**Q2(2):**

**The list for the top 10 most discriminative word features is as under. It is very interesting to note that there is TIE in some word features so I am giving you the values of difference as well with the exact rank. The compiler chose random among the tie word features.**

|  |  |  |
| --- | --- | --- |
| **RANK** | **WORD FEATURE** | **VALUES** |
| **1** | **GRAPHICS** | **4.42487744454137** |
| **2** | **ATHEISM** | **3.97443270621815** |
| **3** | **RELIGION** | **3.92791269058326** |
| **4** | **EVIDENCE** | **3.85380471842954** |
| **4** | **MORAL** | **3.85380471842954** |
| **4** | **KEITH** | **3.85380471842954** |
| **5** | **ATHEISTS** | **3.82782923202628** |
| **6** | **GOD** | **3.78297866586093** |
| **7** | **BIBLE** | **3.74559113378931** |
| **8** | **RELIGIOUS** | **3.71660359691605** |
| **8** | **CHRISTIAN** | **3.71660359691605** |
| **9** | **ISLAM** | **3.68675063376637** |
| **10** | **ARGUMENT** | **3.62423027678504** |
| **10** | **MORALITY** | **3.62423027678504** |
| **11** | **LIVESY** | **3.59144045396205** |
| **11** | **SOLNTZE** | **3.59144045396205** |
| **11** | **WPD** | **3.59144045396205** |
| **12** | **BELIEF** | **3.44833961032137** |
| **13** | **BENEDIKT** | **3.40911889716809** |
| **14** | **SCHNEIDER** | **3.36829690264784** |

**All of the word features selected above by NB classifier seems to be good word features because the words like God, religion, Islam, Christian etc refereed to label 1 which is alt.atheism.SO, these words are giving us concrete classification.**