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Alpha Numeric Symbol Series Questions for SBI PO Pre, IBPS PO Pre, RRB Scale I Pre, LIC AAO, SBI Clerk Mains and IBPS Clerk Mains Exams.

SET – 1

Directions: The questions are based upon the following series.

T % U 4) 6 & K Y ^ A 2 $ 8 L G | 3 M @ F P 7 ! C ~ H 9 Q : E 1 B 5

1.   **If all the vowels are skipped from the series then which of the following will be third to the left of the tenth element from right end?**

A. @   B. P   C. F   D. 7   E. None of these

2.   **How many numbers in the given series are immediately preceded by a consonant and immediately followed by a symbol?**

A. 3   B. 4   C. 2   D. None   E. None of these

3.   **Four of the following five are alike in a certain way and thus form a group. Which of the following does not belong to the group?**

A. 4&U   B. 6Y)   C. 7~P   D. 9EH   E. 15E

4.   **What will be the resultant when second prime number from left end is multiplied with the first composite number from left end of the series?**

A. 8   B. 12   C. 10   D. 16   E. None of these

5.   **Which of the following meaningful word cannot be formed using the letters that come between second even number from left end and forth odd number from right end?**

A. Map   B. Palm   C. Glad   D. Flag   E. Play

SET – 2

Directions: Following questions are based on the five three-digit numbers given below.

785   243   634   397   572

6.   **After arranging all the digits in increasing order (within the number) what is the sum of third digit of the highest number and first digit of the lowest number so formed?**

A. 12   B. 8   C. 10   D. 9   E. None of these

7. If 1 is added to each even digit and 1 is subtracted from each odd digit and then how many numbers so formed will be fully divisible by 2?

A. 1   B. 2   C. 3   D. 4   E. 5

8. Which of the following numbers will be placed exactly in the middle of the series when all the numbers are changed to product of their digits and then arranged in ascending order from left to right?

A. 785   B. 243   C. 634   D. 397   E. 572

9. What will be the resultant when third digit of third highest number is subtracted from the first digit of second highest number?

A. 4   B. 1   C. 3   D. 6   E. 2

10. If all the prime digits are increased by 1 and all the composite digits are decreased by 1, then which of the following digits appear maximum times in the new sequence so formed?

A. 3   B. 4   C. 8   D. Both A and C   E. All of these

SET – 3

Directions: The questions are based on the 5 four-digit numbers given below.

2764 7983 9862 5493 6278

11. If in each number, all the composite digits are changed to their just previous prime number and all the prime digits are changed to their just next composite number then how many times '7' is repeated in the new sequence?

A. 6   B. 5   C. 4   D. 7   E. None of these

12. If first and third digits of each number are interchanged and then numbers are arranged in ascending order then which of the following will be the second number from right end?

A. 2764   B. 9862   C. 7983   D. 5493   E. 6278

13. If all the digits are arranged in descending order within the number, then which of the following are the second greatest and the second lowest number respectively?

A. 9862 and 5487   B. 9862 and 7983   C. 9862 and 2764   D. 9862 and 6278   E. None of these

14. If all the digits are arranged in ascending order within each of the numbers, how many such numbers are there in the new arrangement in which the positions of all the digits get changed within the number?

A. 2   B. 4   C. 1   D. 3   E. None

15. If all the digits are arranged in ascending order within each of the numbers and the product of first two digits of each new number is calculated, which of the following original number gives an odd number as resultant?

A. 6278   B. 5493   C. 2764   D. 7983   E. 8962

SET – 4

Direction: Study the following alphanumeric sequence carefully and answer the questions given below:

H 8 J + A 9 # K Y @ L 4 $ N 5 3 B G & % X 1 ÷ 2 V > T O

STEP I – The letters which are followed by a symbol are to be arranged in alphabetical order at the right end of the series. (Just after O)

STEP II – The numbers which are preceded by a consonant will be arranged between '&' and '%' in descending order.

STEP III – The symbols which are preceded by a letter will be arranged such that 1st symbol will be arranged at the left end, the 2nd symbol will be arranged at the right end, 3rd symbol will again be arranged at the left end and so on.

Note: STEP II is applied after STEP I and STEP III is applied after STEP II. And all operations will be applied.

16. How many such symbol(s) are there in the sequence after STEP III which are followed by a letter and preceded by a number?

A. One   B. Two   C. Three   D. Four   E. Five

17. What is the sum of the numbers occurring between & and % in the sequence after STEP III?

A. 2   B. 18   C. 10   D. 12   E. 7

18. Which of the following element will be 6th to the right of 18th element from the right end in the sequence after STEP III?

A. >   B. @   C. 2   D. %   E. 4

19. Which of the following number is/are there which is/are followed by and preceded by a consonant in the sequence after STEP III ?

A. 5   B. 9   C. 4   D. 3   E. 2

20. Which of the following pairs of elements will be there at end of the series in the sequence after STEP III?

A. H, O   B. H, Y   C. ÷, Y   D. 8, Y   E. ÷, &

SET – 5

Directions: Study the following numbers carefully and answer the questions given beside:

O 8 F # 4 @ M 2 E Q % R T & 6 Z * N S $ 7 A

Step 1: If a symbol is immediately preceded and followed by a letter then write it between 6 and Z.

Step 2: If a number is immediately preceded by a symbol and immediately followed by a letter then write it between M and 2.

Note: Step 2 is performed after completion of step 1.

21. With respect to the sequence after step 2, four of the following five are alike in some way and thus form a group. Which of the following does not belong to the group?

A. ERM   B. ZS6   C. 4M8   D. QT7   E. 6*T

22. How many symbols are to the the left of second vowel from right end in the sequence obtained after step 1?

A. None   B. One   C. Two   D. Three   E. More than three

23. How many elements are between the second composite number from left end and first prime number from right end in the sequence obtained after step 2?

A. None   B. One   C. Two   D. Three   E. More than three

24. How many numbers are there which is/are immediately preceded by a letter if all the vowels are dropped from the sequence after step 1?

A. One   B. Two   C. Three   D. None   E. None of these

25. With respect to the sequence after step 2, how many letters are there which is/are immediately preceded by a number and immediately followed by a symbol?

A. None   B. One   C. Two   D. Four   E. None of these

SET – 6

Directions: Study the following numbers carefully and answer the questions given beside:

5836 7469 8251 6293 4172

26. If the digits of all the numbers are to be arranged in ascending order within the number from right to left then the numbers thus formed are to be arranged in descending order from left to right then what would be the sum of second digit of third number from left end and third digit of fourth number from right end?

A. 12   B. 10   C. 7   D. 9   E. 11

27. If in each number first digit is interchanged with second digit and third digit is interchanged with fourth digit after that first digit is interchanged with fourth digit then what would be the difference of highest and second lowest numbers thus formed?

A. 3280   B. 3820   C. 2230   D. 2380   E. 2320

28. If all the odd digits of each number are decreased by 1 and all the even digits of each number are divided by 2 then the even numbers thus formed are arranged in descending from left to right and on the right of these all odd numbers are arranged in ascending order then which of the following numbers will be in the middle of the sequence?

A. 3186   B. 4172   C. 3182   D. 8251   E. 7469

29. If all the numbers are arranged in descending order then what will the product of second digit of the third number from the right end and third digit of the forth number from the left end?

A. 9   B. 8   C. 6   D. 18   E. 20

30. Find the number the sum of all the digits of which is equal to the sum of all the smallest digits taken from all the numbers.

A. 5836   B. 4172   C. 6293   D. 8251   E. None of these

SET – 7

Directions: These questions are based on the following arrangement of letters/numbers/symbols. Study them carefully and answer the questions given beside.

5 H β 3 % T I L 4 $ E 6 F 1 R M @ A # B D 2 8 U & C

31. If all the numbers, vowels and the symbol '&' are removed from the above arrangement, which of the following will be the eighth element from the left end?

A. L   B. @   C. M   D. R   E. None of these

32. Which of the following is the fifth to the right of eighth element to the left of the thirteenth element from the left end?

A. β   B. T   C. A   D. $ E. None of these

33. How many such numbers are there in the above arrangement each of which is immediately followed by a symbol and also immediately preceded by a letter?

A. One   B. Two   C. Three   D. Four   E. None of these

34. If first five and the last five elements are written in reverse order, how many symbols are there that will be immediately followed by a letter?

A. Only one   B. Two   C. Three   D. Four   E. None of these

35. Four of the five are alike in a certain way based on their positions in the above arrangement and hence form a group. Find out the one that does not belong to that group?

A. 35   B. 4T   C. 64   D. RA   E. 8B

SET – 8

Directions: Study the following arrangement carefully and answer the questions given beside.

6 7 8 9 9 8 7 9 7 7 8 9 7 8 7 6 9 6 8 9 7 7 9 8 9 7 6 6 8 7

36. How many such digits are there in the given series each of which when subtracted from the following digit, gives 1 as resultant?

A. Three   B. Four   C. None   D. More than four   E. None of these

37. **Which of the following numbers will be obtained when the 18th number from the right end is added to the 19th number from the left end of the series?**

A. 17   B. 15   C. 16   D. 18   E. None of these

38. **How many odd numbers are there in the numeric series which are immediately preceded by a number, which is a perfect cube?**

A. Six   B. Seven   C. Eight   D. More than eight   E. None of these

39. **If 2 is subtracted from all odd numbers and 1 is subtracted from all even numbers in the given number series, then which number will be sixteenth from the right end?**

A. 7   B. 5   C. 9   D. 8   E. None of these

40. **How many such even numbers are there which is immediately followed by a perfect square in the above series?**

A. Only one   B. Two   C. Three   D. Five   E. None of these
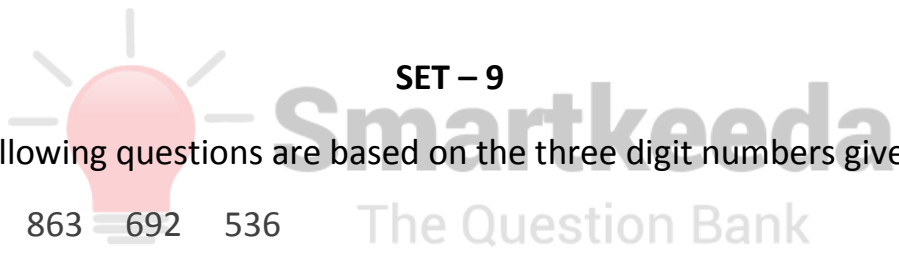
SET – 9

Directions: The following questions are based on the three digit numbers given below:

972   938   895   863   692   536

41. **If the sum of the first and the last digits of a number is even then change the middle digit of that number to 8 and if the sum of the first and the last digits of a number is odd then interchange the first and last digit then which of the following numbers thus formed will be lowest?**

A. 895   B. 863   C. 938   D. 692   E. 972

42. **What would be the third highest number obtained after subtracting 2 from every odd digit of the given sequence and adding 1 to every even digits of the given sequence and then interchanging the first digit with third digit?**

A. 972   B. 938   C. 895   D. 692   E. 536

43. **If all the digits are arranged in decreasing order from left to right within the numbers and then the numbers thus formed are arranged in increasing order from right to left. Then which of the following numbers will be second from left end?**

A. 972   B. 938   C. 895   D. 863   E. 692

44. If the sum of the highest and the lowest number is divided by the difference of the third highest and the third lowest number and the resultant is then multiplied by 8, which of the following numbers will we finally get?

A. 256   B. 284   C. 310   D. 377   E. 436

45. If all the digits within the number are multiplied to each other than how many numbers thus formed will be less than 200?

A. 1   B. 2   C. 3   D. 4   E. 5

SET – 10

Directions: These questions are based on the following arrangement of letters/numbers/symbols. Study them carefully and answer the questions given beside.

W 1 R % 4 J E # 7 M T 2 I 9 B H 3 A $ 9 F Q 5 D G 6 U S P

46. Which of the following is the seventh to the right of the eighteenth from the right end?

A. A   B. E   C. $ D. #   E. None of these

47. What should come in place of question mark on the basis of the above arrangement?

R 4 #   M 2 B   3 $ Q   ?

A. 5 G U   B. D 6 S   C. 5 G S   D. D 6 P   E. None of these

48. If the positions of E and A are interchanged and similarly the positions of R and U are interchanged then how many symbols will be there each of which is either preceded or followed by a vowel ?

A. None   B. One   C. Two   D. Three   E. Four

49. If the order of the last fifteen elements is reversed, which of the following will be fifth to the right of twelfth from the left end ?

A. U   B. $ C. 3   D. 6   E. None of these

50. Four of the following five are alike in a certain way on the basis of above arrangement and hence form a group. Which one does not belong to that group ?

A. R W 4   B. 5 F G   C. 9 Q A   D. 3 B $ E. 7 E T

CORRECT ANSWERS:

1	C	11	A	21	E	31	D	41	E
2	E	12	C	22	C	32	D	42	C
3	E	13	D	23	D	33	A	43	B
4	B	14	C	24	A	34	E	44	D
5	C	15	D	25	B	35	D	45	D
6	C	16	C	26	D	36	D	46	C
7	C	17	A	27	B	37	B	47	D
8	C	18	D	28	C	38	B	48	D
9	A	19	D	29	C	39	B	49	A
10	D	20	E	30	E	40	D	50	C

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Explanations:

1. Series given : T % U 4) 6 & K Y ^ A 2 $ 8 L G | 3 M @ F P 7 ! C ~ H 9 Q : E 1 B 5

When vowels are skipped:

T % 4) 6 & K Y ^ 2 $ 8 L G | 3 M @ F P 7 ! C ~ H 9 Q : 1 B 5

Clearly, "F" is third to the left of 10th element from right end.

Hence option C is correct.

2. Series given : T % U 4) 6 & K Y ^ A 2 $ 8 L G | 3 M @ F **P 7 !** C ~ H 9 Q : E 1 B 5

Only one number (given in bold) is immediately preceded by a consonant and immediately followed by a symbol.

Hence option E is correct.

3. Series given : T % U 4) 6 & K Y ^ A 2 $ 8 L G | 3 M @ F P 7 ! C ~ H 9 Q : E 1 B 5

15E is the odd one out as it does not follow the below mentioned logic.

Second element is third to the right of first element and third element is immediate left of first element.

Hence option E is correct.

4. Series given : T % U 4) 6 & K Y ^ A 2 $ 8 L G | 3 M @ F P 7 ! C ~ H 9 Q : E 1 B 5

Second prime number from left end is 3.

First composite number from left end is 4.

Product = 12.

Hence option B is correct.

5. Series given : T % U 4) 6 & K Y ^ A 2 $ 8 L G | 3 M @ F P 7 ! C ~ H 9 Q : E 1 B 5

Second even number from left end is 6 and forth odd number from right end is 7.

Letters between 6 and 7 are – K,Y,A,L,G,M,F and P.

Only "Glad" is the word in which letter 'd' is not among the above mentioned letters.

Hence option C is correct.

6. Series given : 785 243 634 397 572

New series : 578 234 346 379 257

The lowest number is 234, whose first digit is 2.

The highest number is 578, whose third digit is 8.

Required sum = 10.

Hence option C is correct.

7. Series given : 785 243 634 397 572

New series : 694 352 725 286 463

Clearly only 3 numbers are fully divisible by 2.

Hence option C is correct.

8. Series given :   785 243 634 397 572

Changed series: 280 24 72 189 70

New series :   24 70 72 189 280

Clearly 72 is written exactly in the middle of the series, which represents 634.

Hence option C is correct.

9. Series given : 785 243 634 397 572

Third highest number is 572 and its third digit is 2.

Second highest number is 634 and its first digit is 6.

Required difference = 4

Hence option A is correct.

10. Series given : 785 243 634 397 572

New Series : 876 334 543 488 683

Clearly 8 and 3 both are seen four times which is maximum.

Hence option D is correct.

11. **Given Sequence: 2764 7983 9862 5493 6278**

New Sequence: 4853 8774 7754 6374 5487

Here '7' is repeated 6 times in the new sequence.

Note- Prime digits are colored with bold red and Composite digits are bold black.

Hence option A is correct.

12. **Given Sequence:** 2764 7983 9862 5493 6278

New Sequence: 6724 8973 6892 9453 7268

Ascending order: 6724 6892 7268 **8973** 9453

Here second number from right end is "8973" which represents "7983".

Hence option C is correct.

13. **Given Sequence:** 2764 7983 9862 5493 6278

New Sequence: 7642 9873 **9862** 9543 **8762**

Here the second greatest number is '9862' which represents "9862".

The second lowest number is '8762' which represents "6278".

Hence option D is correct.

14. **Given Sequence:** 2764 7983 9862 5493 6278

New Sequence: 24<u>6</u>7 37<u>8</u>9 **2689** 3<u>4</u>59 26<u>78</u>

Only one number is there in the new arrangement in which the positions of all the digits get changed within the number.

Hence option C is correct.

15. **Given Sequence:** 2764 7983 9862 5493 6278

Ascending order: 2467 3789 2689 3459 2678

product of first two digits: 8 21 12 12 12

Here after changing all digits of "7983" in ascending it gives "21" as resultant which is an odd an number.

Hence option D is correct.

Common Explanation: (Q. 16 to Q. 20)

We have the given alphanumeric sequence,

H 8 J + A 9 # K Y @ L 4 $ N 5 3 B G & % X 1 ÷ 2 V > T O

Here, we also have a hint that while solving the alphanumeric sequence STEP II is applied after STEP I and STEP III is applied after STEP II.

So, in the above alphanumeric sequence firstly we will apply Step I then Step II and at last Step III will be applied.

Now, in the **STEP I –** The letters which are followed by a symbol are to be arranged in alphabetical order at the right end of the series. (Just after O)

Here, the letters which are followed by a symbol are '**J**', '**Y**', '**G**' and '**V**'.

H 8 **J** + A 9 # K **Y** @ L 4 $ N 5 3 B **G** & % X 1 ÷ 2 **V** > T O

Now, these letters will be arranged in alphabetical order at the left end of the series.

It is also given that the new arrangement will start just after O.

After applying the above conditions the given alphanumeric sequence can be written as:

H 8 + A 9 # K @ L 4 $ N 5 3 B & % X 1 ÷ 2 > T O **G J V Y**

Thus, the alphanumeric sequence obtained after applying Step I is:

H 8 + A 9 # K @ L 4 $ N 5 3 B & % X 1 ÷ 2 > T O G J V Y

In the above alphanumeric sequence Step II will be applied.

In the **STEP II –** The numbers which are preceded by a consonant will be arranged between '&' and '%' in descending order.

In the alphanumeric sequence that obtained after Step I, the numbers which are preceded by a consonant are '**8**', '**4**', '**5**' and '**1**'.

H **8** + A 9 # K @ L **4** $ N **5** 3 B & % X **1** ÷ 2 > T O G J V Y

It is also given that the numbers which follows the given criteria will be arranged between '&' and '%' in descending order.

After applying the above conditions STEP II of the given alphanumeric sequence can be written as:

H + A 9 # K @ L $ N 3 B & **8 5 4 1** % X ÷ 2 > T O G J V Y

Thus, the alphanumeric sequence obtained after applying Step II is:

H + A 9 # K @ L $ N 3 B & 8 5 4 1 % X ÷ 2 > T O G J V Y

Now, in the above alphanumeric sequence Step III will be applied.

We have, in the **STEP III –** The symbols which are preceded by a letter will be arranged such that 1st symbol will be arranged at the left end, the 2nd symbol will be arranged at the right end, 3rd symbol will again be arranged at the left end and so on.

In the alphanumeric sequence that obtained after Step II the symbols which are symbols which are preceded by a letter are **+**, **@**, **$**, **&** and **÷**.

H **+** A 9 # K **@** L **$** N 3 B **&** 8 5 4 1 % X **÷** 2 > T O G J V Y

It is also given that these symbols will be arranged such that 1st symbol will be arranged at the left end, the 2nd symbol will be arranged at the right end, 3rd symbol will again be arranged at the left end and so on.

After applying the above conditions the given alphanumeric sequence can be written as:

÷ $ + H A 9 # K L N 3 B 8 5 4 1 % X 2 > T O G J V Y **@ &**

Thus, the alphanumeric sequence obtained after applying Step III is:

÷ $ + H A 9 # K L N 3 B 8 5 4 1 % X 2 > T O G J V Y **@ &**

Answers :

16.   We have, in the sequence after STEP III:

÷ $ + H A 9 **#** K L N 3 B 8 5 4 1 **%** X 2 **>** T O G J V Y @ &

Here, the symbols which are followed by letter and preceded by a number are **#**, **%** and **>**.

Hence, the correct answer is option **C**.

17.   Following the final solution we can say that the numbers occurring between & and % in the sequence after STEP III is 2.

Hence, the correct answer is option **A**.

18.   Following the final solution we can say that the % will be 6th to the right of 18th element from the right end in the sequence after STEP III.

Hence, the correct answer is option **D**.

19.   Following the final solution we can say that 3 is followed by and preceded by a consonant in the sequence after STEP III.

Hence, the correct answer is option **D**.

20. Following the final solution we can say that the ÷, & are there at the end of the series in the sequence after STEP III.

Hence, the correct answer is option **E**.

Common Explanation: (Q. 21 to Q. 25)

Given Sequence:

O 8 F # 4 @ M 2 E **Q % R** T & 6 **Z * N** S $ 7 A

Step 1: If a symbol is immediately preceded and followed by a letter then write it between 6 and Z.

Sequence after step 1:

There are two symbols which are immediately preceded and followed by a letter which are - % and *

O 8 F # 4 @ M 2 E Q R T & 6 % * Z N S **$ 7 A**

Step 2: If a number is immediately preceded by a symbol and immediately followed by a letter then write it between M and 2.

Sequence after step 2:

There is only one number '7' which is immediately preceded by a symbol '$' and immediately followed by letter 'A'.

O 8 F # 4 @ M 7 2 E Q R T & 6 % * Z N S $ A

Answers :

21. From the following explanation it is clear that '6*T' is the odd one out because 'T' is not third to the left of 6 in the sequence after step 2.

Logic: Second element is second to the right of first element; third element is third to the left of first element.

Hence option E is correct.

22. From the following explanation it is clear that there are two symbols (@,#) to the left of second vowel from right end (E) in the sequence after step 1.

Hence option C is correct.

23. From the following explanation it is clear that there are three elements(@,M,7) between the second composite number from left end (4) and first prime number from right end (2) in the sequence after step 2.

Hence option D is correct.

24. **Sequence after step 1:**

O 8 F # 4 @ M 2 E Q R T & 6 % * Z N S $ 7 A

The new sequence after dropping all the vowels:

 8 F # 4 @ **M 2** Q R T & 6 % * Z N S $ 7

Only one number is there which is immediately preceded by a letter.

Hence option A is correct.

25. **Sequence after step 2:**

O **8 F #** 4 @ M 7 2 E Q R T & 6 % * Z N S $ A

Only one letter is there which is immediately preceded by a number and immediately followed by a symbol

Hence option C is correct.

26. We have,

The given sequence = 5836   7469   8251   6293   4172

After arranging the digits of all the numbers in ascending order within the number from right to left, we get:

8653   9764   8521   9632   7421

After, arranging the newly formed in descending order from left to right, we get:

9764   9632   8653   8521   7421

Here, third number from left end is '8653' and second digit of '8**6**53' is '6'.

And, fourth number from right end is '9632' and third digit of '96**3**2' is '3'.

Required Sum = 6 + 3 **= 9**
Hence, the correct answer is option **D**.

27. We have,

The given sequence = 5836   7469   8251   6293   4172

After interchanging first digit with second digit and third digit with fourth digit, we get:

8563   4796   2815   2639   1427

Now, interchanging first and fourth digit of each of the above number, we get:

3568   6794   5812   9632   7421

Here, the highest and second lowest numbers are '9632' and '5812'

Required Difference = 9632 – 5812 **= 3820**

Hence, the correct answer is option **B**.

28. We have,

The given sequence = 5836   7469   8251   6293   4172

After subtracting 1 from all the odd digits of each number and dividing all the even digits of each number by 2, we get:

4423   6238   4140   3182   2061

Now, arranging all the even numbers in descending order from left to right, we get:

6238   4140   3182

After arranging all the odd number in ascending order on the right of above numbers, we get:

6238   4140   3182   2061   4423

The, number in the middle of the sequence is '3182'.

Hence, the correct answer is option **C**.

29. We have,

The given sequence = 5836   7469   8251   6293   4172

After changing the numbers in descending order, we get:

8251   7469   6293   5836   4172

Now, we have:

The Third number from the right end - 6293

The second digit of the third number -2

The forth number from the left end - 5836

The third digit of the forth number – 3

The product of the numbers -2*3 = 6

the product of second digit of the third number from the right end and third digit of the forth number from the left end is 6.

Hence, the correct answer is option C.

30. We have,

The given sequence = 5836   7469   8251   6293   4172

The smallest digit of each number – 3, 4, 1, 2, 1

The sum of all smallest digits of each number,

3 + 4 + 1 + 2 + 1=11

The sum of all digits of each number,

5 + 8 + 3 + 6 = 22

7 + 4 + 6 + 9 = 26

8 + 2 + 5 + 1 = 16

6 + 2 + 9 + 3 = 20

4 + 1 + 7 + 2 = 14

the sum of all the digits of each number is not equal to the sum of all the smallest digits taken from all the numbers.

Hence, the correct answer is option E.

31. If we remove the numbers, vowels and the symbol '&' from the above arrangement, the arrangement will be like:

H β % T L $ F **R** M @ # B D C

Clearly, 'R' is the eighth element from the left end.

Option D is hence the correct answer.

32. The 13th element from the left end = F

The resultant direction = 8th to the left - 5th to the right = 3rd to the left = $

Option D is hence the correct answer.

33. 5 H β 3 % T I **L 4 $** E 6 F 1 R M @ A # B D 2 8 U & C

Clearly, only 1 such permutation exists.

Option A is hence the correct answer.

34. <u>% 3 **β H** 5</u> T I L 4 **$ E** 6 F 1 R M **@ A # B** D <u>C **& U** 8 2</u>

Clearly, 5 such permutations exist.

Option E is hence the correct answer.

35. 5 H β 3 % T I L 4 $ E 6 F 1 R M @ A # B D 2 8 U & C

In all the permutations except given as option D, the second element is 3 steps left to the first element. In option D, the second element is 3 steps right to the first element.

Option D is hence the correct answer.

36. **The given series:**
6 7 **8** 9 9 8 7 9 7 **7 8** 9 **7** 8 7 6 9 6 **8** 9 7 7 9 **8** 9 7 6 6 8 7

Here, we can see that there are seven such digits in the given series each of which when subtracted from the following digit, gives 1 as resultant.

Hence, the correct answer is option D.

37. **The given series:**

6 7 8 9 9 8 7 9 7 7 7 8 **9** 7 8 7 6 9 6 **8** 9 7 7 7 9 8 9 7 6 6 8 7

The 18th number from the right end = 7

The 19th number from the left end = 8

Now, we get:

7 + 8 = 15

Hence, the correct answer is option B.

38. **The given series:**

6 7 8 **9** 9 8 **7** 9 7 7 8 **9** 7 8 **7** 6 9 6 8 **9** 7 7 7 9 8 **9** 7 6 6 8 **7**

Following the above series, we can say that there are seven such numbers which are immediately preceded by a perfect cube.

Hence, the correct answer is option B.

39. **The given series:**

6 7 8 9 9 8 7 9 7 7 8 9 7 8 7 6 9 6 8 9 7 7 9 8 9 7 6 6 8 7

Now, the series after applying above condition:

5 5 7 7 7 7 5 7 5 5 7 7 5 7 **5** 5 7 5 7 7 5 5 7 7 7 5 5 5 7 5

The sixteenth number from the right end = 5

Hence, the correct answer is option B.

40. **The given series:**

6 7 **8** 9 9 8 7 9 7 7 **8** 9 7 8 7 **6** 9 6 **8** 9 7 7 9 **8** 9 7 6 6 8 7

Hence, the correct answer is option D.

41. **The given sequence:**

972 938 895 863 692 536

Applying above conditions in the given sequence, we get:

279 839 598 368 286 635

The lowest number is 279.

Hence, the correct answer is option E.

42. **The given sequence:**
972 938 895 863 692 536

Applying above conditions in the given sequence, we get:
357 917 379 179 377 713

The third highest number is 379.

Hence, the correct answer is option C.

43. **The given sequence:**
972 938 895 863 692 536

Applying above conditions in the given sequence, we get:
985 983 972 962 863 653

The second number from left end is 983.

Hence, the correct answer is option B.

44. **The given sequence:**
972 938 895 863 692 536

Applying above conditions in the given sequence, we get:
Sum of the highest and the lowest number is 972 + 536 = 1508

Difference of the third highest and the third lowest number is 895 − 863 = 32 (1508/32)×8 = 377

The number we get is 377

Hence, the correct answer is option D.

45. **The given sequence:**

972   938   895   863   692   536

Applying above conditions in the given sequence, we get:

126   216   360   144   108   90

There four such number that are less than 200.

Hence, the correct answer is option D.

46. **Note :** In case of same directions we take the difference of the positions and calculate the resultant position of an element from the given end of the series.

∴ 7th to the right of the 18th from the right end means (18 – 7) = 11th from the right end, i.e., $.

Hence, option C is correct.

47. Each element of each term moves 7 steps forward to give the corresponding element of the next term.

Hence option D is correct.

48. Such symbols in the new arrangement may be indicated as follows :

W 1 U **%** 4 J A **#** 7 M T 2 I 9 B H 3 E **$** 9 F Q 5 D G 6 R S P

There are three symbols (%, #, $) that satisfy the given condition.

Hence option D is correct.

49. The new arrangement is :

W 1 R % 4 J E # 7 M T 2 I 9 P S U 6 G D 5 Q F 9 $ A 3 H B

Note : In case of opposite directions we add the positions and calculate the resultant position of an element from the given end of the series.

∴ 5th to the right of 12th from the left end means (5 + 12) = 17th from the left end, i.e., U

Hence option A is correct.

50. In all other groups, the first and second elements move 2 steps backward and 4 steps forward respectively to give the second and third elements.

Hence option C is correct.