Sequential Output Tracing Quiz Questions for SBI PO Pre, IBPS PO Pre IBPS Clerk Mains & SBI Clerk Mains Exams.

Set No 24

Directions: A word and number arrangement machine, when given an input line of words and numbers, rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input: fire 76 for 53 fauna 14 favour 27 freedom 36
Step1: 78 fauna fire for 53 14 favour 27 freedom 36
Step2: 51 favour 78 fauna fire for 14 27 freedom 36
Step3: 38 freedom 51 favour 78 fauna fire for 14 27
Step4: 25 fire 38 freedom 51 favour 78 fauna for 14
Step5: 16 for 25 fire 38 freedom 51 favour 78 fauna

Find the different steps of output using the above mentioned logic for the following input.

Input: prison 24 pirates 61 proxy 70 prone 53 prejudice 17

Questions :

1. Which of the following steps is the step 3 of the given input?

A. 51 prone prison 59 pirates 72 prejudice 24 proxy 17
B. 59 pirates 72 prejudice prison 24 proxy prone 53 17
C. 51 prison 59 pirates 72 prejudice 24 proxy prone 17
D. prison 59 pirates 72 prejudice 24 proxy 51 prone 17
E. None of these

2. Which of the following is third to the right of the one which is third from the left end in step1?

A. pirates   B. 53   C. prone   D. 61   E. proxy

3. Which of the following comes exactly between 'prone' and 'pirates' in step 4?

A. prison   B. 51   C. 53   D. All of these   E. None of these

4. In which of the following steps 'prison 59 pirates' is seen in the same sequence for the first time?

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

5. What is the difference between the sum of all the prime numbers and the sum of all the even numbers in step 2?
A. 22   B. 29   C. 33   D. 28   E. 45

Correct Answers:

1	2	3	4	5
C	D	A	B	C

Common Explanations:

The given output is obtained by following the below mentioned logic:

Change in Word: Words are selected on the basis of decreasing order of number of vowels within a word i.e. The word with highest number of vowels is considered first, if there are more than one word with same number of vowels then preference is given to the word that comes first as per dictionary order. Words are placed at the left end.

Change in Number: Numbers are selected on the basis of descending order. If the number is an **even number** then change it by adding 2 to it and shift to the extreme left end. If the number is an **odd number** then change it by subtracting 2 from it and shift it to the extreme left end.

Note: Changes in word and number take place simultaneously at each step.

Reference:
Input :fire 76 for 53 fauna 14 favour 27 freedom 36

Step1:78 fauna fire for 53 14 favour 27 freedom 36

S.No.	Word	No. of vowels	Order of Preference	Number	Changed Number	Order of Preference
1	fire	2	4th	76 - Even	78	2nd
2	for	1	5th	53 - Odd	51	1st
3	fauna	3	1st	14 - Even	16	3rd
4	favour	3	2nd	27 - Odd	25	5th
5	freedom	3	3rd	36 - Even	38	4th

Inference:

On the basis of given logic following table is prepared which shows the changes in numbers and words and their order of preference in which they are to be rearranged.

S.No.	Word	No. of vowels	Order of Preference	Number	Changed Number	Order of Preference
1	prison	2	3rd	24 - Even	26	4th
2	pirates	3	2nd	61 - Odd	59	2nd
3	proxy	1	5th	70 - Even	72	1st
4	prone	2	4th	53 - Odd	51	3rd
5	prejudice	4	1st	17 - Odd	15	5th

Input: prison 24 pirates 61 proxy 70 prone 53 prejudice 17

Step1:72 prejudice prison 24 pirates 61 proxy prone 53 17

Reference:
Step1:78 fauna fire for 53 14 favour 27 freedom 36
Step2:51 favour 78 fauna fire for 14 27 freedom 36

Inference:
Step1:72 prejudice prison 24 pirates 61 proxy prone 53 17
Step2:59 pirates 72 prejudice prison 24 proxy prone 53 17

Reference:
Step2:51 favour 78 fauna fire for 14 27 freedom 36
Step3:38 freedom 51 favour 78 fauna fire for 14 27

Inference:

Step2:59 pirates 72 prejudice prison 24 proxy prone 53 17
Step3:51 prison 59 pirates 72 prejudice 24 proxy prone 17

Reference:
Step3:38 freedom 51 favour 78 fauna fire for 14 27
Step4:25 fire 38 freedom 51 favour 78 fauna for 14

Inference:
Step3:51 prison 59 pirates 72 prejudice 24 proxy prone 17
Step4:26 prone 51 prison 59 pirates 72 prejudice proxy 17

Reference:

Step4:25 fire 38 freedom 51 favour 78 fauna for 14
Step5:16 for 25 fire 38 freedom 51 favour 78 fauna

Inference:

Step4:26 prone 51 prison 29 pirates 72 prejudice proxy 17
Step5:15 proxy 26 prone 51 prison 59 pirates 72 prejudice

Final Output:

Input: prison 24 pirates 61 proxy 70 prone 53 prejudice 17
Step1:72 prejudice prison 24 pirates 61 proxy prone 53 17
Step2:59 pirates 72 prejudice prison 24 proxy prone 53 17
Step3:51 prison 59 pirates 72 prejudice 24 proxy prone 17
Step4:26 prone 51 prison 59 pirates 72 prejudice proxy 17
Step5:15 proxy 26 prone 51 prison 59 pirates 72 prejudice

Answers :

1. The step 3 of the given input is - 51 prison 59 pirates 72 prejudice 24 proxy prone 17

Option C, is hence the correct answer.

2. From the following explanation it is clear that '61' is third to the right of third from the left end in step 1.

Option D, is hence the correct answer.

3. From the following explanation it is clear that 'prison' comes exactly between prone and pirates in step 4.
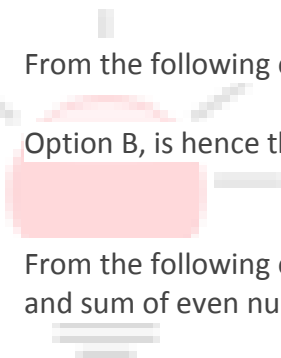
Option A, is hence the correct answer.

4. From the following explanation it is clear that 'prison 59 pirates' is seen in step 3 for the first time .

Option B, is hence the correct answer.

5. From the following explanation it is clear that in step 2, the difference of the sum of prime numbers and sum of even numbers is 33.

Option C, is hence the correct answer.