

# EXP 9

Title :

## Huffman coding

```
clc;
clear all;
close all;
code_length=0;
x=input('Enter number of symbols: ');
for m=1:x
symbols(m)=input('Enter the symbol number: ');
p(m)=input('Enter the probability: ');
end
Hx=0
for m=1:x
[dict,avglen]=huffmandict(symbols,p)
hcode=huffmanenco(m,dict)
dsig = huffmandeco(hcode,dict)
code_length=length(hcode)
Hx=Hx+(p(m)*(-log(p(m)))/(log(2)));
end
display(Hx);
Efficiency=(Hx/avglen)*100
```

## Command Window

Enter number of symbols:

5

Enter the symbol number:

1

Enter the probability:

0.15

Enter the symbol number:

2

Enter the probability:

0.11

Enter the symbol number:

3

Enter the probability:

0.19

Enter the symbol number:

4

Enter the probability:

0.40

Enter the symbol number:

5

Enter the probability:

0.15