

Q1. Which keyword is used to create a function? Create a function to return a list of odd numbers in the range of 1 to 25.

Ans: - The def keyword is used to create a function,

Example: **def function (parameter):**

List of odd numbers in the range of 1 to 25,

```
Code :-      start, end = 1,25
              for num in range(start,end+1):
                  if num%2 != 0:
                      print (num,end=" ")
```

Q2. Why *args and **kwargs is used in some functions? Create a function each for *args and **kwargs to demonstrate their use.

Ans:- *args and **kwargs when we are unsure about the number of arguments to pass in the Functions.

```
Code: -      def example (*args):

                return args
```

```
Code:-      def example1 (**kwargs):

                return kwargs
```

Examples are in .ipynb File

Q3. What is an iterator in python? Name the method used to initialise the iterator object and the method used for iteration. Use these methods to print the first five elements of the given list [2, 4, 6, 8, 10, 12, 14, 16, 18, 20].

Ans: - iterator is an object that contains a countable number of values.

Python iterator implements the iterator protocol, which includes two special methods: `__iter__()` and `__next__()`.

The `__iter__()` method – returns an iterator object. This is required in order to use containers and iterators with the for and in statements.

The `__next__()` method – This function returns the sequence's next item. If no more items are found, throw the StopIteration exception.

The iterators in python that is used iterator over iterator object like lists, tuples, dictionary, and sets.

Examples are in .ipynb File

Q4. What is a generator function in python? Why yield keyword is used? Give an example of a generator function.

Ans :- Python Generator functions allow you to declare a function that behaves like an iterator, allowing programmers to make an iterator in a fast, easy, and clean way.

The yield keyword pauses generator function execution and the value of the expression following the yield keyword is returned to the generator's caller.

Q5. Create a generator function for prime numbers less than 1000. Use the next() method to print the first 20 prime numbers.

Ans:-

The answer of that above question in python file