a p → p a y



Similarly, d i a l → l a i d

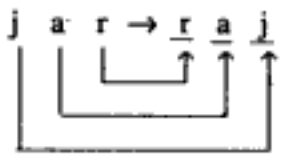


2. (D) As, d i a p h r a g m → h r a
   1 2 3 4 5 6 7 8 9 5,6,7

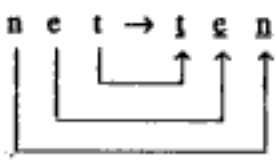
   And e n u n c i a t e → c i a
   1 2 3 4 5 6,7 8 9 5,6,7

   Similarly, f e u d a l i s m → a l i
   1 2 3 4 5, 6, 7 8 9 5,6,7

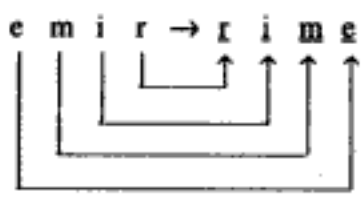
3. (C) As, j a r → r a j



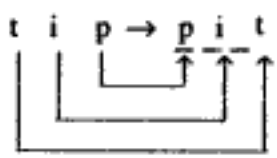
And n e t → t e n



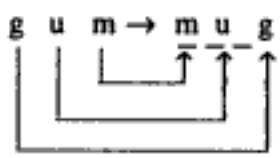
Similarly, e m i r → r i m e



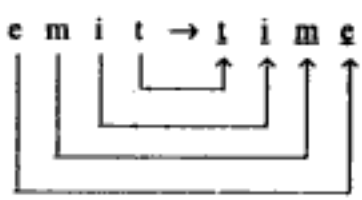
4. (A) As, t i p → p i t



And g u m → m u g



Similarly, e m i t → t i m e

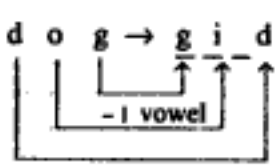


5. (D) As, w a r d → d r a w
   1 2 3 4 4 3 2 1

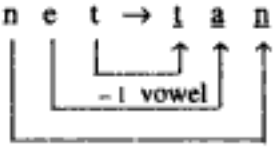
   And s t o p → p o t s
   1 2 3 4 4 3 2 1

   Similarly, t a m e → e m a t
   1 2 3 4 4 3 2 1

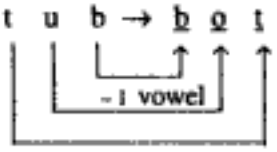
6. (C) As, d o g → g i d



And n e t → t a n



Similarly, t u b → b o t



7. (C) As, w e d → w i d
And m e t → m i t
Therefore, s e t → **s i t**

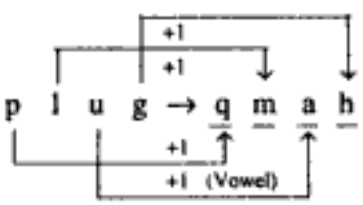
8. (D) As, R a mesh → s e m
1 2 3456 → 5 4 3
And R a shmi → m h s
1 2 3456 → 5 4 3
Therefore C h a p r a → **r p a**
1 2 3 4 5 6 → 5 4 3

9. (B) As, Water → Wutar
And Bihar → Behur
Therefore Tempo → **Tampi**
For each vowel in second word previous vowel is used.

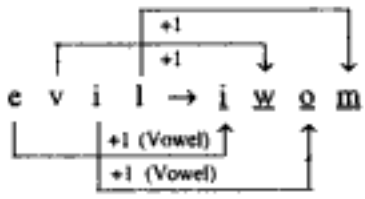
10. (A) As, d i a l → l a i d
1 2 3 4 → 4 3 2 1
And l i a r → r a i l
1 2 3 4 → 4 3 2 1
Similarly, y a r d → **d r a y**
1 2 3 4 → 4 3 2 1

11. (C) As, Most → notu
And tone → uooe
∴ patna → **qauoa**
For each consonant of first word next consonant is used in second word.

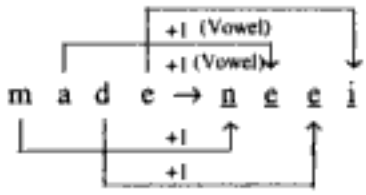
12. (D) As,



And



Similarly,



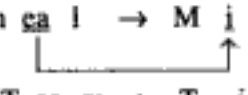
13. (C) As, l e g → g e l
1 2 3 → 3 2 1
And d o g → d o g
1 2 3 → 3 2 1
Similarly, w e d → d e w
1 2 3 → 3 2 1

14. (A) As, sanjay → a j y
123456 → 2 4 6
And mita → i a
1234 → 2 4
Similarly, dhirendra → **h r n r**
123456789 → 2 4 6 8

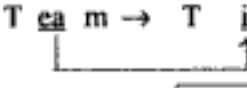
15. (B) As, sanju → s n u
12345 → 1 3 5
And nivedita → n v d t
12345678 → 1 3 5 7
Similarly, sneha l → s e a
123456 → 1 3 5

16. (C) As, n ir m al → r i l a
← ←
And s hi v am → i h m a
← ←
Therefore, s ah w an → h a n a
← ←

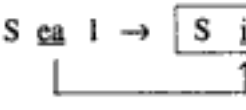
17. (D) As, m ea l → M i l



And T ea m → T i m



Therefore, S ea l → **S i l**



18. (B) As, Mine → Min
And Sine → Sin
Therefore, Fine → **Fin**

19. (A) As, kite → keit
And tile → teil
Therefore, file → **feil**

20. (B) As, Care → Car
And Fare → Far
Therefore, Bare → Bar

EXERCISE—4

1. Find a group similar to 3, 7, 11.
(A) 2, 9, 21 (B) 2, 17, 23
(C) 4, 6, 14 (D) 7, 9, 16

2. Find a group similar to 77, 55, 33.
(A) 45, 30, 20 (B) 70, 60, 45
(C) 60, 40, 35 (D) 85, 75, 65

3. As 675 is related to 929 in the same way 123 is related to .....
(A) 242 (B) 246
(C) 248 (D) 423

4. 36, 35, 34 are related to 15, 20, 25 in the same way 42, 43, 44 are related to—
(A) 17 22 27 (B) 28 13 18
(C) 27 22 17 (D) 18 23 28

5. As 125 is related to 17, 18, 21 in the same way 458 is related to—
(A) 27 28 31 (B) 29 32 33
(C) 30 31 35 (D) 28 29 32

6. As 425 is related to 2, in the same way 613 is related to—
(A) 1 (B) 2
(C) 3 (D) 4

7. As 246 is related to 36, 16, 04 in the same way 357 is related to—
(A) 09 49 25 (B) 49 16 04
(C) 49 25 09 (D) 36 16 04

8. 3 : 24 : : 5 : ?
(A) 61 (B) 122
(C) 34 (D) 128

9. 11 : 17 : : 19 : ?
(A) 23 (B) 27
(C) 33 (D) 21

10. Fraud : Money : : Exercise : ?
(A) Education (B) Read
(C) Sleep (D) Health

11. Money : Poverty : : Education : ?
(A) Knowledge (B) Illiteracy
(C) Greediness (D) Unsuccess

12. Magazine : Editor : : Drama : ?
(A) Director (B) Hero
(C) Heroine (D) Painter

13. Pole : Magnet : : ? : Battery
(A) Cell (B) Power
(C) Terminal (D) Energy

14. Video : Cassettee : : Computer : ?
(A) Reels (B) Floppy
(C) Recordings (D) Files

15. Museum : Curator : : Prison : ?
(A) Warden (B) Monitor
(C) Manager (D) Jailor

16. Hour : Second : : Tertiary : ?
(A) Ordinary (B) Secondary
(C) Primary (D) Intermediary

17. Fire : Ashers : : Explosion : ?
(A) Sound (B) Debris
(C) Fury (D) Flame

18. Parliament : Great Britain : : Congress : ?
(A) U. S. A. (B) Japan
(C) India (D) Netherlands

19. Sports : Logo : : Nation : ?
(A) Emblem (B) Animal
(C) Ruler (D) Anthem

20. Boat : Sail : : Balloon : ?
(A) Rubber (B) Nylon
(C) Rope (D) Hot air

21. Horse : Grass : : Automobile : ?
(A) Smoke (B) Petrol
(C) Brake oil (D) Mobil oil

22. Paw : Cat : : Hoof : ?
(A) Horse (B) Lamb
(C) Elephant (D) Lion

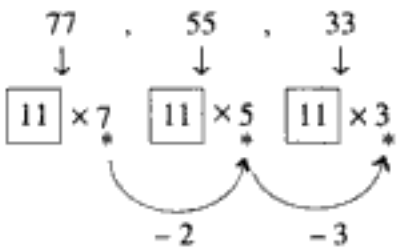
23. Cassock : Priest : : ? : Graduate
(A) Gown (B) Cap
(C) Tie (D) Coat

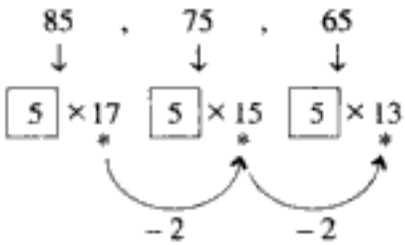
24. Growth : Death : : Increase : ?
(A) Ease (B) Tease
(C) Lease (D) Cease

25. Deep : Shallow : : Freedom : ?
(A) Democracy (B) Convict
(C) Discipline (D) Prison

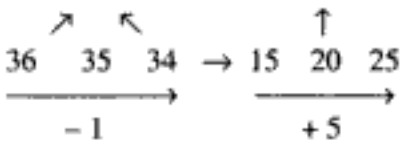
Answers with Explanation

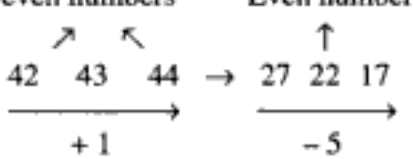
1. (B) All the three numbers in the given group are prime numbers only in (B) all the three numbers are prime numbers. Hence, group given in (B) is similar to the given group.

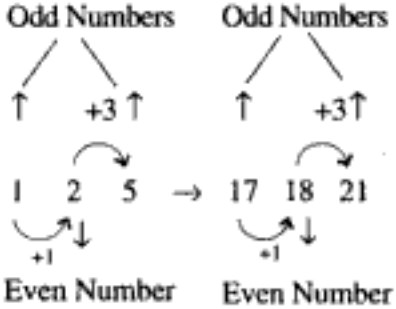
2. (D) As


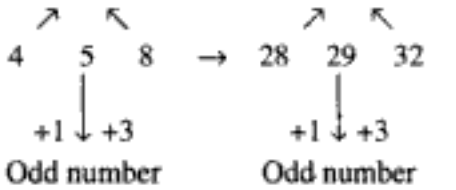
Similarly


3. (A) As $675 \rightarrow 6+7+5 = \boxed{18}$
$\downarrow +2$
and $929 \rightarrow 9+2+9 = \boxed{20}$
In the same way,
$123 \rightarrow 1+2+3 = \boxed{6}$
$\downarrow +2$
and $242 \rightarrow 2+4+2 = \boxed{8}$

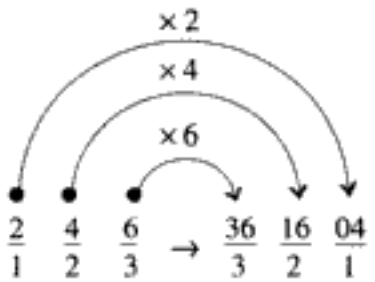
4. (C) As, even numbers → Even number


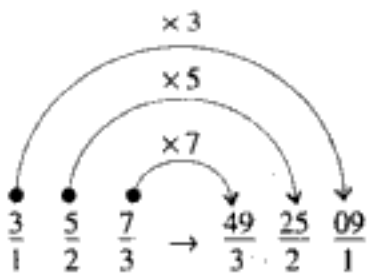
In the same way
even numbers → Even number


5. (D) As, Odd Numbers → Odd Numbers


In the same way
Even numbers → Even numbers


6. (A) As, $425 \rightarrow 4+2+5 = 11$
$11 \rightarrow 1+1 = \boxed{2}$
Similarly, $613 \rightarrow 6+1+3 = 10$
$10 \rightarrow 1+0 = \boxed{1}$

7. (C) As,


In the same way


8. (B) As, $3 \rightarrow (3)^3 - 3 = 27 - 3 = \boxed{24}$
In the same way
$5 \rightarrow (5)^3 - 3 = 125 - 3 = \boxed{122}$

9. (A) As 11 and 17 both are prime numbers in the same way 19 and 23 both are prime numbers.

10. (D) As money is increased by fraud in the same way health is increased by exercise.

11. (B) As money removes poverty in the same way education removes illiteracy.

12. (A) As the responsibility of magazine relies on editor in the same way the responsibility of drama relies on director.

13. (C) As magnetism of a magnet starts from its poles similarly current of battery starts from its terminals.

14. (B) As video is operated by using a cassette in the same way computer is operated by using floppy.
15. (D) As the caretaker of a museum is called a curator in the same way caretaker of a prison is called a jailor.
16. (C) As the smallest unit of hour is second, in the same way the smallest unit of tertiary is called primary.
17. (B) As the after product of fire is ashes, in the same way the after product of explosion is debris.
18. (A) As the parliamentary body of Great Britain is called, 'Parliament' in the same way the parliamentary body of U. S. A. is called 'Congress'.
19. (A) As a particular sign for Sports is called 'Logo' in the same way a particular sign for each Nation is called 'Emblem'.
20. (C) Just as a sail assigns a direction to a boat in the same way a rope assigns a direction to a balloon.
21. (B) Just as a horse feeds on grass in the same way an automobile moves with petrol.
22. (A) As a paw is to cat in the same way hoof is to a horse.
23. (A) As a cassock is to a priest in the same way a gown is to a graduate.
24. (D) As death is opposite to grow in the same way cease is opposite to increase.
25. (C) As deep is opposite to shallow similarly freedom is opposite to discipline.

4 Coding and Decoding Test

In this test letters, words or numbers are given which do not show their own real value but some other, value. For example, 'Tiger is coded as Cat', while tiger can never be compared to Cat in real value. Thus, it implies that they show imaginary values. Thus, the given example that 'Tiger is a Cat' is an imaginary value. These imaginary values are said to be coded values and the process is called coding. This coding is generally based on some particular rule. Candidates are required to find out that rule and convert the coding into correct language or to convert the correct language into coding. This is called 'Decoding'.

How can these questions be solved in less time ? For this each candidate should take care of following points—

The coding of each letter of the word in the question is done by writing the corresponding letter for that particular letter from reverse order.

OR

How has the coded word has been written, by subtracting or adding some particular number of letters for a letter in that word.

This is possible when the imaginary value and the given value for a word is matched.

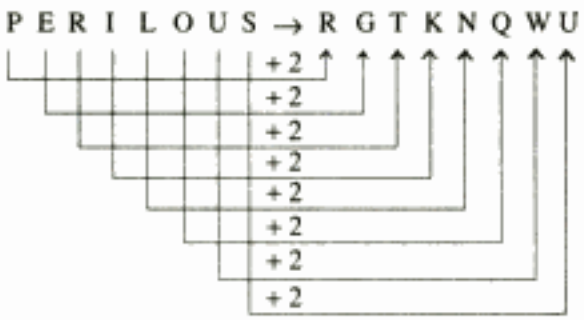
A	B	C	D	E	F	G	H	I	J	K	L	M
↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕
Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The above facts can be made clear by the following examples—

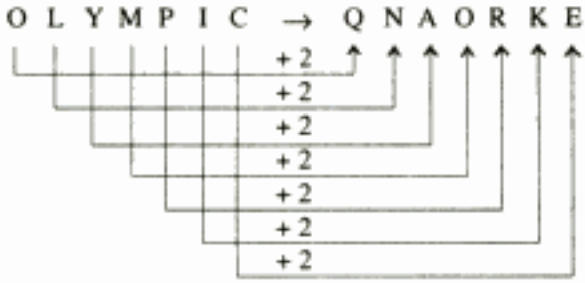
Example 1. If PERILOUS is written as RGTKNQWU in a code language then how will OLYMPIC be written in that language ?

(A) QNOAKRE (B) QONARKE
(C) QNAORKE (D) QKNOARE
(E) QEKOARN

Answer with Explanation (C)



Thus, here it is clear that in each letter of the word PERILOUS, 2-2 letters are added and the code word is obtained. Therefore, we will apply the same rule in the word OLYMPIC to write the code word.



Example 2. If 'MENTAL' is written as 'NVMGZO' in a certain code language then how will 'SILVER' be written in the same code language ?

(A) HROEVI (B) HORVEI
(C) GROVEI (D) GOREVI
(E) None of these

Solution (A)

MENTAL → NVMGZO

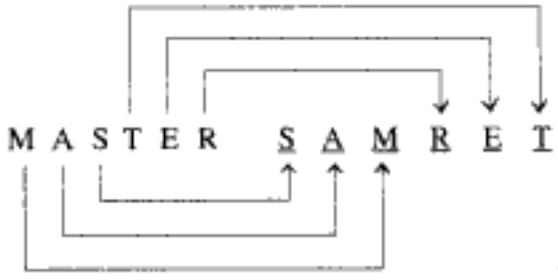
Reverse letter for M is N, for E it is V, for N it is M, for T it is G, for A it is Z and for L it is O. This is the rule applied in the word 'MENTAL'. Thus, the code word for 'SILVER' is obtained by applying the same rule.

Example 3. If in a certain code 'MASTER' is written as 'SAMRET', then how will 'CARROT' be written in the same code ?

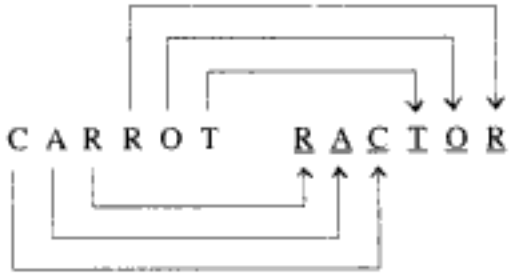
(A) ARMOTR (B) RCATRO
(C) RCATOR (D) None of these

Answer with Explanation (D)

As,



In the same way,



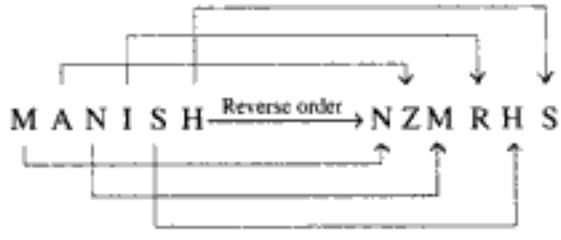
But this answer is not in any alternative.

Example 4. If in a certain code 'MANISH' is written as 'NZMRHS', then how will 'RANJITA' be written in the same code ?

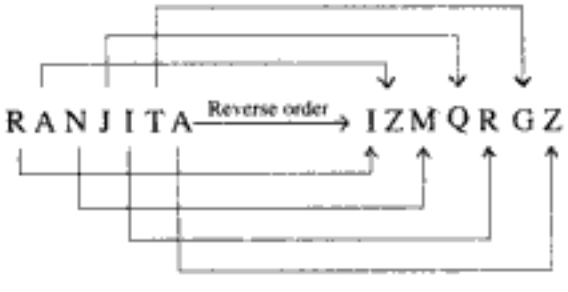
(A) IZMQRGZ (B) IZMPRGZ
(C) IZMQRHZ (D) IZMQRIZ

Answer with Explanation (A)

As,



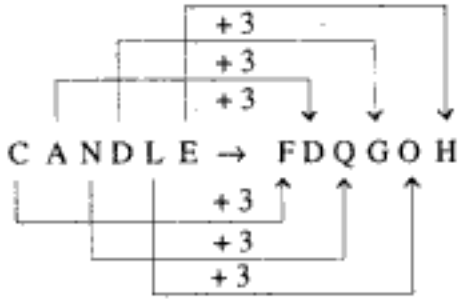
Similarly,



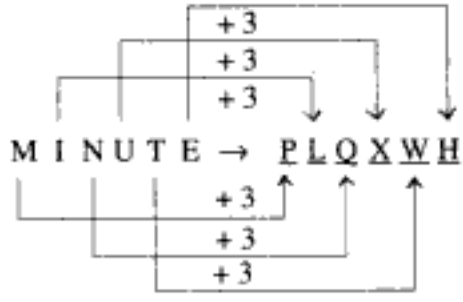
Example 5. If in a certain code 'CANDLE' is written as 'FDQGOH', then how will 'MINUTE' be written in the same code ?

Answer with Explanation (D)

As,



Similarly,



Example 6. If in a certain code 'Kit Mit Fit' means 'I am laborious'; 'Zit Rit Kit' means 'Laborious is dangerous' and 'Sil Fis Kit' means 'Dangerous very troublous' then which word in that code represents 'Is' ?

(A) Kit (B) Zit
(C) Rit (D) None of these

Answer with Explanation (B)

From (i) and (ii) 'Kit' → 'Laborious'.
From (ii) and (iii) 'Rit' → 'Dangerous'
Hence, from (ii) 'Zit' → 'Is'

Example 7. In a certain code '345' means 'Veera is gentle', '579' means 'Veera Kind Hearted' and 126 means 'Kanchan also good' then which digit in that code represents 'Gentle' ?

(A) 3 (B) 4
(C) 5 (D) Cannot be decided

Answer with Explanation (D)

From (i) and (ii) 5 → Veera

Now, in (i) there are two digits and two words left. Now it is very difficult to decide which digits is used for 'Gentle'.

Example 8. If 'Cloud' is coded as 'Rain', 'Rain' is coded as 'Tree', 'Tree' is coded as 'Axe', 'Axe' is coded as 'House' and 'House' is

coded as 'Mason' then from which wood is obtained ?

(A) Tree (B) Rain
(C) Axe (D) None of these

Answer with Explanation (C)

Wood is obtained from tree and tree is coded as 'Axe'. Hence, wood is obtained from 'Axe'.

EXERCISE—1

1. If 'DEAR' is coded as 'FGCT', then how will 'READ' be coded as—
   (A) TGCF (B) FGCF
   (C) TSFC (D) TCGF
2. If 'THRASH' is coded as 'UGSZTG', then how will 'HEAD' be coded ?
   (A) IECD (B) GDZC
   (C) IDBC (D) GDBC
3. If 'SWAMINATHAN' is coded as 'NAHTANIMAWS', then how will 'SIRNAME' be coded ?
   (A) EMAMSIR (B) EMARNIS
   (C) EMNARIS (D) EMANRIS
4. If 'TOMB' is coded as 'MBOR', then how will 'GOAL' be coded ?
   (A) ALOG (B) ALOE
   (C) LOAG (D) EALO
5. If 'CAMERA' is coded as 'CMRCMR' then how will 'CHAPRA' be coded ?
   (A) CARCAR (B) CARHPA
   (C) HPACAR (D) RACRAC
6. If 'DAILY' is coded as 'XKHZC' then how will 'FERTILE' be coded ?
   (A) DKHSEDQS (B) DMHUQFE
   (C) DKHSQDE (D) DJHRQCE
7. If 'MANAGER' is coded as 'QPLPTOB' then how will 'RANGE' be coded ?
   (A) BPLTO (B) BPQTO
   (C) BPTQO (D) BLTPO
8. If 'GOAL' is coded as 'HPBM' and 'FROCK' is coded as 'GSPTL' then how will 'LOFAR' be coded ?
   (A) MPGZO (B) MNEBS
   (C) MPGBS (D) MPEBR
9. If 'CHAMBER' is coded as 'XSZNYVI' then how will 'WLFYOV' be coded ?
   (A) DOVBLE (B) DOUCLF
   (C) DLUBOE (D) DOUBLE
10. If 'TORCH' is coded as 'SXILG', then how will 'MANUAL' be coded ?
    (A) OBFMZN (B) OZEOZN
    (C) OZFMZN (D) NZFMZK
11. If the code of 'PARK' is '5394', code for 'SHIRT' is '17698' and code for 'PANDIT' is '532068', then what will be the code for 'NISHAR' ?
    (A) 266734 (B) 231954
    (C) 201739 (D) 261739
12. If 'INSURE' is coded as $9\bar{5}\dot{1}\dot{3}\bar{9}5$, then how will 'PATRIOT' be coded ?
    (A) $\dot{7}1\bar{2}\dot{9}9\dot{6}\bar{2}$ (B) 7129962
    (C) $\bar{7}1\dot{2}\,\bar{9}9\bar{6}\dot{2}$ (D) $\bar{7}1\dot{2}9\bar{9}\,\bar{6}\dot{2}$
13. If 'SLAUTER' is coded as $\bar{1}3\bar{1}\bar{3}\bar{2}5\dot{9}$, then how will 'POVERTY' be coded ?
    (A) 7645927 (B) $\bar{7}\bar{6}\dot{4}5\dot{9}27$
    (C) $\dot{7}\dot{6}\dot{4}5\dot{9}\bar{2}7$ (D) $\dot{7}\dot{6}\bar{4}5\dot{9}\bar{2}\bar{7}$
14. If 'MARE' is coded as 'NESI' and 'LOVER' as 'MUWIS' then how will 'ABOVE' be coded ?
    (A) BCPWF (B) ECUWI
    (C) EZUTI (D) ZCNWD
15. If 'TAME' is coded as 'SULA' and 'NIDUS' as 'MACOR' then how will 'EMOTIONS' be coded ?
    (A) ALISEIMR (B) DLNSHNMR
    (C) ALISEIOR (D) ANIUEIOT
16. If code for 'FUNTASTIC' is $\dot{6}35\bar{2}1\bar{1}\dot{2}\dot{9}\dot{3}$ and for 'JUNGLE' is $\bar{1}35\dot{7}3\dot{5}$, then how will 'CONJUGATE' be coded ?
    (A) $\dot{3}6\bar{5}\dot{1}37\dot{1}\bar{2}\dot{5}$ (B) $\dot{3}\bar{6}5\bar{1}\dot{3}\dot{7}\dot{1}\dot{2}\dot{5}$
    (C) 365137125 (D) $\dot{3}65\bar{1}3\dot{7}\dot{1}\bar{2}\dot{5}$
17. If 'PEN' is coded as 'TREE', 'TREE' as 'ROAD-ROUTE', 'ROAD-ROUTE' as 'SKY', 'SKY' as 'RAIL-ROUTE' and 'RAIL-ROUTE' as 'POLLUTION' then where does 'AEROPLANE' fly ?
    (A) POLLUTION (B) ROAD-ROUTE
    (C) RAIL-ROUTE (D) SKY

18. If 'MAULVI' is coded as 'PUJARI', 'PUJARI' as 'SENIK', 'SENIK' as 'BEGGAR', 'BEGGAR' as 'RANGKARMI', 'RANGKARMI' as 'SCIENTIST' and 'SCIENTIST' as 'THIEF' then safety of the country should be given to whom ?
(A) SENIK (B) BEGGAR
(C) RANGKARMI (D) SCIENTIST

19. If 'BEAR' is coded as 'FISH', 'FISH' as 'CROW', 'CROW' as 'DOG' 'DOG' as 'ELEPHANT' and 'ELEPHANT' as 'ASS', then who can not remain alive in other place than water ?
(A) FISH (B) ELEPHANT
(C) DOG (D) CROW

20. If 'Library' is coded as 'Court', 'Court' as 'College', 'College' as 'Gymnasium', 'Gymnasium' as 'Chamber' 'Chamber as 'Cinema hall' and 'Cinemahall' as 'Hospital', then where will the cases of the people be decided ?
(A) College (B) Court
(C) Gymnasium (D) Chamber

21. 'Vehicle' is coded as 'Book', 'Book' as 'Flower', 'Flower' as 'Sweet' 'Sweet' as 'House', 'House' as 'Mental Hospital', and 'Mental Hospital' as 'Temple', then where is treasure of huge amount of knowledge hidden ?
(A) Book (B) Sweet
(C) Vehicle (D) Flower

22. If in a certain code '123' means 'I am servant', '279' means 'Servant always merciful' and '684' means 'Poverty a curse', then which digit is used for 'Merciful' ?
(A) 2 (B) 7
(C) 9 (D) Data inadequate

23. If in a certain code '493' means 'Friendship difficult challenge', '961', means, 'Struggle difficult Exam., and '178' means 'Exam believable subject', then which digit is used for 'believable' ?
(A) 7 or 8 (B) 7 or 9
(C) 8 (D) 8 or 1

24. If in a certain code '157' means 'Mother always affectionate', '619' means 'Always fortunate future' and '952' means, 'Mother very fortunate' then which digit is used for 'future' ?
(A) 9 (B) 6
(C) Data inadequate (D) 1

25. If in a certain code '268' means 'Equality and prosperity', '839' means 'prosperity nasty position' and '361' means 'Equality respected position', then for which word the digit '2' is used ?
(A) Respected (B) And
(C) Prosperity (D) Equality

26. If in a certain code '235' means 'Sincerity is Strange', '417' means 'Seeing very difficult' and '268' means 'Sincerity thought imitable' then for which word the digit '6' is used ?
(A) Sincerity or thought
(B) Sincerity
(C) Thought or imitable
(D) Thought

27. If in a certain code 'Sin Min Kin' means 'Wild animal dangerous', 'Min Ken Pit' means 'A pet animal' and 'Kin Pin Pit' means 'Pet and wild' then which word is used for 'Ken' ?
(A) Pet (B) Animal
(C) A (D) And

28. If in a certain code 'Sil Fin Kiel' means 'Money a disturbance', 'Tin Sil Fis' means 'Disturbance hidden misfortune' and 'Kiel teep Ne' means 'A unknown passenger', then which word is used for 'teep' ?
(A) Passenger (B) Unknown
(C) A (D) Data inadequate

29. If in a certain code 'Ti Me Ka' means 'Letter love place' 'Se Ti Na' means 'Love without mercy' and 'Na Ke Tum' means 'Hate opposite mercy' then which word is used for 'without'?
(A) Se (B) Na
(C) Ti (D) Me

30. If in a certain code 'Su Ki Ta' means 'Fruits best diet', 'Ta Te Sha' means 'Change in diet' and 'Ne Pa Su' means 'Best traditional history' then which word is used for 'Sha' ?
(A) Diet or in (B) Change or in
(C) Change (D) Diet

31. If in a certain code 'Pen Den Sen' means 'Happily successful life', 'Sen Ken Men' means 'Successful Hard Secret' and 'Men Pen Chen' means 'Secret happily fact' then which word is used for 'Chen' ?
(A) Secret (B) Happily
(C) Fact (D) Hard

32. If in a certain code '64391' is written as '73482' then how will '218759' be coded ?
(A) 329860 (B) 309688
(C) 127840 (D) 309668

33. If in a certain code '24631' is written as 'GREAT' and '5897' as 'MONK' then how will '84712' be coded ?
(A) OGKAE (B) ORKTG
(C) ORATG (D) OGRTK

34. In a certain code language 'CYLINDER' is written as 'UHGQGJWA', how will 'HYDROGEN' be written in that code ?
(A) QHJROBWF (B) QJHRPBWF
(C) QHJRPBWF (D) QHRJOBWF

35. If in a certain code 'BEAUTY' is written as 'TUBYAE' then how will 'NAKPIT' be written in the same code ?
(A) ITPKAN (B) IPNTKA
(C) IPKNTA (D) IPNTAK

36. If in a certain code language 'PINTU' is written as '80' then how will 'PRIYA' be written in the same code ?
(A) 79 (B) 69
(C) 89 (D) 59

37. If in a certain code 'RAM' is written as 6', then how will 'GOD' be written in the same code ?
(A) – 4 (B) 14
(C) 26 (D) 18

38. If in a certain code 'BAT' is written as '40', then how will 'APE' be written in the same code ?
(A) 80 (B) 70
(C) 100 (D) 120

39. If in a certain code 'ZOOM' is written as '13', then how will 'PUSA' be written in the same code ?
(A) 15 (B) 16
(C) 13 (D) 18

40. If in a certain code 'RATLAM' is written as '2', then how will 'PADMINI' be written in the same code ?
(A) 4 (B) 3
(C) 5 (D) 6

Directions—Read the following statements carefully and then answer the questions 41 and 42.

In a certain code 'Ten Men Ken Sen' means 'He believes in God', 'Men Fen Sen' means 'God believes optimist', 'Men Ten Zen' means 'He believes Friendship' and 'Fen Ben Hen' means, 'Optimist always happiness'.

41. For which word, it is difficult the code ?
(A) God (B) Optimist
(C) Happiness (D) In
(E) None of these

42. What is the code for 'optimist believes Friendship' ?
(A) Data inadequate
(B) Fen Men Ten
(C) Fen Men Zen
(D) Sen Fen Ten
(E) None of these

Directions—Read the following statements carefully and then answer the questions 43 and 44.

In a certain Code 'Ku Fe Te Pa' means 'He is eating now', 'Te Sa Ku' means 'Eating is necessary', 'Pa No Ti' means 'He was serious' and 'Ti Te Re' means 'Is work was'.

43. Which of the following word is definitely coded ?
(A) Eating (B) He
(C) Necessary (D) Is
(E) All of these

44. For which of the following the code 'Re No Ku' is used ?
(A) Serious eating work
(B) Work serious eating
(C) Eating was work
(D) Data inadequate
(E) None of these

Directions—Read the following statements carefully and answer the questions from 45 to 46.

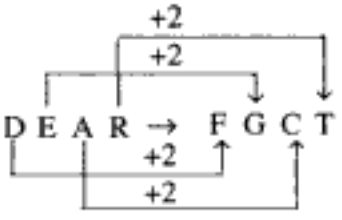
(i) '735' means 'you are dear'
(ii) '682' means 'cleanliness very fine'
(iii) '251' means 'you fine politician'

45. Which digit is used for 'you' ?
(A) 3 (B) 1
(C) 2 (D) 5
(E) Data inadequate

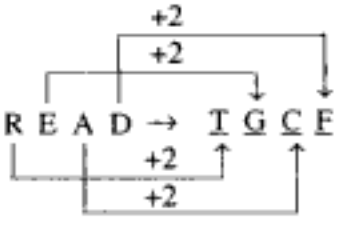
46. Which one of the statements given above is not necessary to answer the question 45.
(A) Only III (B) Only I
(C) Only II or III (D) Only I or III
(E) None of these

Answers with Explanation

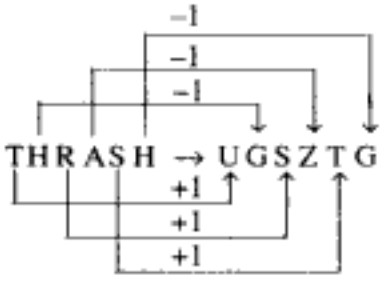
1. (A) As,



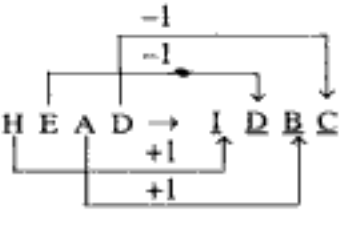
Similarly,



2. (C) As,



Similarly,



3. (D) As,

S W A M I N A T H A N
1 2 3 4 5 6 7 8 9 10 11

→ N A H T A N I M A W S
11 10 9 8 7 6 5 4 3 2 1

Similarly,

S I R N A M E → E M A N R I S
1 2 3 4 5 6 7 → 7 6 5 4 3 2 1

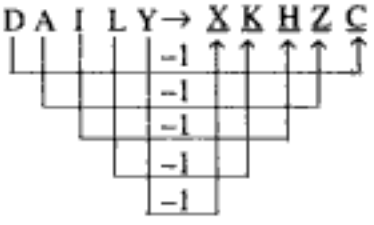
4. (B) As T O M B → M B O R
1 2 3 4 → 3 4 2 1
−2

Similarly, G O A L → A L O E
1 2 3 4 → 3 4 2 1
−2

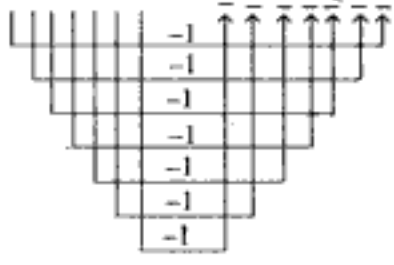
5. (A) As, C A M E R A → C M R C M R
1 2 3 4 5 6 → 1 3 5 1 3 5

Similarly, C H A P R A → C A R C A R
1 2 3 4 5 6 → 1 3 5 1 3 5

6. (C) As,



Similarly, FERTILE → DKHSQDE



7. (A) M A N A G E R → Q P L P T O B
On comparing we get M = Q, A = P, N = L, G = T, E = O and R = B
∴ RANGE = BPLTO

8. (C) G O A L → H P B M
F R O C K → G S P T L
On comparing we get, G = H, O = P, A = B, L = M, F = G, R = S, O = P, C = D and K = L
∴ LOFAR = MPGBS

9. (D)
C H A M B E R —(letters in reverse order of alphabet)→ X S Z N Y V I
∴ WLFYOV —(letters in reverse order of alphabet)→ DOUBLE

10. (C) As,
T O R C H —(letters in reverse order of alphabet)→ S X I L G
1 2 3 4 5 → 5 4 3 2 1

Similarly,
M A N U A L —(letters in reverse order of alphabet)→ O Z F M Z N
1 2 3 4 5 6 → 6 5 4 3 2 1

11. (D) PARK → 5394
SHIRT → 17698
PANDIT → 532068
On comparing
N = 2, I = 6, S = 1, H = 7, A = 3 and R = 9
∴ NISHAR → 261739

12. (C) From INSURE
I → 9
N → 14 → 1 + 4 = $\bar{5}$
S → 19 → 1 + 9 = 10 = $\dot{1}$
U → 21 → 2 + 1 = 3 = $\dot{3}$
R → 18 → 1 + 8 = $\bar{9}$
E → 5
∴ INSURE → $9\bar{5}\dot{1}\dot{3}\bar{9}5$.
and from PATRIOT
P → 16 → 1 + 6 = $\bar{7}$
A → 1
T → 20 → 2 + 0 = $\dot{2}$
R → 18 → 1 + 8 = $\bar{9}$
I → 9
O → 15 → 1 + 5 = $\bar{6}$
T → 20 → 2 + 0 = $\dot{2}$
∴ PATRIOT → $\bar{7}1\dot{2}\bar{9}9\bar{6}\dot{2}$

13. (D) From SLAUTER
S → 19 → 1 + 9 = 10 = $\bar{1}$
L → 12 → 1 + 2 = $\dot{3}$
A → 1
U → 21 → 2 + 1 = $\bar{3}$
T → 20 → 2 + 0 = $\bar{2}$
E → 5
R → 18 → 1 + 8 = $\dot{9}$
∴ SLAUTER = $\bar{1}3\bar{1}\bar{3}\,\bar{2}5\dot{9}$
and from POVERTY
P → 16 → 1 + 6 = $\dot{7}$
O → 15 → 1 + 5 = $\dot{6}$
V → 22 → 2 + 2 = $\bar{4}$
E → 5
R → 18 → 1 + 8 = $\dot{9}$
T → 20 → 2 + 0 = $\bar{2}$
Y → 25 → 2 + 5 = $\bar{7}$
∴ POVERTY = $\dot{7}\dot{6}\bar{4}5\dot{9}\bar{2}\,\bar{7}$

14. (B) MARE → NESI
and LOVER → MUWIS
On comparing we get in code for each consonant, next consonant is used and for each vowel next vowel is used.
∴ ABOVE = ECUWI

15. (A) TAME → SULA
and NIDUS → MACOR
On comparing we get in code for each consonant, previous consonant and for each vowel, previous vowel is used.
∴ EMOTIONS → ALISEIMR

16. (D) From FUNTASTIC
F → $\dot{6}$
U → 21 → 2 + 1 = 3
N → 14 → 1 + 4 = 5
T → 20 → 2 + 0 = $\bar{2}$
A → 1
S → 19 → 1 + 9 = 10 = $\bar{1}$
T → 20 → 2 + 0 = $\bar{2}$
I → $\dot{9}$
C → $\dot{3}$
∴ FUNTASTIC → $\dot{6}35\bar{2}1\,\bar{1}\,\bar{2}\dot{9}\dot{3}$
And from CONJUGATE
C → $\dot{3}$
O → 15 → 1 + 5 = 6
N → 14 → 1 + 4 = 5
J → 10 → 1 + 0 = $\bar{1}$
U → 21 → 2 + 1 = 3
G → $\dot{7}$
A → $\dot{1}$
T → 20 → 2 + 0 = $\bar{2}$
E → $\dot{5}$
∴ CONJUGATE → $\dot{3}65\bar{1}\dot{3}\dot{1}\bar{2}\dot{5}$

17. (C) Since, aeroplane flies in sky and sky is coded as rail-route, therefore, aeroplane will fly in rail-route.

18. (B) Since the safety of the country is in the hand of 'Senik' and 'Senik' is coded as 'Beggar', therefore, the safety of the country is in the hand of beggar.

19. (D) Among the given creatures only fish can not remain alive in other place than water and fish is coded as 'crow'. Hence, crow cannot remain alive in other place than water.

20. (A) The cases of the people are decided in 'Court' and 'Court' is coded as 'College'. Therefore the cases of the people will be decided in 'College'.

21. (D) Since, the treasure of huge amount of knowledge is hidden in book and 'Book' is coded as 'Flower', hence the huge amount of knowledge is hidden in flower.

22. (D) 123 → I am servant ...(i)
279 → Servant always merciful ...(ii)
and 684 → Poverty a curse ...(iii)
From (i) and (ii)
servant → 2
Now, it is not possible to decide which digit is used for merciful.

23. (A)
493 → Friendship difficult challenge ...(i)
961 → 'Struggle difficult Exam ...(ii)
178 → 'Exam believable subject ...(iii)
From (ii) and (iii), Exam → 1
∴ From (iii) Believable → 7 or 8

24. (B)
157 → Mother always affectionate ...(i)
619 → Always fortunate future ...(ii)
952 → Mother always fortunate ...(iii)
From (i) and (ii) always → 1
From (i) and (iii) fortunate → 9
Now, from (ii) future → 6

25. (B)
'268' → Equality and Prosperity ...(i)
'839' → Prosperity nasty position ...(ii)
'361' → Equality respected position ...(iii)
From (i) and (iii) 6 → Equality and from (i) and (ii) 8 → Prosperity
∴ From (i) 2 → and

26. (C) 235 → Sincerity is strange ...(i)
417 → Seeing very difficult ...(ii)
268 → Sincerity thought imitable ...(iii)
From (i) and (iii) 2 → sincerity
∴ From (iii) 6 → either thought or imitable.

27. (C)
Sin Min Kin → Wild animal dangerous ...(i)
Min Ken Pit → A pet animal ...(ii)
Kin Pin Pit → pet and wild ...(iii)
From (i) and (ii) Min → animal
From (ii) and (iii) Pit = Pet
∴ From (ii) Ken → A

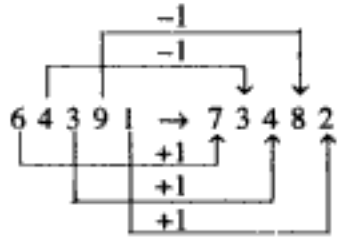
28. (D) Sil Fin Kiel → Money a disturbance ...(i)
Tin Sil Fis → Disturbance hidden misfortune ...(ii)
Kiel teep Ne → A unknown passenger ...(iii)
From (i) and (iii) Kiel → A
∴ It is not possible to find from (iii) that which word is used for teep.

29. (A)
Ti Me Ka → Letter love place ...(i)
Se Ti Na → Love without mercy ...(ii)
Na Ke Tum → Hate opposite mercy ...(iii)
From (i) and (ii) Ti → Love
From (ii) and (iii) Na → mercy
∴ From (ii) Se → Without

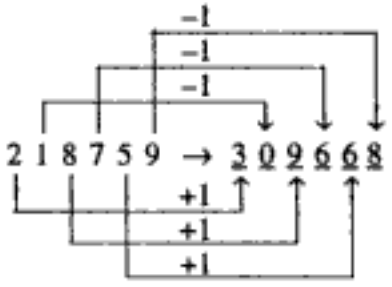
30. (B)
Su Ki Ta → Fruits best diet ...(i)
Ta Te Sha → Change in diet ...(ii)
Ne Pa Su → Best traditional history ...(iii)
From (i) and (ii) Ta → Diet
∴ From (ii) Sha → 'Change' or 'In'

31. (C) Pen Den Sen → Happily successful life ...(i)
Sen Ken Men → Successful hard secret ...(ii)
Men Pen Chen → Secret happily fact ...(iii)
From (i) and (iii)
Pen → Happily
From (ii) and (iii)
Men → Secret
∴ From (iii) Chen → Fact

32. (D) As,

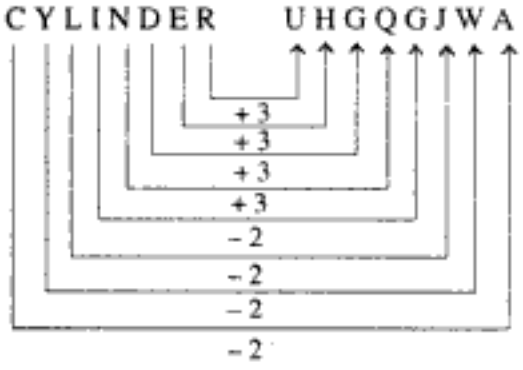


In the same way,

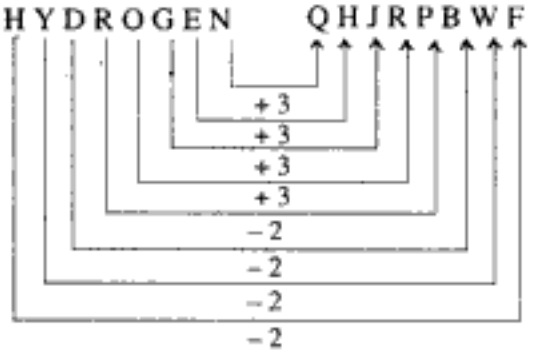


33. (B) On comparing 24631 → GREAT and 5897 → MONK we get, O → 8, R → 4, K → 7, T → 1 and G → 2
∴ 84712 → ORKTG

34. (C) As,



Similarly,



35. (B) As, $\frac{B\ E\ A\ U\ T\ Y}{1\ 2\ 3\ 4\ 5\ 6} \rightarrow \frac{T\ U\ B\ Y\ A\ E}{5\ 4\ 1\ 6\ 3\ 2}$
Similarly, $\frac{N\ A\ K\ P\ I\ T}{1\ 2\ 3\ 4\ 5\ 6} \rightarrow \frac{I\ P\ N\ T\ K\ A}{5\ 4\ 1\ 6\ 3\ 2}$

36. (B) As, PINTU ⇒ P + I + N + T + U
⇒ 16 + 9 + 14 + 20 + 21
= 80
Similarly, PRIYA ⇒ P + R + I + Y + A
⇒ 16 + 18 + 9 + 25 + 1
= 69

37. (D) As, RAM ⇒ (R + A) − (M)
⇒ (18 + 1) − (13)
⇒ 19 − 13 = 6
Similarly, GOD ⇒ (G + O) − (D)
⇒ (7 + 15) − (4)
⇒ 22 − 4
= 18

38. (A) As, BAT ⇒ B × A × T
⇒ 2 × 1 × 20
= 40
Similarly, APE ⇒ A × P × E
⇒ 1 × 16 × 5
= 80

39. (C) As, ZOOM ⇒ (Z + O) − (O + M)
⇒ (26 + 15) − (15 + 13)
⇒ (41) − (28)
= 13
Similarly, PUSA ⇒ (P + S) − (U + A)
⇒ (16 + 19) − (21 + 1)
⇒ 35 − 22
= $\boxed{13}$

40. (B) As,
RATLAM ⇒ R + A + T + L + A + M
⇒ 18 + 1 + 20 + 12 + 1 + 13
⇒ 65 ⇒ 6 + 5
⇒ 11 ⇒ 1 + 1
= 2
Similarly,
PADMINI ⇒ P + A + D + M + I + N + I
⇒ 16 + 1 + 4 + 13 + 9 + 14 + 9
⇒ 66 ⇒ 6 + 6
⇒ 12 ⇒ 1 + 2
= $\boxed{3}$

For Q. 41 and 42
Ten Men Ken Sen →
He believes in God ...(i)
Men Fen Sen → God believes optimist ...(ii)
Men Ten Zen →
He believes Friendship ...(iii)
Fen Ben Hen →
Optimist always happiness ...(iv)
From (ii) and (iii) believes → Men
From (i) and (ii) God → Sen
Now, from (ii) optimist → Fen
From (i) and (iii) He → Tan
∴ From (iii) Friendship → Zen
and from (i) in → Ken
and from (iv) it is not possible for 'happiness' and 'always'.

41. (C)

42. (C)

optimist	believes	Friendship
↓	↓	↓
Fen	Men	Zen

For 43 and 44

Ku Fe Te Pa → He is eating now ...(i)
Te Sa Ku → Eating is necessary ...(ii)
Pa No Ti → He was serious ...(iii)
Ti Te Re → Is work was ...(iv)
From (ii) and (iv) Is → Te
From (i) and (ii) Eating → Ku
Now, from (ii) necessary → Sa
From (i) and (iii) He → Pa
From (iii) and (iv) was → Ti
∴ From (iii) serious → No
and from (iv), work → Re

43. (E)
44. (B) Re no Ku → work serious Eating

For Q. 45 and 46

735 → you are dear ...(i)
682 → cleanliness very fine ...(ii)
251 → you fine politician ...(iii)

From (i) and (iii)
you → 5
Since, from (i) and (iii) 'you' for '5' is known hence, (ii) is not necessary.

45. (D)
46. (E)

5 Number and Alphabetical Series Test

Number Series Test—In this type of test a series of numbers is given. The candidate has to find out the number of times the given digit occurs under certain conditions.

Example—How many such 6's are there in the following number series which are followed by an even number and preceded by any odd number ?

3 6 4 5 7 6 3 5 4 3 6 4 5 6 4 1 6 3 9 6 3 4 5 6

(A) None (B) One
(C) Two (D) Three

Answer with Explanation (D) : Required 6's are printed boldly in the series.

3 **6** 4 5 7 6 3 5 4 3 **6** 4 5 **6** 4 1 6 3 9 6 3 4 5 **6**

Alphabet Series Test—In this type of test a series of letter is given which is not in proper sequence. The candidate has to find out the number of times the given letter occurs under certain conditions.

Example. How many M's are there in the following letter series which are not immediately preceded by H but immediately followed by R ?

HPMXTMRHMRCKMHPTLMRNUS

(A) 3 (B) 5
(C) 1 (D) 2

Answer with Explanation (D) : Such M's which are not immediately preceded by H but immediately followed by R, are boldly printed in the following letter series.

HPMXTMRHMRCKMHPTLMRNUS

EXERCISE

1. How many such 7's are there in the following number series which are not followed by 4 but preceded by 5 ?
   6 5 7 2 3 5 7 1 2 5 7 3 4 3 5 6 5 4 5 7 6 5 7 4 5 7
   (A) 2 (B) 3
   (C) 4 (D) None of these
2. How many such 3's are there in the following number series which are preceded by 4 but not followed by 8 ?
   4 2 8 4 3 2 3 4 3 8 7 5 4 3 8 2 5 4 3 2 4 3 2 7
   (A) 4 (B) 3
   (C) 5 (D) 2
3. In the following number series how many times have 2, 3 and 8 come together in such a way that 2 is in the middle and 3 and 8 are at extreme positions ?
   2 4 5 2 3 8 2 3 4 6 7 3 2 8 8 2 3 4 5 6 8 2 3 6 2 8 3 2 8
   (A) 3 (B) 2
   (C) More than 4 (D) 4
4. In the following series how many times the sum of two consecutive digits is even ?
   1 2 3 4 6 3 4 2 5 9 3 6 7 4 1 2 3 6 7 6 5 4 3
   (A) 3 (B) 4
   (C) 5 (D) 2
5. In the following series how many times an odd number is followed by two consecutive even numbers ?
   4 2 3 2 5 4 2 5 3 2 6 4 3 5 7 2 8 6 7 9 4 5 4 2 9 6 1 3 2
   (A) 4 (B) More than 4
   (C) 2 (D) 3
6. In the following number series, how many such 6's are there which are divisible by its just preceding and following numbers ?
   4 6 3 2 5 6 3 7 5 3 6 2 7 5 3 6 4 5 2 6 7 1 2 6 4 3 2 6
   (A) 2 (B) 1
   (C) 3 (D) 4
7. In the following number series, how many such 8's are there which are divisible by its just preceding number but not divisible by its just following number ?
   2 8 4 3 2 8 5 4 8 2 6 7 8 5 8 2 4 8 2 6 8 2 4 8 6 7 8 2
   (A) 2 (B) 3
   (C) 1 (D) None of these

8. In the following number series how many such 5's are there which are neither preceded by 3 nor followed by 7 ?

2 7 5 3 4 5 7 6 3 5 2 1 2 5 4 6 5 9 3 5 7 5

(A) 4 (B) 5
(C) 3 (D) 2

9. In the following number series how many such 7's are there which are preceded by an odd number and followed by an even number ?

2 4 5 3 7 6 3 2 5 7 3 5 4 2 3 4 5 3 6 7 3 5 7 3 9 3

(A) 2 (B) 3
(C) 1 (D) None

Directions—Each of the questions from 10 to 12 is based on the following number series.

7 3 2 9 5 7 4 1 3 6 4 9 5 4 6 5 2 7 2 4 1 6 7 2 1 3

10. How many such odd digits are there in the given series which are followed by an odd digit ?

(A) 4 (B) 6
(C) More than 6 (D) 3

11. How many such even digits are there in the given series which are preceded by an odd number and followed by an even number ?

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

12. How many such odd digits are there in the given series which are preceded and followed by any even digit ?

(A) 4 (B) 2
(C) 5 (D) 3

13. In the following number series how many 4's are there which are preceded by a prime number but not followed by a prime number ?

3 4 9 5 4 2 6 3 8 4 5 3 2 4 3 6 5 4 8 3 5 4 3 9 2 3 7 4 3

(A) 3 (B) 1
(C) 2 (D) None of these

14. How many such groups of 3 digits are there in the following number series in which middle digit is an even number while atleast one of the two remaining digits is an odd number ?

3 4 3 2 4 2 3 5 1 7 2 5 9 6 4 3 5 8 2 1 4 6 5 6 7 4

(A) 6 (B) 5
(C) 4 (D) More than 6

15. In the following series how many such 1's are there which are preceded by an odd number and this odd number is preceded by a prime number ?

4 3 5 1 6 3 1 2 7 1 4 9 3 1 7 8 9 3 1 5 4 1 3 2 5 1

(A) 3 (B) 2
(C) 4 (D) None of these

16. In the following number series how many such groups of 4, 5 and 9 are there in which prime number of these three digits must be in the middle ?

4 5 9 6 9 4 5 7 4 9 5 6 7 4 9 5 4 3 5 9 4 4 9 5 5 4 9

(A) 3 (B) 4
(C) 2 (D) More than 4

17. In the following series, how many such even digits are there which are preceded by any prime number but not followed by an even number ?

4 6 3 6 4 9 5 7 5 6 4 6 8 2 4 7 5 6 7 6 9 5 3 2

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

18. In the following letter series how many such groups of L, S and W are there in which W should be the middle of the group ?

M L W S A L S W N B Q W S L W P L S N O L W T R W S L

(A) 2 (B) 3
(C) 4 (D) None of these

19. How many such N's are there in the following series which are preceded by M and thus M is not preceded by R ?

P N R R M N S T N M R R M N Q L N M R M N Q P L N M R M N R

(A) None (B) 3
(C) 2 (D) 1

20. How many such H's are in the series, which are preceded by P and followed by E ?

P H C R Q P H E T P H L H C P E H P S R Q E H P H C P H

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

21. How many such R's are there in the series, which are followed by H ?

L R M Q R H P R H J R T V R I U R H W R H X R H

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

22. How many such K's are there in the series, which are preceded by P and followed by T ?
R K L P U K L G T K P K L T V K P R S Q K B E R K P T K
(A) 1 (B) 2
(C) 3 (D) None

23. How many X's are in the following series which are preceded by E and followed by N ?
P E X R T N E X L R E N X U P E X T A X F E X L N E X
(A) 2 (B) 3
(C) 1 (D) None of these

Answers with Explanation

1. (C) Reqd. 7's are printed boldly in the following number series :
6 5 **7** 2 3 5 **7** 1 2 5 **7** 3 4 3 5 6 5 4 5 **7** 6 5 7 4 5 7

2. (B) Reqd. 3's are printed boldly in the following number series :
4 2 8 4 **3** 2 3 4 3 8 7 5 4 3 8 2 5 4 **3** 2 4 **3** 2 7

3. (C) Reqd. numbers are printed boldly in the following number series :
2 4 5 2 3 **8 2 3** 4 6 7 **3 2 8 8 2 3** 4 5 6 **8 2 3** 6 2 8 **3 2 8**

4. (B) Reqd. digits are printed boldly in the following number series :
1 2 3 **4 6** 3 **4 2** 5 9 3 6 7 4 1 2 3 6 7 6 5 4 3

5. (A) Reqd. numbers are printed boldly in the following number series :
4 2 3 2 **5 4 2** 5 3 **2 6** 4 3 5 **7 2 8** 6 7 9 4 **5 4 2** 9 6 1 3 2

6. (B) Reqd. 6's are printed boldly in the following number series :
4 6 3 2 5 6 3 7 5 3 **6** 2 7 5 3 6 4 5 2 6 7 1 2 6 4 3 2 6

7. (A) Reqd. 8's are printed boldly in the following number series :
2 8 4 3 2 8 5 4 8 2 6 7 8 5 8 2 4 8 2 6 8 2 4 **8** 6 7 8 2

8. (C) Reqd. 5's are printed boldly in the following number series :
2 7 **5** 3 4 5 7 6 3 5 2 1 2 **5** 4 6 **5** 9 3 5 7 5

9. (C) Reqd. 7's are printed boldly in the following number series :
2 4 5 3 7 6 3 2 5 7 3 5 4 2 3 4 5 3 6 7 3 5 7 3 9 3

10. (B) Reqd. odd digits are printed boldly in the following number series :
7 3 **2 9 5** 7 4 **1** 3 6 4 **9** 5 4 6 5 2 7 2 4 1 6 7 2 **1** 3

11. (D) Reqd. even digits are printed boldly in the following number series :
7 3 2 9 5 7 4 1 3 **6** 4 9 5 4 **6** 5 2 7 **2** 4 1 6 7 2 1 3

12. (A) Reqd. odd digits are printed boldly in the following series :
7 3 2 9 5 7 4 1 3 6 4 9 5 4 6 **5** 2 7 2 4 **1** 6 **7** 2 1 3

13. (C) Reqd. 4's are printed boldly in the series :
3 **4 9 5** 4 2 6 3 8 4 5 3 2 4 3 6 **5 4** 8 3 5 4 3 9 2 3 7 4 3

14. (D) Reqd. groups are printed boldly in the series :
3 4 3 2 4 2 3 5 1 7 2 5 9 6 4 3 5 8 2 1 4 6 5 6 7 4

15. (A) Reqd. 1's are printed boldly in the series :
4 3 5 **1** 6 3 1 2 7 **1** 4 9 3 1 7 8 9 3 1 5 4 1 3 2 5 **1**

16. (C) Reqd. groups are printed boldly in the following series :
4 5 9 6 9 4 5 7 4 9 5 6 7 4 **9 5 4** 3 5 9 4 4 9 5 5 4 9

17. (B) Reqd. digits are printed boldly in the following series :
4 6 3 6 4 9 5 7 5 6 4 6 8 **2 4** 7 5 **6 7 6 9** 5 3 2

18. (D) Reqd. groups are printed boldly in the following series :
M **L W S** A L S W N B Q W S L W P L S N O L W T R W S L

19. (A) Reqd. N is not there in the series.

20. (C) Reqd. H's are printed boldly in the following series :
P H C R Q P **H** E T P H L H C P E H P S R Q E H P H C P H

21. (B) Reqd. R's are printed boldly in the series :
L R M Q **R** H P **R** H J R T V R I U **R** H W **R** H X **R** H

22. (D) Reqd. K's are printed boldly in the series :
R K L P U K L G T K P K L T V K P R S Q K B E R K P T K
There is no such K.

23. (D) Reqd. X's are printed boldly in the series :
P E X R T N E X L R E N X U P E X T A X F E X L N E X
There is no such X.

6 Time Test and Calendar

Time Test

(i) Under this test the value of time or digit is found from the statement of two people.

The common value in the two statements is taken as correct.

Example—Dhananjay remembers that his younger sister Puja's birthday falls after 15th August and before 18th August, while his mother remember's that Puja's birthday falls after 16th August and before 19th August. If the statements of both are correct, then what is correct date of birthday of Puja ?

(A) 17 (B) 18

(C) 16 (D) Data inadequate

(E) None of these

Answer with Explanation (A)

According to Dhananjay Puja's birthday

= August (16 and 17)

But according to his mother, Puja's birthday

= August (17 and 18)

But 17th Aug. is common to both.

Hence, Puja's birthday is 17th August.

(ii) Under this head, questions based on time are asked. The following shortest formula is used for this.

Time of information given

$$= \left[\begin{matrix}\text{Next} \\ \text{departure}\end{matrix} \begin{matrix}\text{Interval between two} \\ -\text{departures consecutive} \\ +\text{previous departure}\end{matrix}\right]$$

Example—The station master said to Nilima, "A train for Ujjain leaves after every 2·30 hours. A train had already left 55 minutes ago. The next train will leave at 5·30." At what time this information was given to Nilima by the station master?

(A) 3·45 (B) 2·15

(C) 3·55 (D) None of these

Answer with Explanation (C)

Time of information given

$= (5{\cdot}30 - 2{\cdot}30) + 0{\cdot}55$

$= 3{\cdot}55$

(iii) To find the relation between day, date and year with the help of odd days.

Some Important Points

1. In an ordinary year there are 365 days.
2. In a leap year there are 366 days.
3. A year divisible by 4 is a leap year.
4. In case of century, a leap year is that which is divisible by 400. For example 1900 is not divisible by 400. Hence it is not a leap year.

Example 1. Is 1996 a leap year ?

Answer—Yes it is a leap year because 1996 is divisible by 4.

Example 2. Are the years 800 and 900 leap years ?

Answer—Since, 800 is divisible by 400, hence it is a leap year but 900 is not divisible by 400 so it is not a leap year.

Odd days—The number of days which are more than the complete number of weeks, are called **odd days**.

In order to find the number of odd days in a certain period, the total number of days of that period is divided by 7 and thus the remainder so obtained is the number of odd days.

Note : Odd days cannot be more than 6.

1. Number of odd days in an ordinary year

$$= 1; \frac{365}{7} = 52 + (1)$$

2. A leap year contains 2 odd days;

$$\frac{366}{7} = 52 + (2)$$

3. 100 years contain 5 odd days; 24 leap years + 76 ordinary year

$\Rightarrow 24 \times 2 + 76 \times 1$

$\Rightarrow 48 + 76$

$\Rightarrow 124$

$\Rightarrow \frac{124}{7} = 17 + (5)$

4. 200 years contain 3 odd days; 2 × No. of odd days in 100 years

$\Rightarrow 2 \times 5$

$\Rightarrow \frac{10}{7} = 1 + (3)$

5. 300 years contain 1 odd day; 3 × No. of odd days in 100 years

$\Rightarrow 3 \times 5$

$\Rightarrow \frac{15}{7} = 2 + (1)$

6. 400 years contain no odd day; 4 × No. of odd days in 100 years + 1

$\Rightarrow 4 \times 5 + 1$

$\Rightarrow \frac{4 \times 5 + 1}{7} = 3 + (0)$

7. Number of odd days in 31 days = 3
8. Number of odd days in 30 days = 2
9. Number of odd days in 29 days = 1
10. Number of odd days in 28 days = 0

Circular Chart of days by odd days

Note : 1. The day of the week on 1st Jan. 1 A.D. is Monday.

2. No. of odd days of the given years are counted from 1st Jan. 1 A. D.

Example 1. What day of the week was on 1st Jan. 1997 ?

(A) Wednesday (B) Friday

(C) Saturday (D) Thursday

Answer with Explanation (A)

From 1st Jan. 1 A.D. to 1st Jan. 1997

= 1996 complete years

No. of odd days of 1600 years = 0

No. of odd days of 300 years = 1

No. of odd days of 96 years = 96 + 24

$= 120 \rightarrow \frac{120}{7}$

$= 17 + (1)$

Thus, from 1st Jan. 1 A. D. to 31st Dec. 1996, total number of odd days = 2

∴ From 1st Jan. 1 A. D. to 1st Jan. 1997, total number of odd days

= 2 + 1 = 3

But for 3 odd days, the circular chart shows Wednesday.

Hence, on 1st Jan. 1997, it was Wednesday.

Example 2. If Saturday falls on 4th Jan. 1997, what day of the week will fall on 4 Jan. 1998 ?

(A) Monday (B) Friday

(C) Wednesday (D) Sunday

Answer with Explanation (D)

Total number of days from 4th Jan. 1997 to 4th Jan. 1998 = 365

∴ No. of odd days $= \frac{365}{7} = 52 + (1)$

Since, it was Saturday on 4th Jan. 1997, hence, 1 day after it will be Sunday on 4th Jan. 1998.

EXERCISE

1. In U. P. on 17th Oct. 1996 the president rule was declared. Find the day of week on that date.

(A) Tuesday (B) Friday

(C) Wednesday (D) None of these

2. Late President Neelam Sanjeev Reddy died on 1st June, 1996. Tell the day of week on that date.

(A) Sunday (B) Saturday

(C) Thursday (D) None of these

3. If day before yesterday it was Monday, what day will fall on day after tomorrow ?

(A) Saturday (B) Friday

(C) Sunday (D) Thursday

4. Which of the following years is not a leap year ?

(A) 1600 (B) 1000

(C) 800 (D) 1200

5. Ram is 42 weeks older to me while Anup is 15 weeks older to him. If Anup was born on Saturday, on which day was I born ?
   (A) Friday (B) Wednesday
   (C) Sunday (D) Saturday

6. Khusboo was born on Saturday 22nd March 1982. On what day of the week was she 14 years 7 months and 8 days of age ?
   (A) Sunday (B) Tuesday
   (C) Wednesday (D) Monday

7. Ajay was born on 10th Oct. 1970, while Naresh was born 35 days before Ajay. If the Republic day of that year fell on Tuesday, on which day Naresh was born ?
   (A) Monday (B) Tuesday
   (C) Wednesday (D) Sunday

8. If on 10th day after 15th of the month be Thursday, what day of the week would have been on 1st of the same month ?
   (A) Saturday (B) Tuesday
   (C) Monday (D) Sunday

9. If on 14th day after 5th March be Wednesday, what day of the week will fall on 10th Dec. of the same year ?
   (A) Friday (B) Wednesday
   (C) Thursday (D) Tuesday

10. If three days before 10th January be Sunday, what day of the week will fall on 5th Dec. of the last year ?
    (A) Friday (B) Monday
    (C) Wednesday (D) Tuesday

11. Priya was born on 5th Sept. 1992 and Ankita was born 10 days before her. If Independence Day of that year fall on Thursday, which day was Ankita's birthday ?
    (A) Sunday (B) Monday
    (C) Tuesday (D) Friday

12. A tired worker slept at 6-45 p. m. If he rose at 12 noon, for how many hours did he sleep ?
    (A) 5 hours 15 min. (B) 17 hours 15 min.
    (C) 12 hours (D) 6 hours 45 min.

13. Brijesh remembers that his brother Rakesh was born after 10th Oct. but before 15th October, while his mother remembers that Rakesh was born after 14th October and before 20th .October. On which date of October Rakesh was born ?
    (A) 14th (B) 15th
    (C) 13th (D) Data inadequate

14. Rajan remembers that Roshan was born after 15th March and before 20th March. But his father remembers that Roshan was born after 18th March and before 24th March. What is the date of birth of Roshan ?
    (A) 18th March (B) 19th March
    (C) 20th March (D) None of these

15. Pallavi remembers that her sister Suchitra was born after 20th August and before 26th August. But her elder sister remembers that Suchitra was born after 23rd August and before 29th August. What is the date of birth of Suchitra ?
    (A) 25th August
    (B) 24th August
    (C) 24th or 25th August
    (D) 24th or 26th August

16. If 3rd of the month falls on Wednesday then what day will be on 27th of that month ?
    (A) Saturday (B) Sunday
    (C) Friday (D) None of these

17. What is the date of birth of Archana's mother ? To answer the question, which of the information given in the statements (I) and (II) is / are sufficient ?
    (I) Archana's father remembers that his wife's date of birth is after 24th July and before 27th July.
    (II) But Archana's brother remembers that his mother's date of birth is after 25th July and before 28th July.
    (A) Only I
    (B) Only II
    (C) I and II together are not sufficient
    (D) I and II together

18. There are 30 days in a month and 1st day of this month is Monday. If each second Monday and each Sunday is a holiday, then how many working days are there in the month ?
    (A) 23 (B) 22
    (C) 24 (D) 21

19. If 28 Feb. of an ordinary year falls on Wednesday, then what day of week will fall on 28th March ?
(A) Tuesday (B) Wednesday
(C) Thursday (D) None of these

20. If 27th Feb. of a year falls on Saturday, then which one of the following will fall on 27th March ?
(A) Saturday (B) Sunday
(C) Friday (D) None of these

21. Sunanda remembers that she saw her mother on Tuesday after 26th of a month. If 4th of that month fell on Friday, then on what day of the week did she meet ?
(A) 27th (B) 28th
(C) 29th (D) None of these

22. Outside of an interview campus a gatekeeper told the boy that the interview begins after each $5\frac{1}{2}$ hours. Interview had been over just 45 minutes ago. According to the schedule time next interview would begin at 12·00. At what time this information was given to the boy ?
(A) 8·15 (B) 8·45
(C) 7·15 (D) None of these

23. A man says, "If my age of 3 years ago is multiplied by 5 and the result so obtained is subtracted from the age of 3 year hence multiplied by 5, the result will give my present age." What is the present age of the man ?
(A) 30 years (B) 40 years
(C) 50 years (D) 60 years

24. At present Shyama's age is half the age of her father. 20 years ago her age was one fourth of the age of her father. What will be the age of Shyama after 10 years ?
(A) 30 years (B) 40 years
(C) 50 years (D) 60 years

25. Which of the following cannot be the last day of a century year ?
(A) Friday, Sunday
(B) Friday, Monday
(C) Tuesday, Thursday & Saturday
(D) Wednesday, Thursday

26. Which of the following cannot be the first day of a century year ?
(A) Friday, Wednesday
(B) Saturday, Friday
(C) Tuesday, Sunday
(D) Thursday and Monday

27. If there is Monday on 24th Jan. 1994, then what day will be on 24th Jan. 1995 ?
(A) Tuesday (B) Sunday
(C) Wednesday (D) Saturday

28. If Sunday falls on 1st Jan. 1995, what day of the week will fall on 1st Jan. 1996 ?
(A) Monday (B) Tuesday
(C) Saturday (D) Friday

29. If Wednesday falls on 10th Jan. 1996, what day of the week will fall on 10th Jan. 1997 ?
(A) Saturday (B) Tuesday
(C) Friday (D) Sunday

30. If Thursday falls on 10th Dec. 1981, what day of the week will fall on 10th Dec. 1991 ?
(A) Monday (B) Saturday
(C) Friday (D) Tuesday

31. If Thursday falls on 20th Sept. 1984, what day will be on 20th Sept. 1992 ?
(A) Monday (B) Tuesday
(C) Sunday (D) Friday

32. If Tuesday falls on 12th July 1988, what day will be on 12th July 1995 ?
(A) Monday (B) Wednesday
(C) Thursday (D) Sunday

33. If Wednesday falls on 25th May 1977, what day will be on 25th May 1996 ?
(A) Sunday (B) Saturday
(C) Friday (D) Monday

34. In ordinary years in which of the months the 1st days are not same ?
(A) Feb. and Nov. (B) March and Sept.
(C) Jan. and Oct. (D) April and July

35. Hemant took the calendar of the year 1990 and with its help he came to know about the days of the year. Can he use the same calendar for any other year ? If so then for which year ?
(A) 2005 (B) 2008
(C) 2001 (D) 1999

36. I bought the January issue of 'Pratiyogita Darpan' in 1986, which contained the calendar of that year. Tell the other year for which this calendar can be used.
(A) 1997 (B) 2001
(C) 1995 (D) 2003

37. Prabhash from the same calendar came to know about the days of the years 1975, 1986 and 1997. But for the year he was to use the same calendar next time, he died on 1st Jan. of that year. In which year did he die ?
(A) 2009 (B) 2013
(C) 2003 (D) 2007

38. When the sister of Ranjana was born, her mother's age was 25 years. Her father is 3 years older than her mother. If the present age of Ranjana is 35 years and her sister is 8 years younger to her, what is the present age of Ranjana's father ?
(A) 55 years (B) 49 years
(C) 71 years (D) 65 years

39. A college starts from 10 a. m. and continues till 1-30 p.m. In this duration there are five periods. If 5 minutes are provided before each period to leave the room and enter the other, then what is the duration of each period ?
(A) 40 min. (B) 38 min.
(C) 42 min. (D) 41 min.

40. A man is waiting for a bus of Route number 1, 2 and 3. The bus of route number 1 passes after each 5 minutes, bus of route number 2 after each 15 minutes and number 3 after each 45 minutes. But as he reaches the bus stop, a bus had just left. For atleast how long he has to wait for the bus ?
(A) 3 min (B) 7 min
(C) 5 min (D) 9 min

Answers with Explanation

1. (D) 17 Oct. 1996 = 1995 years + 9 months + 17 days

No. of odd days in 1600 years = 0
No. of odd days in 300 years = 1
No. of odd days in 95 years = 6
∴ Total no. of odd days upto 31st Dec. 1995 = 7

In 95 years, there are 23 leap years
∴ No. of odd days in 95 years
$= \frac{95 + 23}{7}$
$= \frac{118}{7}$
= 16 times + (6) remainder
= 6

Now, No. of odd days from 1st Jan. to 17th Oct.
= 3 + 1 + 3 + 2 + 3 + 2 + 3 + 3 + 2 + 3
= 25
∴ Total no. of odd days = 7 + 25
= 32 → 4 + (4)

And according to the circular chart 4 odd days represent Thursday.
∴ On 17th Oct. 1996 it was Thursday.

2. (A) 1st June 1996
= 1995 years + 5 months + 1 day
No. of odd day in 1995
= 7 (as in Q. 1)
No. of odd days from 1 Jan. to 1st June
= 3 + 1 + 3 + 2 + 3 + 1 = 13
∴ Total no. of odd days
= 7 + 13 = 20
$\Rightarrow \frac{20}{7} \rightarrow 2 + (6)$

According to the circular chart 6 odd days represent Saturday. Hence, on 1st June 1996, it was Saturday.

3. (B) Day before yesterday → Monday
∴ Yesterday → Tuesday
and Today → Wednesday
∴ Tomorrow it will be Thursday
and day after tomorrow, it will be Friday.

4. (B) 1000 year is not a leap year because it not divisible by 400.

5. (D) Difference between my and Anup's age
= 42 + 15
= 57 weeks
= 57 × 7 days
∴ No. of odd days $= \frac{57 \times 7}{5}$
= 57 + (0)

Since, odd day is 0, hence I was born on Saturday.

6. (A) 14 years 7 months 8 days
= 11 ordinary years + 3 leap years + 7 months + 8 days
= $11 \times 365 + 3 \times 366 + 30 + 31 + 30 + 31 + 31 + 30 + 31 + 8$
= 5335
$\therefore$ No. of odd days = $\frac{5335}{7} = 762 + (1)$
$\therefore$ Her birthday will fall 1 day after Saturday *i.e.* on Sunday.

7. (D) Birthday of Naresh
= 10th Oct. 1970 – 35 days
= 5th Sept. 1970
No. of total days from 26th Jan. 1970 to 5th Sept. 1970
= $5 + 28 + 31 + 30 + 31 + 30 + 31 + 31 + 5$
= 222
$\therefore$ No. of odd days $\rightarrow \frac{222}{7} \rightarrow 31 + (5)$
$\therefore$ 5 days after Tuesday is Sunday.

8. (C) Since, 10th day after 15th will be 25th and on 25th is Thursday then on 18th, 11th and 4th will be Thursday.
Therefore, on 1st it will be Monday.

9. (B) On 14th day after 15th March, will be 19th March and 19th is Wednesday.
Now, number of days from 19th March to 10 Dec.
= $12 + 30 + 31 + 30 + 31 + 31 + 30 + 31 + 30 + 10$
= 266
and $\frac{266}{7} = 38 + (0)$
$\therefore$ No. of odd days from 19th March to 10th Dec. = 0
$\therefore$ On 10th Dec. it will be Wednesday.

10. (D) Since, 3 days before 10th Jan. is 7th Jan. and on 7th Jan., there is Sunday.
No. of total days from 5th Dec. to 7th Jan.
= 26 + 7 = 33
and $\frac{33}{7} = 4 + (5)$
$\therefore$ No. of odd days from 5th Dec. to 7th Jan.
= 5
$\therefore$ 5 days before Sunday there will be Tuesday.

11. (B) 10 days before 5th Sept. 1992 means 26 Aug. 1992
No. of total days from 15th Aug. to 26 Aug.
= 11 days
No. of odd days in 11 days = 4
Since, on 15th Aug. it is Thursday, therefore, after 4 days it will be Monday.

12. (B) Duration of his sleep = (12 – 6·45) + 12
= 5·15 + 12
= 17·15 hours

13. (D) Date of birth of Rakesh according to Brijesh = (11, 12, 13 and 14) October
and date of birth of Rakesh according to his mother = (15, 16, 17, 18 and 19) October.
Since, there is no common date according to both, hence the date of birth of Rakesh cannot be determined.

14. (B) Roshan's date of birth according to Rajan
= (16, 17, 18 and 19) March
and Roshan's date of birth according his father = (19, 20, 21, 22 and 23) March
$\therefore$ Roshan's date of birth is 19th March.

15. (C) Suchitra's birth date according to Pallavi
= (21, 22, 23, 24 and 25) August
and Suchitra's birth date according to her elder sister = (24, 25, 26, 27 and 28) August
$\therefore$ Suchitra's birth date
= (24 or 25) August

16. (A) Since, 3rd day of the month falls on Wednesday, therefore, 10th, 17th and 24th day of the month would fall on Wednesday. Hence, 27th day of the month would fall on Saturday.

17. (D) Archana's mother's date of birth according to the father of Archana
= (25 and 26) July
and Archana's mother's date of birth according to the brother of Archana
= (26 and 27) July
$\because$ 26 is common to both
Hence, Archana's mother's date of birth is 26th July.
Therefore to know the date of birth of Archana's mother, the information of both statements (I) and (II) is necessary.

18. (C) If 1st day is Monday, then on 8th, 15th, 22nd and 29th day will also be Monday

∴ Second Monday will fall on 15th and 22nd day.

Since, Sunday is on 7th, 14th, 21st and 28th

∴ Total number of holidays = 4 + 2 = 6

Hence, number of working days = 30 – 6

= 24

19. (B) No. of days from 28th Feb. to 28th March of an ordinary year = 28

∴ No. of odd days = 0

∴ On 28th March it will be Wednesday.

20. (D) Since, here it is not clear that the year is leap year or an ordinary year. Hence, exact day of 27th March cannot be determined.

21. (C) Since, 4th day of the month falls Friday then on 11th, 18th and 25th of the month will also fall on Friday.

Hence, 29th of the month will fall on Tuesday.

22. (D) Time of information given

= [Next departure – Interval between two departures + Previous departure]

$= 12 - 5\frac{1}{2} + 0{\cdot}45$

= 6·95

23. (A) Let my present age be x years

$\therefore \quad 5(x+3) - 5(x-3) = x$

$\therefore \quad x = 30$ years

24. (B) Let the present age of Shyama be x years

∴ Present age of her father = $2x$ years

$\therefore \quad x - 20 = \frac{1}{4}(2x - 20)$

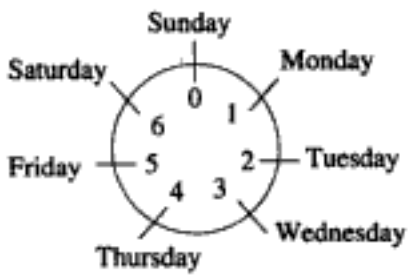
$\Rightarrow \quad x = 30$

∴ Shyama's age after 10 years

= 30 + 10

= 40 years

25. (C) Last day of each century year will only be days of odd days and odd days according to the circular chart are as given below :



Odd days in first century = 5

∴ Last day of first century is Friday

Odd days in second century = 3

∴ Last day of second century Wednesday

Odd days of third century = 1

∴ Last day of third century is Monday

Odd days of Fourth century = 0

∴ Last day of fourth century is Sunday

The same order is repeated later on.

Thus, Tuesday, Thursday and Saturday can not be the last days of any century.

26. (A) First day of the century is calculated from the last of the century.

∴ First day of the 1st century is Monday (known)

∵ Last day of 1st century is Friday

∴ 1st day of 2nd century is Saturday

Similarly 1st days of 3rd and 4th centuries are Thursday and Tuesday.

The same order is repeated later on.

Thus Sunday, Wednesday and Friday cannot be the first days of any century.

27. (A) No. of days from 24 Jan. 1994 to 24 Jan. 1995 = 365 $= \frac{365}{7} = 52 + 1$

∴ No. of odd days = 1

As there was Monday on 24 Jan. 1994, hence there will be Tuesday on 24 Jan. 1995.

28. (A) No. of days from 1st Jan. 1995 to 1st Jan. 1996 = 365

$\frac{365}{7} = 52 + \textcircled{1}$

∴ No. of odd days in this duration = 1

Since, there was Sunday on 1st Jan. 1995, so it will be Monday on 1st Jan. 1966.

29. (C) No. of days from 10th Jan. 1996 to 10th Jan. 1997 = 366

∴ No. of odd days 10th Jan. 1996 to 10th Jan. 1997 = 2

So there will be Friday on 10th Jan. 1997.

30. (D) No. of days from 10th Dec. 1981 to 10th Dec. 1992 = 10 years

= 2 leap years + 8 ordinary years

∴ No. of odd days during this period
$= 4 + 8 = 12$

$\Rightarrow \quad \frac{12}{7} \rightarrow 1 + (5)$

As it was Thursday on 10th Dec. 1981, hence 10th Dec. 1992 it will be Tuesday.

31. (C) From 20th September 1984 to 20th Sept. 1992, duration = 8 years
= 2 leap years + 6 ordinary years

∴ No. of odd days from 20th Sept. to 20th Sept. 1992 $= 2 \times 2 + 6 \times 1$
$= 10$

$\Rightarrow \quad \frac{10}{7} = 1 + (3)$

∴ No. of odd days = 3

∴ On Sept. 20th 1992 there will be Sunday.

32. (B) Duration from 12th July 1988 to 12th July 1995 = 7 years
= 1 leap year + 6 ordinary years

∴ No. of odd days in this duration
$= 1 \times 2 + 6 \times 1$
$= 2 + 6 = 8 \rightarrow (1)$

Hence, on 12th July 1995, it will be Wednesday.

33. (B) Duration from 25th May 1977 to 25th May 1996 = 19 years
= 5 leap years + 14 ordinary years

∴ No. of odd day in this duration
$= 5 \times 2 + 14 \times 1$
$= 10 + 14$
$= 24 \rightarrow 3$

Hence, on 12th July, 1995 there will be Saturday.

34. (B) (i) Duration from 1st Feb. to 1st Nov. in an ordinary year = 273 days.

∴ No. of odd days in this duration
$= \frac{273}{7} \rightarrow 0$

Hence, the same day will fall on 1st Feb. and 1st Sept.

(ii) Duration from 1st March to 1st Sept. in an ordinary year = 184 days

∴ No. of odd days in this duration
$= \frac{184}{7} \rightarrow (2)$

Hence, same day will not fall on 1st March and 1st Sept.

35. (C) For an ordinary year first day and last day of the year are same. After 11 years the first day will also be same. Hence, this can be used after 11 years *i.e.*, in 2001. The following chart will also illustrate the idea :

Year	First Day	Last Day
1990	Monday	Monday
1991	Tuesday	Tuesday
1992	Wednesday	Thursday
1993	Friday	Friday
1994	Saturday	Saturday
1995	Sunday	Sunday
1996	Monday	Tuesday
1997	Wednesday	Wednesday
1998	Thursday	Thursday
1999	Friday	Friday
2000	Saturday	Sunday
2001	Monday	Monday

36. (A) 1986 is an ordinary year. Let its first day be fallen on Wednesday

Year	First Day	Last Day
1986	Wednesday	Wednesday
1987	Thursday	Thursday
1988	Friday	Saturday
1989	Sunday	Sunday
1990	Monday	Monday
1991	Tuesday	Tuesday
1992	Wednesday	Thursday
1993	Friday	Friday
1994	Saturday	Saturday
1995	Sunday	Sunday
1996	Monday	Tuesday
1997	Wednesday	Wednesday

Since, first and last day 1986 and 1997 are same. Hence it can also be used on 1997.

37. (C) 1997 is an ordinary year. Let its first day be fallen on Monday

Year	First Day	Last Day
1997	Monday	Monday
1998	Tuesday	Tuesday
1999	Wednesday	Wednesday
2000	Thursday	Friday
2001	Saturday	Saturday
2002	Sunday	Sunday
2003	Monday	Monday

Since, first and last days of 1999 and 2003 are same. Hence, it can also be used in 2003.

38. (A) Present age of Ranjana = 35 years
$\therefore$ Present age of her sister = 35 – 8
= 27 years
and present age of her mother = 27 + 25
= 52 years
$\therefore$ Present age of her father = 52 + 3
= 55 years

39. (B) Duration of college time
= 1·30 p.m. – 10·00 a.m.
= 13·30 – 10·00
= 3·30 hours
= 210 minutes
$\because$ Time left = $5 \times 4 = 20$ minutes
$\therefore$ Time of all 5 periods
= 210 – 20 = 190 minutes
$\therefore$ Duration of 1 period
$= \frac{190}{5} = 38$ minutes

40. (C) Minimum time among all three buses is 5 minutes. Hence, he has to wait atleast for 5 minutes.

7 Number Related Test

In this type of test such questions are asked in which the knowledge of numbers and arithmetic is required.

Example 1. If all the numbers from 1 to 73, which are divisible by 7 are arranged in descending order, then which numbers will be at 8th and 5th place?

(A) 21, 42 (B) 28, 42
(C) 21, 56 (D) 14, 49

Answer with Explanation (A)

On writing the numbers which are divisible by 7 from 1 to 73 in descending order we get

70, 63, 56, 49, 42, 35, 28, 21, 14, 7

Now in this group, the number at 8th place is **21** and at 5th place is **42**.

EXERCISE

1. If all the prime numbers from 1 to 49 are removed, then how many numbers will remain?
   (A) 33 (B) 34
   (C) 32 (D) 36
2. If all the odd numbers from 3 to 36 are removed, then how many numbers will remain?
   (A) 16 (B) 20
   (C) 15 (D) 17
3. If all the squared numbers, and those numbers, the sum of whose digits is 9 from 4 to 65 are removed, then how many numbers will remain ?
   (A) 49 (B) 55
   (C) 51 (D) 45
4. If all the numbers from 7 to 59, which are divisible by 3 are arranged in descending order then which number will be at 10th place from the bottom ?
   (A) 36 (B) 39
   (C) 30 (D) 27
5. Among all the numbers from 3 to 87, which are divisible by 4 and also whose sum of digits is 9, which will have the least digit ?
   (A) 7 (B) 3
   (C) 2 (D) 6
6. If from 8 to 80 all the squared numbers and those numbers the sum of whose digits is 9 are arranged in descending order, then which number will be at 12th place ?
   (A) 36 (B) 49
   (C) 45 (D) 30
7. From 6 to 39, how many numbers are such which are divisible by 3 or 5 ?
   (A) 17 (B) 10
   (C) 12 (D) 15
8. From 9 to 79, how many numbers are such which are divisible by 4 as well as by 6 ?
   (A) 5 (B) 6
   (C) 7 (D) 4
9. What will be the middle, digit of that number which will be exactly in the middle when the following numbers are arranged in descending order ?
   465, 352, 698, 245, 875, 529, 812
   (A) 4 (B) 7
   (C) 5 (D) 2
10. If the following numbers are arranged in descending order, what will be the middle digit of the number which will be exactly in the middle ?
    729, 215, 575, 882, 661, 796, 631
    (A) 6 (B) 2
    (C) 1 (D) 8
11. If the digits of the following numbers are reversed and then the numbers are arranged in descending order, then what will be the middle digit of the middle term ?
    329, 215, 175, 295, 539, 486, 765
    (A) 1 (B) 9
    (C) 7 (D) 6

12. If the following numbers are written in ascending order then what will be the middle digit of the middle term ?

745, 657, 825, 475, 692, 612, 735

(A) 2 (B) 9
(C) 4 (D) 7

13. If the following numbers are written in ascending order then what will be the middle digit of the middle term ?

815, 686, 795, 835, 765, 822, 719

(A) 8 (B) 1
(C) 3 (D) 9

14. If the digits of the following numbers are reversed and then the numbers are arranged in ascending order then what will be the middle digit of the middle term ?

375, 682, 315, 792, 865, 129, 875

(A) 3 (B) 6
(C) 7 (D) 8

15. If the numbers from 1 to 24, which are divisible by 2 are arranged in descending order, then which number will be at 8th place from the bottom ?

(A) 10 (B) 12
(C) 16 (D) 18

16. If the numbers which are divisible by 3 from 1 to 61 are arranged in descending order, then which numbers will be at 5th place and at 15th place from above ?

(A) 45, 18 (B) 48, 18
(C) 48, 21 (D) 45, 15

17. How many numbers there from 6 to 90, which are divisible by 5 and either unit digit or tenth digit or both include 5 ?

(A) 7 (B) 8
(C) 10 (D) 9

18. There are 23 steps to reach a temple. On descending from the temple Ram takes two steps in the same time. Shyam ascends one step. If they start to work simultaneously, at which step will they meet each other?

(A) 8th (B) 9th
(C) 10th (D) 11th

19. There are 35 steps to reach a temple. On descending from the temple Soni takes two steps in the same time Gunjan ascends four steps. If they start to work simultaneously, at which step will they meet each other ?

(A) 18th (B) 10th
(C) 24th (D) 17th

20. How many numbers are there from 4 to 53 which are either divisible by 3 or of which any digit contains zero ?

(A) 20 (B) 15
(C) 16 (D) 19

21. If all the numbers which are divisible by 3 and 6 from 5 to 75 are arranged in ascending order, then which number will be at 7th place from the bottom ?

(A) 42 (B) 36
(C) 30 (D) 24

22. A boy said that the number of his sisters is 3 times the number of his brothers. His one sister said that the numbers of her brothers and sisters are equal. How many brothers and sisters are they ?

(A) 2 brothers and 2 sisters
(B) 2 brothers and 4 sisters
(C) 2 brothers and 3 sisters
(D) 2 brothers and 3 sisters

23. A man invited some boys and girls on the birth day of his son. The number of girls was more than that of boys by 5. He gave Rs. 15 to each boy and Rs. 30 to each girl. If total amount distributed by him is Rs. 465, what is the total number of boys and girls ?

(A) 16 (B) 19
(C) 15 (D) 18

24. Three fathers and three sons went to a hotel to have food. All of them had their meal and paid Rs. 60. Find the average amount of food of each ?

(A) Rs. 15 (B) Rs. 20
(C) Rs. 30 (D) Rs. 24

25. There are some cows, bulls and 30 she-goats in a group. One caretaker looks after 6 animals. The number of bulls is three times the number of cows. If the number of heads is less than the number of feet by 133 (including the caretakers), how many caretakers are there?

(A) 9 (B) 10
(C) 5 (D) 7

Answers with Explanation

1. (B) Prime numbers from 1 to 49 are : 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43 and 47.
   ∴ Total number of these prime number = 15
   ∴ Remaining number = 49 – 15 = 34
2. (D) Odd numbers from 3 to 36 are : 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33 and 35
   ∴ Total number of these odd numbers = 17
   and total number of numbers from 3 to 36 = (36 – 3) + 1 = 34
   ∴ Remaining number = 34 – 17 = 17
3. (C) Total of the numbers from 4 to 65 = (65 – 4) + 1 = 62
   Numbers which are removed are 9, 16, 18, 25, 27, 36, 45, 49, 54, 63 and 64
   Total of these numbers = 11
   ∴ Remaining number = 62 – 11 = 51
4. (A) On arranging numbers from 7 to 59, which are divisible by 3, in descending order, we get 57, 54, 51, 48, 45, 42, 39, 36, 33, 30, 27, 24, 21, 18, 15, 12, and 9.
   ∴ 36 is the number which will be at 10th place from the bottom.
5. (C) Required numbers are 36 and 72
   The least digit in these numbers is 2.
6. (A) On arranging the required numbers in descending order we get
   80, 75, 70, 65, 64, 60, 55, 50, 49, 45, 40, 36, 35, 30, 25, 20, 16, 15, 10 and 9
   ∴ 36 is the number which will be at 12th place.
7. (D) The numbers which are divisible by 3 or 5 from 6 to 39, in descending order are : 6, 9, 10, 12, 15, 18, 20, 21, 24, 25, 27, 30, 33, 35, and 36.
   ∴ Total number of these numbers = 15
8. (B) The numbers which are divisible by 4 and 6 from 9 to 79 are :
   12, 24, 36, 48, 60, and 72
   ∴ Total number of these numbers = 6
9. (D) On arranging the given numbers in descending order, we get :
   875, 812, 698, 529, 465, 352, 245
   ∴ The middle term is 529 whose middle digit is 2.
10. (A) On arranging the given numbers in descending order, we get :
    882, 796, 729, 661, 631, 575, 215
    ∴ The middle term is 661, whose middle digit is 6.
11. (B) On reversing the digits of the given numbers we get :
    923, 512, 571, 592, 935, 684, and 567
    After arranging the above numbers in descending order, we get :
    935, 923, 684, 592, 571, 567 and 512
    The middle term is 592 whose middle digit is 9.
12. (B) On arranging the given numbers in ascending order, we get :
    475, 612, 657, 692, 735, 745 and 825
    The middle term is 692 whose middle digit is 9.
13. (D) On arranging the given numbers in ascending order, we get :
    686, 719, 765, 795, 815, 822, 835
    The middle term is 795 whose middle digit is 9.
14. (B) On reversing the digits of the given numbers, we get
    573, 286, 513, 297, 568, 921, 578
    After arranging the above numbers in ascending order, we get
    286, 297, 513, 568, 573, 578, 921
    The middle term is 568 whose middle digit is 6.
15. (C) On arranging the numbers from 1 to 24, which are divisible 2 in descending order, we get :

24, 22, 20, 18, 16, 14, 12, 10, 8, 6, 4, 2

In the above series, the numbers at 5th place from above and at 8th place from bottom is 16.

16. (B) The numbers which are divisible by 3 from 1 to 61 in descending order are :

60, 57, 54, 51, 48, 45, 42, 39, 36, 33, 30, 27, 24, 21, 18, 15, 12, 9, 6, 3

In the above series, the numbers at 5th place and at 15th place from above are 48 and 18 respectively.

17. (D) The numbers which are divisible by 5 from 6 to 90 and include 5 at any place are :

15, 25, 35, 45, 50, 55, 65, 75 and 85.

$\therefore$ Total of these numbers = 9

18. (A) We assume that Ram and Shyam, descends and ascends respectively x times

$\therefore$ Total number of steps

$= [x \times (\text{No. of descending steps}) + x (\text{No. of ascending steps}) - 1]$

$\Rightarrow \quad 23 = [(x \times 2 + x \times 1) - 1]$

$= 3x - 1$

$\Rightarrow \quad x = \frac{23+1}{3} = 8$

$\therefore$ They will meet at 8th step from bottom.

19. (C) We assume that soni and Gunjan descends and ascends respectively x times.

$\therefore$ Total number of stairs

$= [x \times (\text{No. of descending steps}) + x \times (\text{No. of ascending steps}) - 1]$

$\Rightarrow \quad 35 = [x \times 2 + (x \times 4) - 1]$

$= (6x - 1)$

$\Rightarrow \quad x = \frac{35+1}{6} = 6$

$\therefore$ No. of stairs at which they meet from bottom

$= 6 \times 4 = 24$th

20. (A) The numbers which are either divisible by 3 or include any digit zero from 4 to 53 are :

6, 9, 10, 12, 15, 18, 20, 21, 24, 27, 30, 33, 36, 39, 40, 42, 45, 48, 50, and 51.

[redacted] number of these numbers = 20.

[redacted] numbers from 5 to 75, [redacted] and 6 in ascending [redacted]30, 36, 42, 48, 54,

$\therefore$ 36 is the number which is at 7th place from the bottom.

22. (C) Let the number of brothers be x

As the boy himself is saying

$\therefore$ No. of remaining boys $= x - 1$

Then no. of sisters $= 3(n - 1)$

$= 3x - 3$

$\therefore$ No. of other sisters except one who is saying

$= 3x - 3 - 1$

$\therefore \quad x = 3x - 3 - 1$

$\Rightarrow \quad x = 2$

and then No. of sisters $= 3 \times 2 - 3 = 3$

23. (B) Let the No. of boys be x

$\therefore$ No. of girls $= x + 5$

$\therefore \quad x \times 15 + (x + 25)\, 30 = 465$

$\Rightarrow \quad x = 7$

$\therefore$ No. of boys = '7' and girls = 12

24. (A) The persons who went to hotel are

Father $\rightarrow$ Son $\rightarrow$ Son $\rightarrow$ Son

Thus there went only four persons.

$\therefore$ Average expenditure $= \frac{60}{4} =$ Rs. 15.

25. (D) Let the number of cows be x

$\therefore$ No. of bulls $= 3x$

$\therefore$ No. of caretakers $= \frac{x + 3x + 30}{6}$

$= \frac{4x + 30}{6} = \frac{2x + 15}{3}$

$\therefore$ No. of feet $= 4x + 4 \times 3x + 4 \times 30 + 2\frac{(2x + 15)}{3}$

and no. of heads $= x + 3x + 30 + \frac{2x + 15}{3}$

$\therefore \left(4x + 12x + 120 + \frac{4x + 30}{3}\right) - \left(x + 3x + 30 + \frac{2x + 15}{3}\right) = 133$

$\Rightarrow (12x + 36x + 360 + 4x + 30) - (3x + 9x + 90 + 2x + 15) = 399$

$\Rightarrow \quad 38x + 285 = 399$

$38x = 399 - 285 = 114$

$\therefore \quad x = \frac{114}{38} = 3$

$\therefore$ No. of caretakers $= \frac{3 + 3 \times 3 + 30}{6} = 7$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(D) Neither conclusion I nor conclusion II is applicable

3. **Statement** : President Rule was promulgated in the state again after the elections.

Conclusions :I. The leader of the majority party was not available.

II. No single party enjoyed majority clearly.

(A) Only conclusion I is applicable
(B) Only conclusion II is applicable
(C) Both conclusions I and II are applicable
(D) Neither conclusion I nor conclusion II is applicable

4. **Statement** : The new Government was formed after Independence by bifurcating the country. The people hoped that in future there would be the formation of new India, where peace shall supreme, and the country would attain a new glory by marching on the path of development.

Conclusions : I. Our country could not avail stable Governments.

II. There were no good leader in the country.

(A) Only conclusion I is applicable
(B) Only conclusion II is applicable
(C) Both conclusions I and II are applicable
(D) Neither conclusion I nor conclusion II is applicable

5. **Statement** : Ramar Pillai said that herbal petrol is cheaper. All the scientists are amazed by this invention, all Indians are also stunned.

Conclusions : I. Ramar Pillai is an Indian.

II. Ramar Pillai is a scientist.

(A) Only conclusion I is applicable
(B) Only conclusion II is applicable
(C) Both conclusions I and II are applicable
(D) Neither conclusion I nor conclusion II is applicable

6. **Statement** : Smugglers and criminals live in the five star hotels now-a-days. So, attention should be paid to this fact for the excellent progress of country.

Conclusions :I. Only criminals and smugglers live in the five star hotels.

II. People from different walks of life stay in the hotels.

(A) Only conclusion I is applicable
(B) Only conclusion II is applicable
(C) Both conclusions I and II are applicable
(D) Neither conclusion I nor conclusion II is applicable

7. **Statement** : We shall put a new example of progress and glorious tradition by bringing about a change in the education system of the country. It had become important considering the conditions prevailing in different sectors.

Conclusions: I. Education policy is formulated on the basis of the conditions prevailing in different fields.

II. Old education policy was failing in forming a balance between different fields.

(A) Only conclusion I is applicable
(B) Only conclusion II is applicable
(C) Both conclusions I and II are applicable
(D) Neither conclusion I nor conclusion II is applicable

8. **Statement** : X, Y and Z are black. All are politicians.

Conclusions : I. Some are black.

II. All the politicians are black.

(A) Only conclusion I is applicable
(B) Only conclusion II is applicable
(C) Both conclusions I and II are applicable
(D) Neither conclusion I nor conclusion II is applicable

9. **Statement** : Our armed forces do not hesitate even in sacrificing their lives for the safety of the country. Boosting their morals shall be a great example.

Conclusions : I. Armed forces carry out the duty of defending the country excellently.

II. Others too contribute to the safety of the country.

(A) Only conclusion I is applicable


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16 Series Completion Test

Under this head following types of questions are asked—

(1) Number Series

(2) Alphabet Series

(3) Letter Series

1. **Number Series**—In this type a number series is given in which either next term is asked or some wrong term which does not follow the series is to find out.

Under this head following types of series are given—

Arithmetic progression—In this type of series the difference of two consecutive terms is same. Sometimes series are so given that the difference of two terms is same.

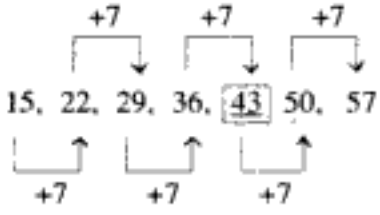
Example 1. In the following series find the number in place of question mark.

15, 22, 29, 36, ?, 50, 57

(A) 43 (B) 42

(C) 40 (D) 44

Answer with Explanation (A) :



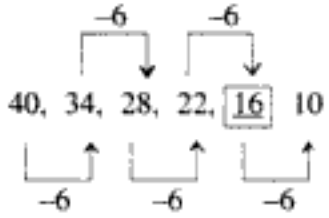
Example 2. In the following series find the number in place of question mark ?

40, 34, 28, 22, ?, 10

(A) 14 (B) 15

(C) 16 (D) 17

Answer with Explanation (C) :



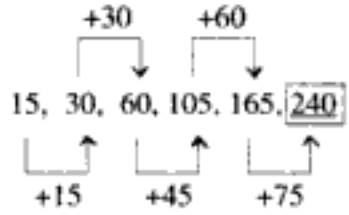
Example 3. In the following series find the term in place of question mark ?

15, 30, 60, 105, 165, ?

(A) 210 (B) 220

(C) 230 (D) 240

Answer with Explanation (D) :



Geometrical Progression—In this type of series the ratio of two consecutive terms is same.

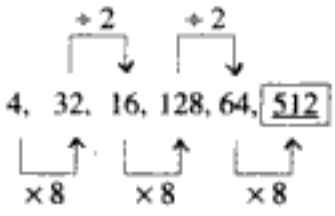
Example 1. In the following series which number will replace the question mark ?

4, 32, 16, 128, 64, ?

(A) 612 (B) 512

(C) 362 (D) 412

Answer with Explanation (B) :



Mixed Series—In this type of series, both types of series A. P. and G. P. are together.

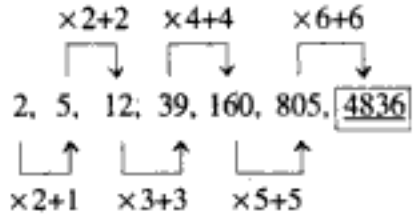
Example 1. In the following series, which number will replace the question mark ?

2, 5, 12, 39, 160, 805, ?

(A) 4936 (B) 4930

(C) 4830 (D) 4836

Answer with Explanation (D) :



Compound Series—In this type of series, it is a mixture of two or more than two series.

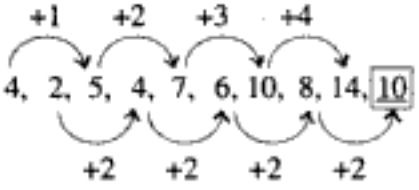
Example : In the following series, which number will replace the question mark ?

4, 2, 5, 4, 7, 6, 10, 8, 14, ?

(A) 10 (B) 12

(C) 18 (D) 19

Answer with Explanation (A) :



Series of Prime Numbers—In this type of series, the difference of two consecutive numbers is a prime number, or each term contains a prime number.

Example : In the following series, which number will replace the question mark ?

23, 29, 31, 37, 41, 43, ?

(A) 45 (B) 53

(C) 47 (D) 49

Answer with Explanation (C) : On looking the series we see that each number of the series is a prime number and each subsequent term is the next prime number. Hence, in place of question mark the next prime number to 43 will come. But the next prime number to 43 is 47. Hence, 47 will replace the question mark.

Series based on squares and cubes—In this type of series the difference between two consecutive numbers will always be in the form of a square or a cube or the terms will be in the form of square or cube.

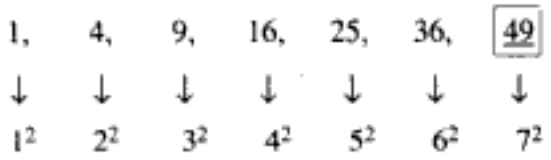
Example 1. Which number will replace the question mark in the following series ?

1, 4, 9, 16, 25, 36, ?

(A) 40 (B) 45

(C) 49 (D) 47

Answer with Explanation (C) :



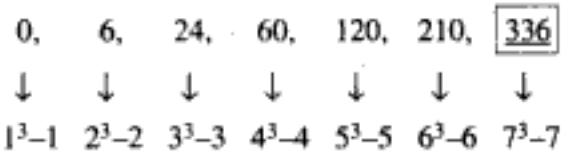
Example 2. In the following series which number will replace the question mark ?

0, 6, 24, 60, 120, 210, ?

(A) 336 (B) 343

(C) 300 (D) 332

Answer with Explanation (A) :



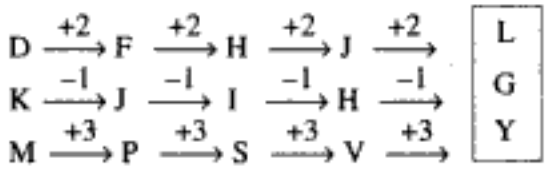
(2) **Alphabet Series**—In this type of test, a letter series or a number-letter series is given. A candidate has to find out the missing series.

Example 1. DKM, FJP, HIS, JHV, ?

(A) HGY (B) IGZ

(C) IGY (D) LGY

Answer with Explanation (D) :



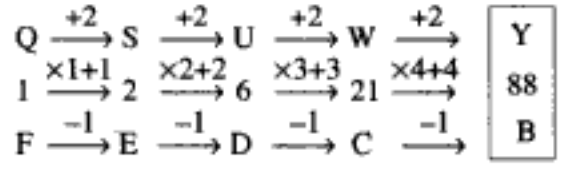
Hence, the correct answer is (D).

Example 2. Q1F, S2E, U6D, W21C, ?

(A) Y66B (B) Y88B

(C) Z88B (D) Y44B

Answer with Explanation (B) :



Hence, the correct answer is (B).

Example 3. AYD, BVF, DRH, ?, KGL.

(A) FMI (B) GMJ

(C) HLK (D) GLJ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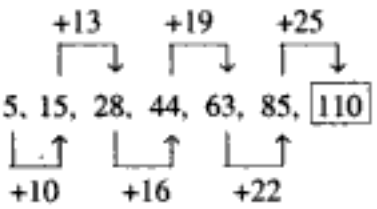
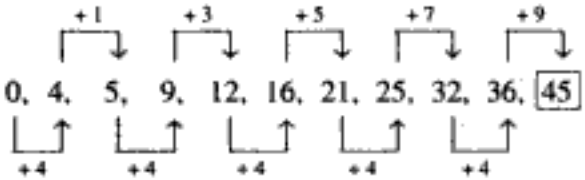
That is the product of the digit of previous number is its next number.

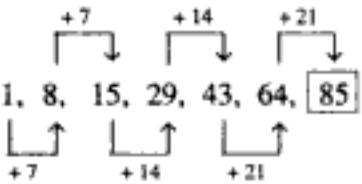
28. (C)



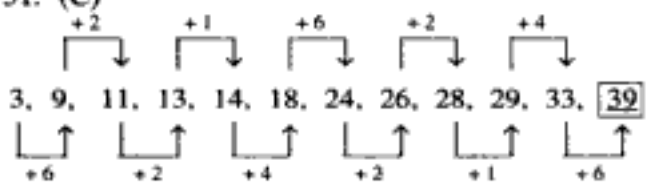
29. (B)



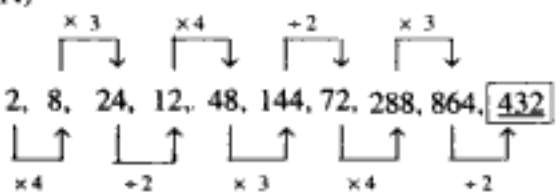
30. (D)



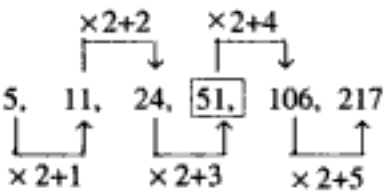
31. (C)



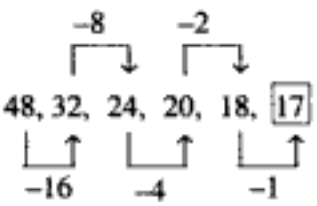
32. (A)



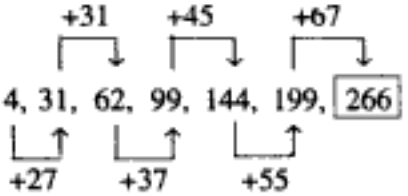
33. (D)



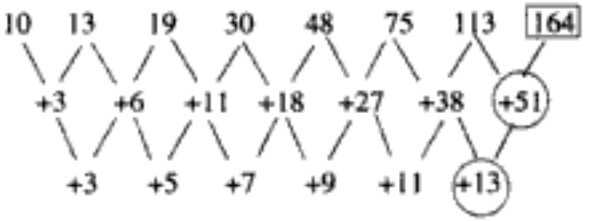
34. (B)



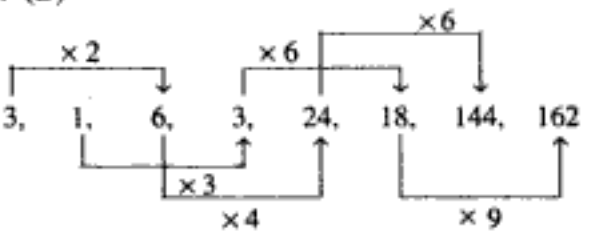
35. (A)



36. (C)



37. (B)

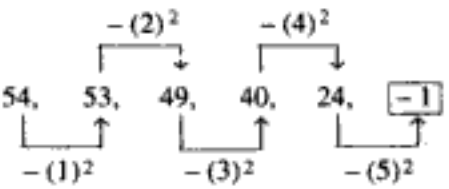


38. (D) 0, 1, 1, 2, 3, 5, 8, 13, 21

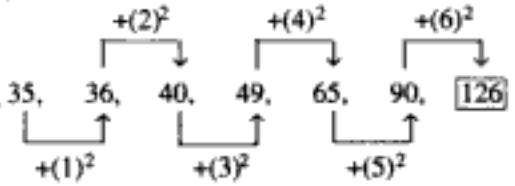
As
$0 + 1 = 1$
$1 + 1 = 2$
$1 + 2 = 3$
$2 + 3 = 5$
$3 + 5 = 8$
$5 + 8 = 13$

Similarly $8 + 13 = 21$

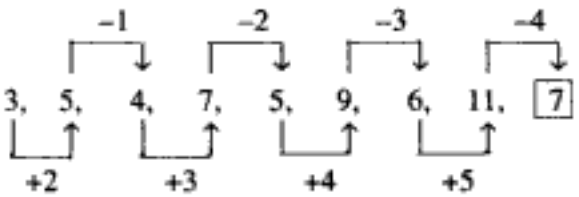
39. (B)



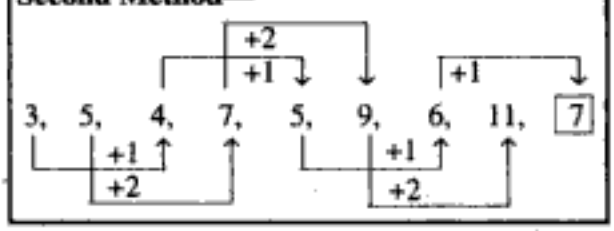
40. (D)



41. (A)



Second Method—



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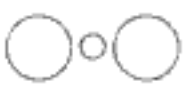
17 Venn Diagram

In this type of test some figures of circles are given and each question some words are given. The candidates have to choose a figure which represents the given words.

Exmaple 1 : If two big circles represent animals living on soil and those living in water and the small circle stands for the animals who live both on soil and in water. Which figure correctly represents the relationship among them ?

(A)  (B) 

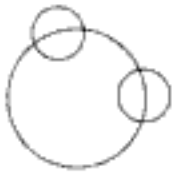
(C)  (D) 

Answer with Explanation (D)

The both big circles should touch externally and the small circle should cover same of the parts of both big circles.

Exercise

Directions—(Q. 1–5) Three elements have been given in each of the questions given below. May be that these elements have some relationship with each other or even no relation at all. Each group of these elements fits in either of the sketches such as (A), (B), (C), (D) and (E). You have to point out the group of elements fitting into each question. The serial letter of that sketch is your answer.

(A)  (B) 

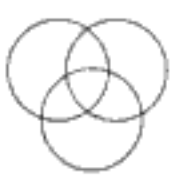
(C)  (D) 

(E) 

1. Shirt, Cloth, Pen
2. Chair, Steel, Furniture.
3. Gold, Metal, Zinc.
4. Goods, Shop, Market.
5. Moon, Sun, Earth.

Directions—(Q. 6–12) In each of the following questions three words are given which are related in some way. This relationship is indicated by one of the four diagrams given below. The diagram showing the relationship among the words in the question is your answer. Mark it on the answer-sheet as instructed.

(A)  (B) 

(C)  (D) 

6. Window, Room, Wall.
7. State, Country, City.
8. Table, Chair, Furniture.
9. Dog, Cat, Mammal.
10. Girl, Athlete, Singer.

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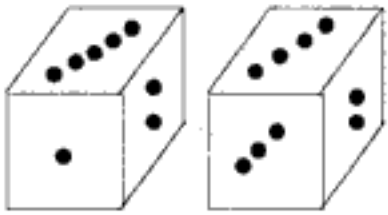
then how many black dots will be on the upper face ?



(A) 5 (B) 2
(C) 4 (D) 1

Directions—(Q. 25 to 28) Different faces of a cube are coloured black, blue, green, red, rosy and orange in the following ways.

1. The face of green colour is opposite to rosy colour.
2. The face of black colour is between green and rosy colours.
3. The face of blue colour is nearest to the orange colour.
4. The face of red colour is nearest to the blue colour.
5. The upper face is of rosy colour.

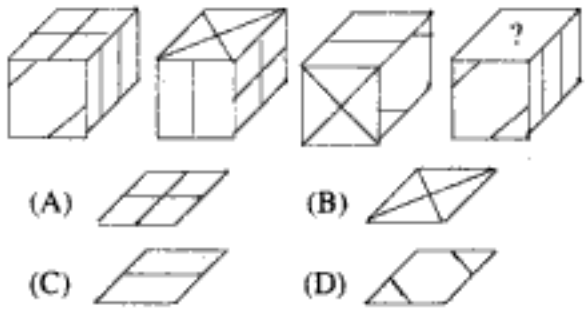
25. Four nearest colours are—
(A) Rosy, red, green and orange
(B) Rosy, red, blue and orange
(C) Rosy, blue, red and green
(D) Rosy, blue, green and orange

26. Which colour is opposite to the face of black colour ?
(A) Orange (B) Green
(C) Blue (D) Red

27. Which colours are nearest to the red colour ?
(A) Rosy, black, blue and orange
(B) Black, blue, green and rosy
(C) Black, green, blue and orange
(D) Rosy, orange, blue and green

28. According to the conditions (1) and (5) which of the following statements is fully correct ?
(A) The bottom face is of red colour
(B) The bottom face is of blue colour
(C) The bottom face is of green colour
(D) Rosy colour is not nearest to the red colour

29. A cubical block with designs in its faces is presented as viewed from different directions. Find the design on the blank space.



Directions—Study the three different positions of a dice given below and answer the questions 30 to 32.

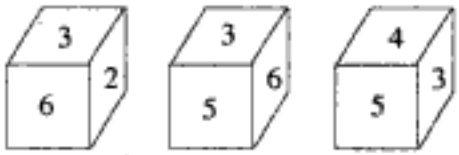


Fig. (1) Fig. (2) Fig. (3)

30. Which number occurs on the face opposite to 2 ?
(A) 1 (B) 4
(C) 5 (D) Can not be determined

31. The number on the bottom face of fig. (1) is—
(A) 1 (B) 4
(C) 5 (D) None of these

32. The number on the face opposite to 6 is—
(A) 1 (B) 5
(C) 4 (D) Can not be determined

Answers with Explanations

1. (C) The adjeccent faces of m are *s*, *r*, *n* and *t*.
∴ Opposite face to $m = p$
Hence, when *p* appears on the top, then *m* will appear on the bottom.

2. (D) According to the rule number (2) common face (4) is same in both positions
∴ Opposite to (2) is (5) and opposite (1) to (6)
∴ Opposite to (3) is (4).

3. According to rule (2), common face (2) is same in both positions
∴ Opposite to (3) is (4) and opposite to (1) to (5)
∴ Opposite to (2) is (6).

4. According to the rule (1) two common faces are (6) and (3)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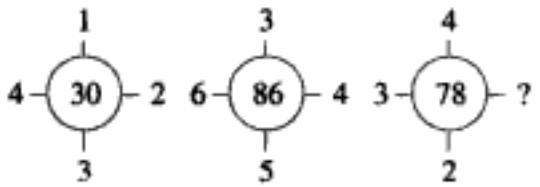
19.

11	3	12
9	9	?
4	2	9
16	10	15

(A) 11 (B) 12
(C) 13 (D) 14

20.



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

21.

?	4	52
45	11	43
67	23	28
25	16	37

(A) 3 (B) 2
(C) 5 (D) 6

22.

9	27	36	12
9	3	5	15
45	?	9	27

(A) 18 (B) 25
(C) 16 (D) 15

23.

5	20	15	200
3	4	5	18
9	6	9	?

(A) 76 (B) 66
(C) 56 (D) 86

24.

0	2	4
2	6	3
3	?	5
35	225	216

(A) 0 (B) 2
(C) 1 (D) 4

25.

8	6	7
3	7	5
14	12	13
9	13	?

(A) 9 (B) 7
(C) 13 (D) 11

26.

4	7	8	?
8	7	2	1
8	1	7	5
4	2	3	7
144	42	100	36

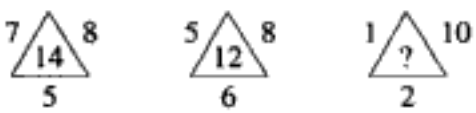
(A) 30 (B) 6
(C) 2 (D) 0

27.

15	33	?
5	7	15
11	27	41

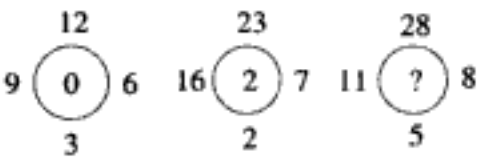
(A) 55 (B) 45
(C) 56 (D) 26

28.



(A) 1 (B) 0
(C) 2 (D) 3

29.



(A) 15 (B) 14
(C) 20 (D) 12

30. 637 (5) 498
123 (?) 912
(A) 4 (B) 6
(C) 5 (D) 7

31.

15	70	45	60
8	95	23	?
19	200	41	90
9	40	20	45

(A) 35 (B) 40
(C) 45 (D) 30

32.

4	8	12	1
5	7	9	11
8	16	24	?

(A) 2 (B) 12
(C) 10 (D) 1

33.

42	22	28	100
36	?	35	49
60	7	55	79
45	29	105	43

(A) 5 (B) 25
(C) 6 (D) 15

34.

4	3	2	8
5	6	9	3
41	45	85	?

(A) 64 (B) 55
(C) 72 (D) 73

Answers with Explanation

1. (B)

$10 \xrightarrow{+2}$	$12 \xrightarrow{+2}$	$14 \xrightarrow{+2}$	16
$12 \xrightarrow{+2}$	$14 \xrightarrow{+2}$	$16 \xrightarrow{+2}$	18
$8 \xrightarrow{+2}$	$10 \xrightarrow{+2}$	$12 \xrightarrow{+2}$	14
$14 \xrightarrow{+2}$	$\boxed{16} \xrightarrow{+2}$	$18 \xrightarrow{+2}$	20
$6 \xrightarrow{+2}$	$8 \xrightarrow{+2}$	$10 \xrightarrow{+2}$	12

2. (D) From I $\frac{6+7+8}{3} = \frac{21}{3} = 7$

From II $\frac{7+15+13}{5} = \frac{35}{5} = 7$

From IV $\frac{15+28+20}{9} = \frac{63}{9} = 7$

From III $\frac{4+25+?}{7} = 7$

$\Rightarrow$ $29 + ? = 49$

$\therefore$ $? = 49 - 29$

$= \boxed{20}$

3. (A)

$5 \xrightarrow{+3}$	$8 \xrightarrow{+6}$	$14 \xrightarrow{+12}$	26
$7 \xrightarrow{+4}$	$11 \xrightarrow{+8}$	$19 \xrightarrow{+16}$	35
$6 \xrightarrow{+7}$	$13 \xrightarrow{+14}$	$27 \xrightarrow{+28}$	55
$10 \xrightarrow{+8}$	$18 \xrightarrow{+16}$	$\boxed{34} \xrightarrow{+32}$	66

4. (B) From I $(1)^2 + (3)^2 + (5)^2 = 1 + 9 + 25$

$= 35$

From II $(7)^2 + (3)^2 + (4)^2 = 49 + 9 + 16$

$= 74$

From III $(6)^2 + (?)^2 + (8)^2 = 104$

$36 + (?)^2 + 64 = 104$

$100 + (?)^2 = 104$

$(?)^2 = 104 - 100$

$= 4$

$? = \sqrt{4} = 2$

5. (C) From I $7 + 8 = 9 + 6$

$\Rightarrow$ $15 = 15$

From II $14 + 10 = 16 + 8$

$\Rightarrow$ $24 = 24$

From III $11 + ? = 10 + 10$

$\Rightarrow$ $11 + ? = 20$

$\therefore$ $? = 20 - 11$

$= 9$

6. (D) From I $2 + 5 = 7$

$7 \times 2 + 1 = 15$

Which is a third number.

From II $6 + 7 = 13$

$13 \times 2 + 1 = 27$

Which is a third number.

$\therefore$ From III $5 + 7 = 12$

$12 \times 2 + 1 = \boxed{25}$

7. (A) From I $(6 + 5) \times 3 = 33$

From II $(8 + 3) \times 4 = 44$

From III $(6 + 9) \times 7 = 105$

$\therefore$ From IV $(9 + 6) \times ? = 60$

$\Rightarrow$ $? = \frac{60}{15} = 4$

8. (C) From I $(6 + 9 + 11) + 1 = 27$

From II $(2 + 4 + 5) + 1 = 12$

From III $(13 + 7 + 4) + 1 = 25$

$\therefore$ From IV $(20 + 25 + 7) + 1 = \boxed{53}$

9. (B) From I $(2 + 4 + 5) + 1 = 12$

From II $(7 + 8 + 6) + 1 = 22$

From III $(10 + 15 + 12) + 1 = 38$

$\therefore$ From IV $(26 + 7 + ?) + 1 = 34$

$\therefore$ $? = 0$

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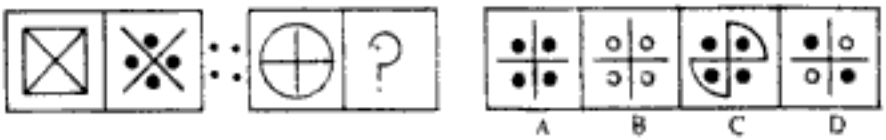
Problem Figures **Answer Figures**

1. 

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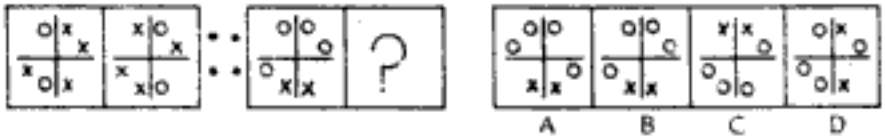
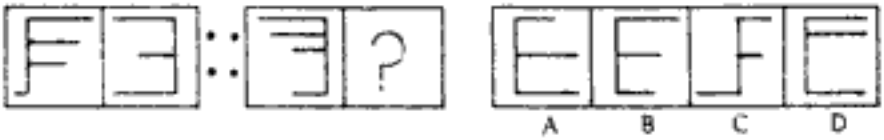
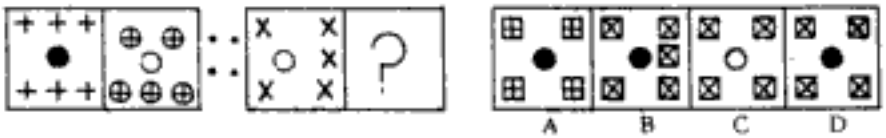
3. 

4. 

5. 

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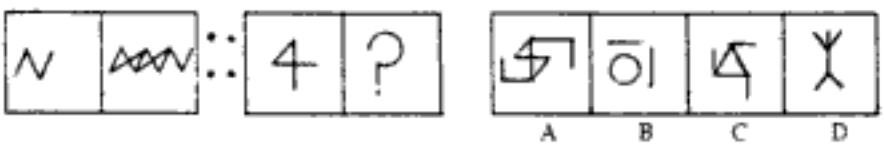
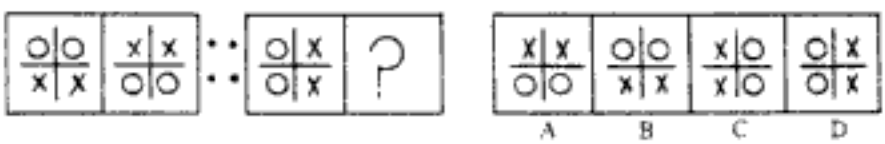
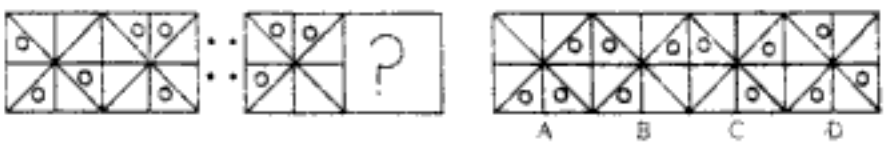
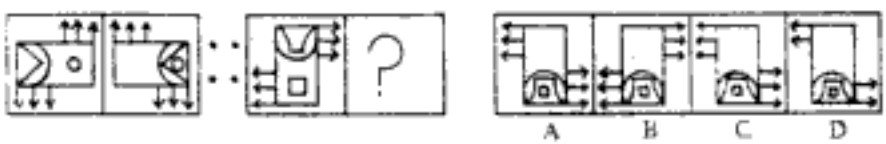
7. 

8. 

9. 

10. 

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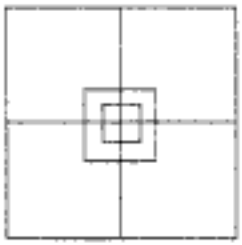
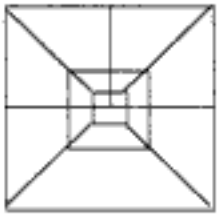
4. How many squares are there in the following figure ?



(A) 13 (B) 14
(C) 16 (D) 15

5. How many squares are there in the following figure ?



(A) 9 (B) 5
(C) 8 (D) 7

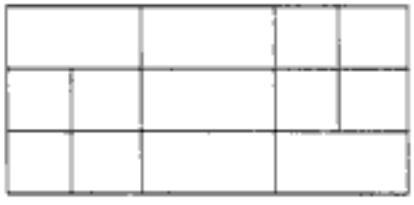
6. How many rectangles are in the following figure ?

(A) 18 (B) 19
(C) 15 (D) 17

7. How many rectangles are the in the following figure ?

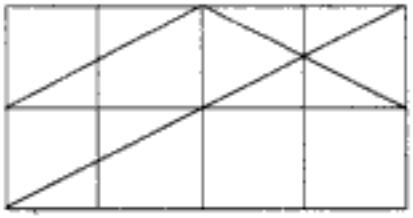
(A) 19 (B) 28
(C) 27 (D) 23

8. How many squares are there in the following figure ?



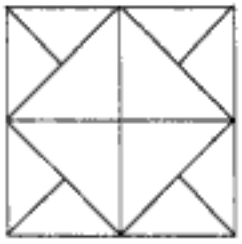
(A) 10 (B) 12
(C) 14 (D) 16

9. How many triangles are there in the following figure ?



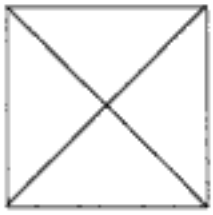
(A) 23 (B) 19
(C) 18 (D) 21

10. How many triangles are there in the following figure ?



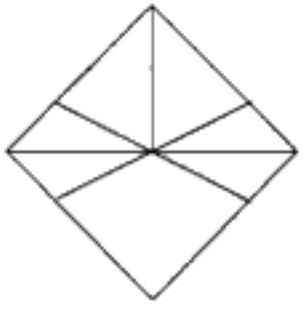
(A) 16 (B) 20
(C) 22 (D) 12

11. How many triangles are there in the following figure ?



(A) 8 (B) 4
(C) 6 (D) 10

12. How many triangles are there in the following figure ?



(A) 7 (B) 10
(C) 8 (D) 9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