

Test case 1: “” nothing added

```
Select an option:  
A - Part A  
B - Part B  
C - Part C  
0 - Exit  
Enter your choice: c  
You selected Part C.  
Enter text to encode and decode:  
No input provided. Nothing to encode/decode.
```

Test case 2: “A”

```
Select an option:  
A - Part A  
B - Part B  
C - Part C  
0 - Exit  
Enter your choice: C  
You selected Part C.  
Enter text to encode and decode: A  
Encoded: 0  
Decoded: A  
Original and Decoded are equal: True
```

Test case 3: “AAAAAAAAAAAAAA”

```
Enter your choice: C  
You selected Part C.  
Enter text to encode and decode: AAAAAAAAAAAAAA  
Encoded: 00000000000000  
Decoded: AAAAAAAAAAAAAA  
Original and Decoded are equal: True
```

Test case 4: “BBBBBBBBBBBBBA”

```
You selected Part C.  
Enter text to encode and decode: BBBB BBBB BBBB BA  
Encoded: 111111111110  
Decoded: BBBB BBBB BBBB BA  
Original and Decoded are equal: True
```

Test case 5: "ABABABABABABABAB"

```
You selected Part C.  
Enter text to encode and decode: ABABABABABABABAB  
Encoded: 0101010101010101  
Decoded: ABABABABABABABAB  
Original and Decoded are equal: True
```

Test case 6: "12345"

```
You selected Part C.  
Enter text to encode and decode: 12345  
Encoded: 001111011001  
Decoded: 12345  
Original and Decoded are equal: True
```

Test case 7: "321as\$\$##@"

```
You selected Part C.  
Enter text to encode and decode: 321as$$##@  
Encoded: 01101011100001111101101010001  
Decoded: 321as$$##@  
Original and Decoded are equal: True
```

Test case 8: "!@#\$%"

```
Enter text to encode and decode: !@#$%  
Encoded: 00011110110  
Decoded: !@#$%  
Original and Decoded are equal: True
```