Q1 Commands

5 Points

List the commands used in the game to reach the first ciphertext.

```
climb
read
enter
read
```

Q2 Cryptosystem

5 Points

What cryptosystem was used in this level?

```
Substitution Cipher
```

Q3 Analysis

25 Points

What tools and observations were used to figure our the cryptosystem? (Explain in less than 100 words)

```
Frequency Analysis is used.
We made the frequency analysis table for all the alphabets, then using this table: 'c' had the
highest occurrence frequency, therefore substituted it with 'e'. Similarly, 'f' with the second-
highest frequency of occurrence was substituted with 't'.
Since trigram with highest recurring frequency was 'fic' : as we have replaced 'c' -> 'e' and
'f'-> 't'. The word meant by trigram was: 'the', therefore 'i' would be substituted by 'h'. The
other substitutions were similarly made. The trick was that the blank spaces in the cipher
had been jumbled, but punctuation marks were not jumbled.
```

Q4 Mapping

10 Points

What is the plaintext space and ciphertext space?
What is the mapping between the elements of plaintext space and the elements of ciphertext space? (Explain in less than 100 words)

```
Plaintext space- text in understandable language that can be read easily.
Ciphertext space- encrypted text to read which some tools are required to convert it to
plaintext.

Mapping-

ciphertext-space <ABCDEFGHIJKLMNOPQRSTUVWXYZ9876543210> maps to plaintext-
space <GKEMFTOAHPSWRBICNYVJLUXQDZ3210987654> (element-by-element)

Plaintext-
This is the first chamber of the caves. As you can see, there is nothing of interest in the
chamber. Some of the later chambers will be more interesting than this one! The code used
for this message is a simple substitution cipher in which digits have been shifted by 6
places. The password is iRqy3U5qdgt without the quotes. This is the F
```

Q5 Password

5 Points

What is the final command used to clear this level?

```
iRqy3U5qdgt
```

Q6 Codes

0 Points

Upload any code that you have used to solve this level

📄 No files uploaded

Q7 Team Name

0 Points

```
Cryptophilic
```