DECODE (*compressed_data,* **var** *i,* **var** *uncompressed_data,* **var** *j,* **var** *claimed)*

```
1  character ← compressed_data[i]
2  uncompressed_data[j] ← character
3  claimed[j] ← true
4  while j < length(uncompressed_data) and claimed[j] do
5      j ← j + 1
6  i ← i + 1
7  if compressed_data[i − 1] = 00000000₂ and compressed_data[i] = 00000000₂ then
8      i ← i + 1
9  if i < length(compressed_data) then
10     if compressed_data[i] = 00000000₂ and compressed_data[i + 1] ≠ 00000000₂ then
11         count ← 0
12         k ← j
13         while count < 2040 and k < length(uncompressed_data) do
14             if not claimed[k] then
15                 count ← count + 1
16             newly_claimed[k] ← false
17             k ← k + 1
18         i ← i + 1
19         encoding_length ← compressed_data[i]
20         j₂ ← j
21         for k = 0 to encoding_length − 1 do
22             i ← i + 1
23             encoded_byte ← compressed_data[i]
24             for l = 0 to 7 do
25                 if 2^l bit of encoded_byte set to binary 1 then
26                     uncompressed_data[j₂] ← character
27                     newly_claimed[j₂] ← true
28                 j₂ ← j₂ + 1
29                 while j₂ < length(uncompressed_data) and claimed[ j₂] do
30                     j₂ ← j₂ + 1
31         i ← i + 1
32         count ← 0
33         k ← j
34         while count < 2040 and k < length(uncompressed_data) do
35             if claimed[k] then
36                 count ← count + 1
37             claimed[k] ← claimed[k] ∨ newly_claimed[k]
38             k ← k + 1
```