2)A)Plot graph for Frequency Distribution of words

In [26]:

```
pip install nltk
```

```
Requirement already satisfied: nltk in c:\users\acer\anaconda3\lib\site-packages (3.7)Note: you may need to restart the ker
nel to use updated packages.

Requirement already satisfied: tqdm in c:\users\acer\anaconda3\lib\site-packages (from nltk) (4.64.1)
Requirement already satisfied: regex>=2021.8.3 in c:\users\acer\anaconda3\lib\site-packages (from nltk) (2022.7.9)
Requirement already satisfied: click in c:\users\acer\anaconda3\lib\site-packages (from nltk) (8.0.4)
Requirement already satisfied: joblib in c:\users\acer\anaconda3\lib\site-packages (from nltk) (1.1.0)
Requirement already satisfied: colorama in c:\users\acer\anaconda3\lib\site-packages (from click->nltk) (0.4.5)
```

In [27]:

```
import nltk
nltk.download('punkt')
```

```
[nltk_data] Downloading package punkt to
[nltk_data]     C:\Users\Acer\AppData\Roaming\nltk_data...
[nltk_data]   Package punkt is already up-to-date!
```

Out[27]:

```
True
```

In [28]:

```
from nltk.probability import FreqDist
```

In [29]:

```
text1="India will play against Australia this summner . It will be an exciting series"
```

In [30]:

```
print(text1)
```

```
India will play against Australia this summner . It will be an exciting series
```

In [31]:

```
word_tokens=nltk.word_tokenize(text1)
```

In [32]:

```
print(word_tokens)
```

```
['India', 'will', 'play', 'against', 'Australia', 'this', 'summner', '.', 'It', 'will', 'be', 'an', 'exciting', 'series']
```

In [33]:

```
len(word_tokens)
```

Out[33]:

```
14
```

In [34]:

```
text1=FreqDist(word_tokens)
```

In [35]:

```
print(text1)
```

```
<FreqDist with 13 samples and 14 outcomes>
```

In [36]:

```
text1.most_common(10)
```

Out[36]:

```
[('will', 2),
 ('India', 1),
 ('play', 1),
 ('against', 1),
 ('Australia', 1),
 ('this', 1),
 ('summner', 1),
 ('.', 1),
 ('It', 1),
 ('be', 1)]
```

In [37]:

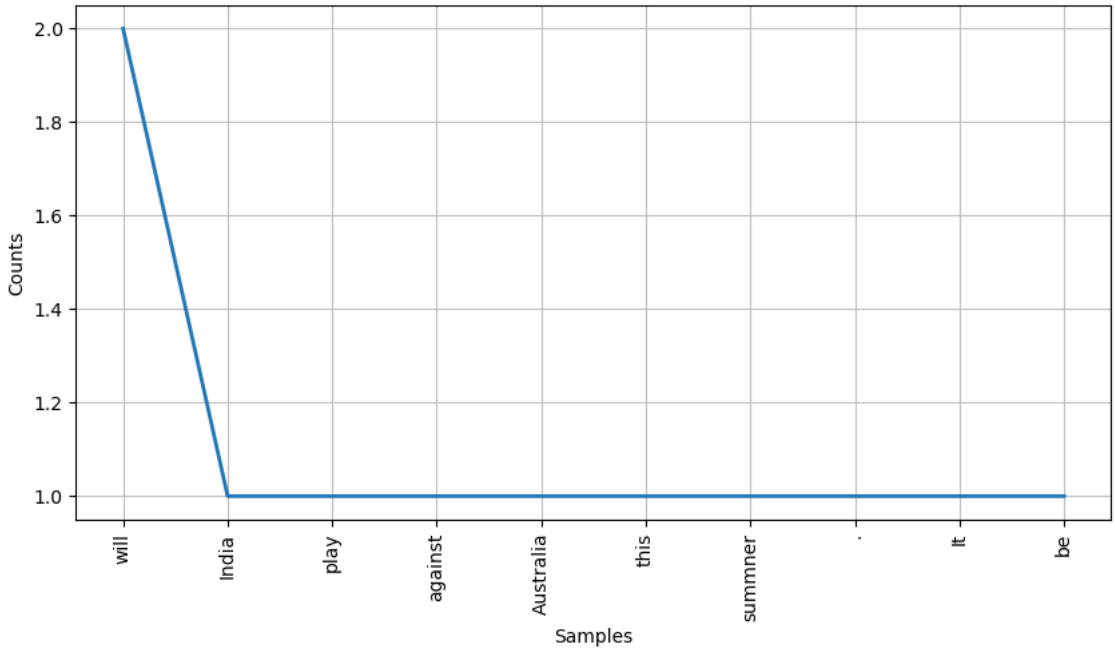
```
text1.freq("India")
```

Out[37]:

```
0.07142857142857142
```

In [38]:

```
import matplotlib.pyplot as plt
fig, ax=plt.subplots(figsize=(10,5))
text1.plot(10)
```



Out[38]:

```
<AxesSubplot:xlabel='Samples', ylabel='Counts'>
```

2)b)Create a word cloud for stop words

In [39]:

```
pip install wordcloud
```

```
Requirement already satisfied: wordcloud in c:\users\acer\anaconda3\lib\site-packages (1.8.2.2)
Requirement already satisfied: pillow in c:\users\acer\anaconda3\lib\site-packages (from wordcloud) (9.2.0)
Requirement already satisfied: matplotlib in c:\users\acer\anaconda3\lib\site-packages (from wordcloud) (3.5.2)
Requirement already satisfied: numpy>=1.6.1 in c:\users\acer\anaconda3\lib\site-packages (from wordcloud) (1.21.5)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\acer\anaconda3\lib\site-packages (from matplotlib->wordcloud)
(4.25.0)
Requirement already satisfied: packaging>=20.0 in c:\users\acer\anaconda3\lib\site-packages (from matplotlib->wordcloud) (2
1.3)
Requirement already satisfied: pyparsing>=2.2.1 in c:\users\acer\anaconda3\lib\site-packages (from matplotlib->wordcloud)
(3.0.9)
Requirement already satisfied: cycler>=0.10 in c:\users\acer\anaconda3\lib\site-packages (from matplotlib->wordcloud) (0.1
1.0)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\acer\anaconda3\lib\site-packages (from matplotlib->wordclou
d) (2.8.2)
Requirement already satisfied: kiwisolver>=1.0.1 in c:\users\acer\anaconda3\lib\site-packages (from matplotlib->wordcloud)
(1.4.2)
Requirement already satisfied: six>=1.5 in c:\users\acer\anaconda3\lib\site-packages (from python-dateutil>=2.7->matplotlib
->wordcloud) (1.16.0)
Note: you may need to restart the kernel to use updated packages.
```

In [40]:

```
from wordcloud import WordCloud, STOPWORDS
```

In [41]:

```
pip install wikipedia
```

```
Requirement already satisfied: wikipedia in c:\users\acer\anaconda3\lib\site-packages (1.4.0)
Requirement already satisfied: beautifulsoup4 in c:\users\acer\anaconda3\lib\site-packages (from wikipedia) (4.11.1)
Requirement already satisfied: requests<3.0.0,>=2.0.0 in c:\users\acer\anaconda3\lib\site-packages (from wikipedia) (2.28.
1)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\acer\anaconda3\lib\site-packages (from requests<3.0.0,>=2.0.0
->wikipedia) (2022.9.14)
Requirement already satisfied: idna<4,>=2.5 in c:\users\acer\anaconda3\lib\site-packages (from requests<3.0.0,>=2.0.0->wiki
pedia) (3.3)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\acer\anaconda3\lib\site-packages (from requests<3.0.0,>=2.
0.0->wikipedia) (1.26.11)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\users\acer\anaconda3\lib\site-packages (from requests<3.0.0,>
=2.0.0->wikipedia) (2.0.4)
Requirement already satisfied: soupsieve>1.2 in c:\users\acer\anaconda3\lib\site-packages (from beautifulsoup4->wikipedia)
(2.3.1)
Note: you may need to restart the kernel to use updated packages.
```

In [42]:

```
import wikipedia
```

In [43]:

```
pip install PIL
```

```
Note: you may need to restart the kernel to use updated packages.

ERROR: Could not find a version that satisfies the requirement PIL (from versions: none)
ERROR: No matching distribution found for PIL
```

In [44]:

```
from PIL import Image
```

In [45]:

```
stop_w=set(STOPWORDS)
```

In [46]:

```
info=("python is handled by Parmeshwar Sir")
```

In [47]:

```
print(info)
```

```
python is handled by Parmeshwar Sir
```

In [48]:

```
word_cloud=WordCloud(stopwords=stop_w).generate(info)
```

In [49]:

```
img=word_cloud.to_image()
```

In [50]:

```
img.show()
```

4)a)Correct the words by adding/removing missing letters using spell correction

In [ ]:

```

```