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

Set No 29

Directions: An alphanumeric machine accepts letters as input and delivers output in form of numbers through different steps. Each step is obtained by applying an operation different from the previous step. Each step gives output taking input from the previous step. Below mentioned is an illustration of the same.

Input: spread joy laughter by sharing smile with masses

Step1: 9 2 11 5 6 4 7 9

Step2: 99 10 42 36

Step3: 57 26

Step4: 5

Step4 is the final output.

On the basis of above illustration find the output and different steps for the following input.

Input: being good to everyone sometimes invite sad trouble

Questions :

1. If '3' is added to one of the values of step 3 then what would be its consequence on the final output?

A. Final output will remain indifferent   B. Final output will be decreased by 2
C. Final output will be decreased by 1   D. Final output will be increased by 2
E. Final output will be increased by 1

2. What is the square of the sum of the numbers of step 3?

A. 729   B. 676   C. 784   D. 529   E. None of these

3. If in the given input 'sad' is replaced by "so" then which of the following values of step 2 will change?

A. 20   B. 16   C. 77   D. 54   E. None of the values will change

4. Four of the following are similar in a certain way and thus form a group. Which of the following does not belong to the group?

A. 22   B. 1   C. 55   D. 3   E. 10

5. **What is the difference between the sum of all the even numbers of step 2 and the sum of all the odd numbers of step 3?**

A. 77   B. 85   C. 67   D. 46   E. 38

Correct Answers:

1	2	3	4	5
E	A	B	D	C

Common Explanations:

Each step is obtained by applying an **operation different from the previous step**.

Reference:
Input: spread joy laughter by sharing smile with masses

Step1: 9 2 11 5 6 4 7 9

Inference:
Here the operation performed is : **Addition.**

Here, the conversion of letters to numbers is done by performing addition of certain numbers to the number of letters of each word. The numbers are to be written in the same order in which their respective words are written in the input. If the number of letters are even then add 3 to the number of letters, if the number of letters are odd then less 1 from the number of letters.

Following the same logic, we can easily find the values of step 1.

- For 'good' number of letters are 4 so its respective number becomes 4 + 3 = 7.
- For 'being', number of letters are 5 so its respective number becomes 5 – 1 = 4.

Input: being good to everyone sometimes invite sad trouble

Step1: 4 7 5 11 8 9 2 6

Reference:
Step1: 9 2 11 5 6 4 7 9

Step2: 99 10 42 36

Inference:
Here the mathematical operation performed is : **Multiplication.**

- To obtain the first value of step 2, product of first and third numbers (from left end) is taken.
- To get the second value of step 2, product of second and fourth numbers is taken.
- To acquire the third value of step 2, product of fifth and seventh numbers is taken.
- To identify the fourth value of step 2, product of sixth and eighth numbers is taken.

Following the same logic, we can easily find the values of step 2.

Step1: 4 7 5 11 8 9 2 6

Step2: 20 77 16 54

Reference:
Step2: 99 10 42 36

Step3: 57 26

Inference:
Here the operation performed is : **Subtraction.**

First value of step 3 is obtained by taking the difference of first and third numbers from left end.

Second value of step 3 is obtained by taking the difference of second and fourth numbers from left end.

Following the same logic, we can easily find the values of step 3.

Step2: 20 77 16 54

Step3: 4 23

Reference:
Step3: 57 26

Step4: 5

Inference:
Here the operation performed is : **Average.**

Average of all the digits of step 3 is taken to obtain the value of step 4.

Following the same logic, the value of step 4 is (4+2+3)/3 = 3

Step3: 4 23

Step4: 3

Answers :

1. From the following explanation it is clear that if 3 is added to one of the digits of step 3, the final output will become 4 i.e. will be increased by 1.

Hence, option E is the correct answer.

2. From the following explanation it is clear that sum of the numbers of step 3 is 27 (23+4), square of which is 729.

Hence, option A is the correct answer.

3. From the following explanation it is clear that if 'sad' is replaced by "so" then second last value(From left end) of step 1 will become 5 and second last value(From left end) of step 2 will become 40 by replacing 16.

Hence, option B is the correct answer.

4. From the following explanation it is clear that '3' is the only number that belongs to one of the steps of the given output, whereas all other numbers are not from the given steps of output.

Hence, option D is the correct answer.

5. From the following explanation it is clear that the sum of even numbers in step 2 is 90 (20+16+54) and sum of odd numbers in step 3 is 23.

Required difference = 90 – 23 => 67.

Hence, option C is the correct answer.