**INPUT : A B B C D B C C D A A B B E E E B E A B ( 160 Bits)**

**Frequency Count:**

A = 4 Times B = 7 Times C = 3 Times D = 2 Times E = 4 Times

**Sorting :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2 | 3 | 4 | 4 | 7 |
| D | C | E | A | B |

SM-8

SM-5

SM-4

SM-3

SM-6

SM-7

SM-2

SM-0

SM-1

**D**

**C**

**B**

**E**

**A**

**0**

**1**

**0**

**1**

**0**

**1**

**0**

**1**

**BIT - MAPPING:**

**CODE TABLE: A B B C D B C C D A A B B E E E B E A B ( 160 Bits)**

|  |  |
| --- | --- |
| A | 01 |
| B | 11 |
| C | 101 |
| D | 100 |
| E | 00 |

**01 11 11 101 100 11 101 101 100 01 01 11 11 00 00 00 11 00 01 11 ( 45 BITS)**

**Compressor Data Code Word Canonical Form :**

**{2,01}, {2,11}, {2,11}, {3,101}, {3,100}, {2,11}, {3,101}, {3,101}, {3,100}, {2,01}, {2,01}, {2,11}, {2,11}, {2,00}, {2,00}, {2,00}, {2,11}, {2,00}, {2,01}, {2,11}**

**-- ( 90 BITS)**