Alphanumeric Series

SET - 1

Directions: The questions are based upon the following series. T%U4)6&KY^A2\$8LG|3M@FP7!C~H9Q:E1B5 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? F. None of these A. 3 B. 4 C. 2 D. None 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? B. 6Y) C. 7~P A. 4&U 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 F. 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? B. Palm C. Glad D. Flag E. Play A. Map 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 adde many num	ed to each even dig bers so formed wil	git and 1 is subtrac I be fully divisible b	ted from each odd oy 2?	digit and then how
A. 1		B. 2	C. 3	D. 4	E. 5
8.	Which of th when all th ascending o	he following numb ne numbers are cha order from left to r	ers will be placed e inged to product of ight?	exactly in the midd f their digits and th	e of the series en arranged in
A. 785	5	B. 243	C. 634	D. 397	E. 572
9.	What will k the first dig	be the resultant where the resultant where the resultant where the second highest second highest second high secon	nen third digit of th st number?	nird highest numbe	er is subtracted from
A. 4		B. 1	C. 3	D. 6	E. 2
10.	If all the pr 1, then wh formed?	rime digits are incr ich of the followin	eased by 1 and all ng digits appear ma	the composite dig aximum times in t	its are decreased by he new sequence so
A. 3		B. 4	C. 8	D. Both A and C	E. All of these
			SET – 3		
Direc	tions: The q	uestions are based	on the 5 four-digit	numbers given be	low.
Direc 2764	tions: The q 7983 9862 54	uestions are based	on the 5 four-digit	: numbers given be	low.
Direc 2764 11.	tions: The q 7983 9862 54 If in each n number an how many	uestions are based 193 6278 1umber, all the com 1d all the prime digi 1 times '7' is repeate	on the 5 four-digit posite digits are cl its are changed to t ed in the new sequ	numbers given be nanged to their jus their just next com ence?	low. t previous prime posite number then
Direc 2764 11. A. 6	tions: The q 7983 9862 54 If in each n number an how many	uestions are based 193 6278 number, all the com Id all the prime digi times '7' is repeate B. 5	on the 5 four-digit posite digits are cl its are changed to t ed in the new sequ C. 4	numbers given be nanged to their just their just next com ence? D. 7	l ow. t previous prime posite number then E. None of these
Direc 2764 11. A. 6 12.	tions: The q 7983 9862 54 If in each n number an how many If first and arranged in from right	uestions are based 193 6278 10 umber, all the com 10 d all the prime digitimes '7' is repeate 10.5 10 d third digits of e 11 n ascending order 11 end?	on the 5 four-digit posite digits are ch its are changed to t ed in the new sequ C. 4 each number are then which of the	numbers given be nanged to their just their just next com ence? D. 7 interchanged and following will be	low. t previous prime posite number then E. None of these then numbers are the second number
Direc 2764 11. A. 6 12. A. 276	tions: The q 7983 9862 54 If in each n number an how many If first and arranged in from right	uestions are based 493 6278 number, all the com id all the prime digitimes '7' is repeate B. 5 d third digits of e n ascending order end? B. 9862	on the 5 four-digit posite digits are chits are changed to the ed in the new sequ C. 4 each number are then which of the C. 7983	nanged to their just their just next com ence? D. 7 interchanged and following will be D. 5493	How. t previous prime posite number then E. None of these then numbers are the second number E. 6278
Dired 2764 11. A. 6 12. A. 276 13.	tions: The q 7983 9862 54 If in each n number an how many If first and arranged in from right 54 If all the dia following a	uestions are based 193 6278 10mber, all the com 1d all the prime digitines '7' is repeate B. 5 d third digits of e n ascending order end? B. 9862 gits are arranged in are the second great	on the 5 four-digit posite digits are ch its are changed to t ed in the new seque C. 4 C. 4 C. 7983 C. 7983	nanged to their just their just next comence? D. 7 interchanged and following will be D. 5493 within the numbe d lowest number r	How. t previous prime posite number then E. None of these then numbers are the second number E. 6278 r, then which of the espectively?

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?

D. 3

A. 2

C. 1

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

B. 4

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 r STEP III?	numbers occurrir	ng between & and	% in the sequence	e after
A. 2	B. 18	C. 10	D. 12	E. 7	
18.	Which of the following ele end in the sequence after	ement will be 6th STEP III?	n to the right of 18t	h element from th	e right
A. >	В. @	C. 2	D. %	E. 4	

19.	Which of th a consonan	ne following numbers tin the sequence a	er is/are there whi after STEP III ?	ch is/are followed	by and preceded by	
A. 5		В. 9	C. 4	D. 3	E. 2	
20.	Which of t	he following pairs fter STEP III?	of elements will	of elements will be there at end of the se		
A. H <i>,</i> C)	В. Н, Ү	C. ÷, Y	D. 8, Y	E. ÷, &	
			SET – 5			
Direc	tions: Study	the following num	bers carefully and	answer the questic	ons given beside:	
08F	# 4 @ M 2 E Q	% R T & 6 Z * N S \$ 7 A				
Step 1	If a symbol is	immediately preceded	d and followed by a let	ter then write it betwo	een 6 and Z.	
Step 2 betwe	2: If a number is een M and 2.	s immediately precede	d by a symbol and imr	mediately followed by	a letter then write it	
Note:	Step 2 is perfo	rmed after completio	n of step 1.			
21.	With respe way and th	ct to the sequence us form a group. W	after step 2, four /hich of the followi	of the following fiving does not belong	ve are alike in some g to the group?	
A. ERN	Л	B. ZS6	C. 4M8	D. QT7	E. 6*T	
22.	How many obtained at	symbols are to the fter step 1?	e the left of second	vowel from right	end in the sequence	
A. Nor	ne	B. One	C. Two	D. Three	E. More than three	
23.	How many first prime	elements are bet number from right	ween the second end in the sequen	composite numbe ce obtained after s	r from left end and tep 2?	
A. Nor	ne	B. One	C. Two	D. Three	E. More than three	
24. vowe	How many els are dropp	numbers are there ed from the seque	e which is/are imm nce after step 1?	ediately preceded	by a letter if all the	
A. One	2	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

D. Four

E. None of these

SET – 6

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

C. Two

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

C. 6

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

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

Directions: These questions are based on the following arrangement of letters/numbers/ symbols. Study them carefully and answer the questions given beside. 5 H B 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? Α. 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 C. Three E. None of these B. Two D. Four 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? C. Three F. None of these A. Only one B. Two D. Four 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? C. 64 A. 35 B. 4T D. RA E. 8B SET – 8 Directions: Study the following arrangement carefully and answer the questions given beside. 678998797789787696897798976687 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 C. None D. More than four F. None of these B. Four

SET – 7

37.	Which of t right end is	the following num added to the 19th	bers will be obtain number from the	ned when the 18t left end of the seri	h number from the es?
A. 17		B. 15	C. 16	D. 18	E. None of these
38.	How many preceded b	y odd numbers ar by a number, which	re there in the non- n is a perfect cube?	umeric series whi	ch are immediately
A. Six		B. Seven	C. Eight	D. More than eight	E. None of these
39.	If 2 is subt the given n	racted from all od number series, ther	d numbers and 1 i n which number wi	s subtracted from Il be sixteenth fron	all even numbers in n the right end?
A. 7		B. 5	C. 9	D. 8	E. None of these
40.	How many square in t	v such even numbe he above series?	ers are there which	n is immediately fo	llowed by a perfect
A. On	ly one	B. Two	C. Three	D. Five	E. None of these
			SET – 9		
Direc	tions: The fo	ollowing questions a	are based on the th	ree digit numbers g	given below:
972	938 895	863 692 536	i i		
41.	If the sum digit of tha odd then in formed wil	of the first and th at number to 8 and nterchange the firs II be lowest?	e last digits of a nu d if the sum of the at and last digit the	umber is even ther first and the last on which of the follo	n change the middle digits of a number is owing numbers thus
A. 895	5	B. 863	C. 938	D. 692	E. 972
42.	What woul digit of the and then ir	Id be the third hig e given sequence a nterchanging the fi	hest number obtain and adding 1 to ev rst digit with third	ned after subtraction very even digits of digit?	ng 2 from every odd the given sequence
A. 972	2	B. 938	C. 895	D. 692	E. 536
43.	If all the di and then t Then which	igits are arranged i he numbers thus f h of the following r	in decreasing order ormed are arrange numbers will be sec	r from left to right d in increasing ord cond from left end?	within the numbers er from right to left.
A. 972	2	B. 938	C. 895	D. 863	E. 692

44.	If the sum third highe which of th	of the highes est and the th ne following ne	it and the lowes ird lowest numb umbers will we f	st numb per and inally ge	per is divided by the resultant is et?	the difference of the then multiplied by 8,
A. 256	j	B. 284	C. 310		D. 377	E. 436
45.	If all the on numbers the other sectors of the sector of the sector of the sector of the sectors	digits within nus formed wi	the number are II be less than 20	e multij)0?	olied to each o	ther than how many
A. 1		B. 2	C. 3		D. 4	E. 5
			SET -	- 10		
Direc symb	tions: These ols. Study th	questions are em carefully a	based on the fol nd answer the q	llowing a uestions	arrangement of lesside.	etters/numbers/
W 1	R % 4 J	E # 7 M ⁻	Г 2 І 9 В Н	3 A \$	9 F Q 5 D	G 6 U S P
46.	Which of t end?	he following	is the seventh t	to the r	ight of the eigh	teenth from the right
A. A		B. E	C. \$		D. #	E. None of these
47.	What shou	ld come in pla	ce of question n	nark on	the basis of the	above arrangement?
	R4# [VI 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 posit interchang or followed	ions of E and ed then how d by a vowel ?	A are interchan many symbols w	ged and vill be t	similarly the po here each of wh	sitions of R and U are ich is either preceded
A. Nor	าย	B. One	C. Two		D. Three	E. Four
49.	If the order to the right	r of the last fit t of twelfth fro	teen elements is the second	s revers	ed, which of the	following will be fifth
A. U		В.\$	C. 3		D. 6	E. None of these
50.	Four of the and hence	e following five form a group.	e are alike in a co Which one does	ertain w s not be	vay on the basis o long to that grou	of above arrangement p ?
A. R W	/ 4	B. 5 F G	C. 9 Q A		D. 3 B \$	Ε. 7 Ε Τ

CORRECT ANSWERS:

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

Explanations:

1. Series given : T%U4)6&KY^A2\$8LG|3M@FP7!C~H9Q:E1B5

When vowels are skipped:

T%4)6&KY^2\$8LG|3M@FP7!C~H9Q:1B5

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

Hence option C is correct.

2. Series given : T%U4)6&KY^A2\$8LG|3M@F**P7!**C~H9Q:E1B5

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%U4)6&KY^A2\$8LG|3M@FP7!C~H9Q:E1B5

Second prime number from left end is 3.

First composite number from left end is 4.

Product = 12.

Series given : T%U4) 6 & KY^A2\$8LG | 3 M@FP7!C~H9Q:E1B5
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.

- 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.

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".

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: <u>2467</u> 3789 2689 3459 2678

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,

H8J+A9#KY@L4\$N53BG&%X1÷2V>TO

Here, we also have a hint that while solving the alphanumeric sequence STEP II is applied after STEP I and STEP II 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 1^{st} symbol will be arranged at the left end, the 2^{nd} symbol will be arranged at the right end, 3^{rd} 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+A9#K@L\$N3B&8541%X÷2>TOGJVY

It is also given that these symbols will be arranged such that 1^{st} symbol will be arranged at the left end, the 2^{nd} symbol will be arranged at the right end, 3^{rd} 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:

 \div \$ + 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.

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:

0 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 *

0 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'.

0 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.

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:

0 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 '8653' is '6'.

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

Required Sum = 6 + 3 **= 9**

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'.

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.

31.	If we remove the numbers, vowels and the symbol '&' from the above arrangement, the arrangement will be like:
	Η β % Τ L \$ F R M @ # B D C
	Clearly, 'R' is the eighth element from the left end.
	Option D is hence the correct answer.
00	
32.	The 13 th element from the left end = F
	The resultant direction = 8^{th} to the left - 5^{th} to the right = 3^{rd} to the left = \$
	Option D is hence the correct answer.
33	5 H B 3 % T I I 4 \$ F 6 F 1 R M @ A # B D 2 8 II & C
00.	
	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:
	·····
	Here, we can see that there are seven such digits in the given series each of which when subtracted

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.

37. The given series:

67899879778<mark>9</mark>787696**8**97798976687

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:

678**9**98**7**9778**9**78**7**6968**9**7798**9**7668**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:

678998797789787696897798976687

Now, the series after applying above condition:

5 5 7 7 7 7 5 7 5 5 7 7 5 7 <mark>5</mark> 5 7 5 7 7 5 5 7 7 7 5 5 7 7 5

The sixteenth number from the right end = 5

Hence, the correct answer is option B.

40. The given series:

67**8**9987977**8**9787**6**96**8**9779**8**976687

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

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.
	∴ 7 th to the right of the 18th from the right end means (18 – 7) = 11 th 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 <u>%</u> 4 J A <u>#</u> 7 M T 2 I 9 B H 3 E <u>\$</u> 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.
	∴ 5 th to the right of 12 th from the left end means (5 + 12) = 17 th 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.