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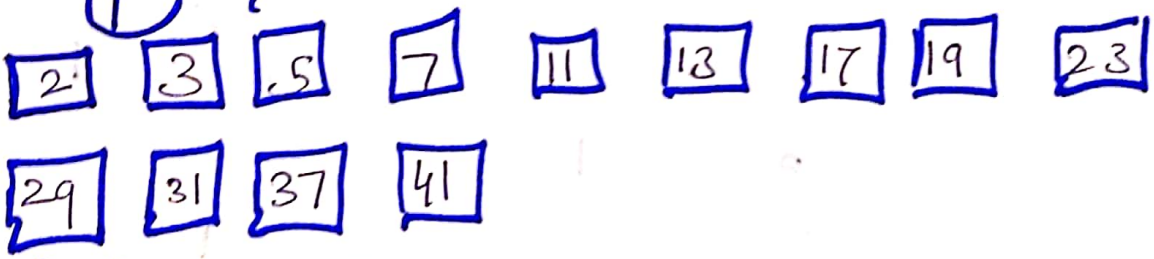
Roll No: 20p-0101
Section: BCS-6C
Subject: Graph Theory
Respected Sir: Dr. Usman Abbasi.

Assignment : 03

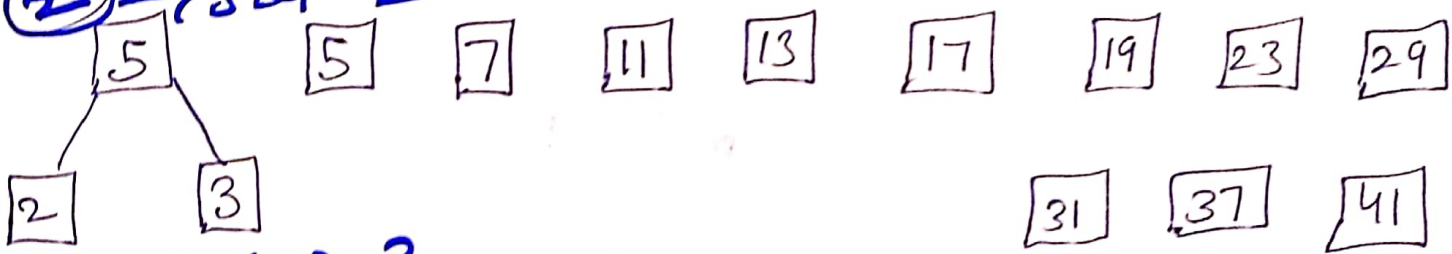
Question-1 ⇒ A communication b/w ..... ?

Answer:

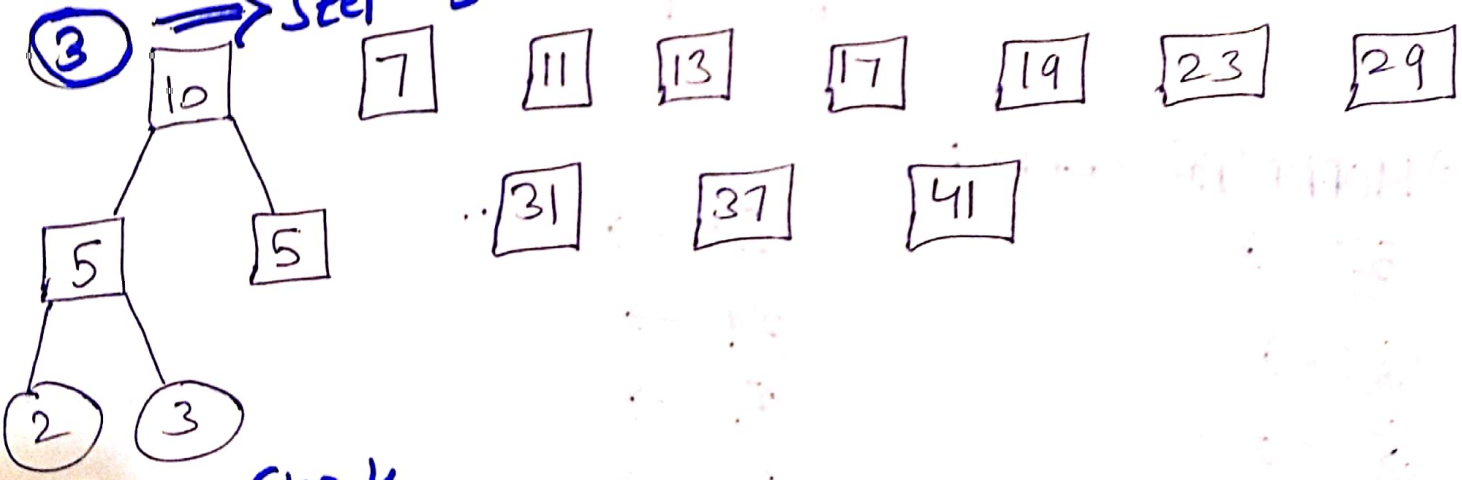
① ⇒ Step-1



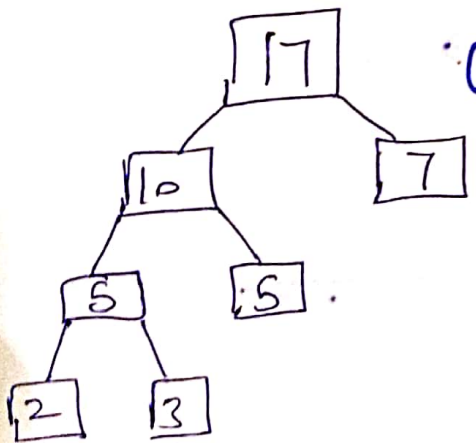
② ⇒ Step-2



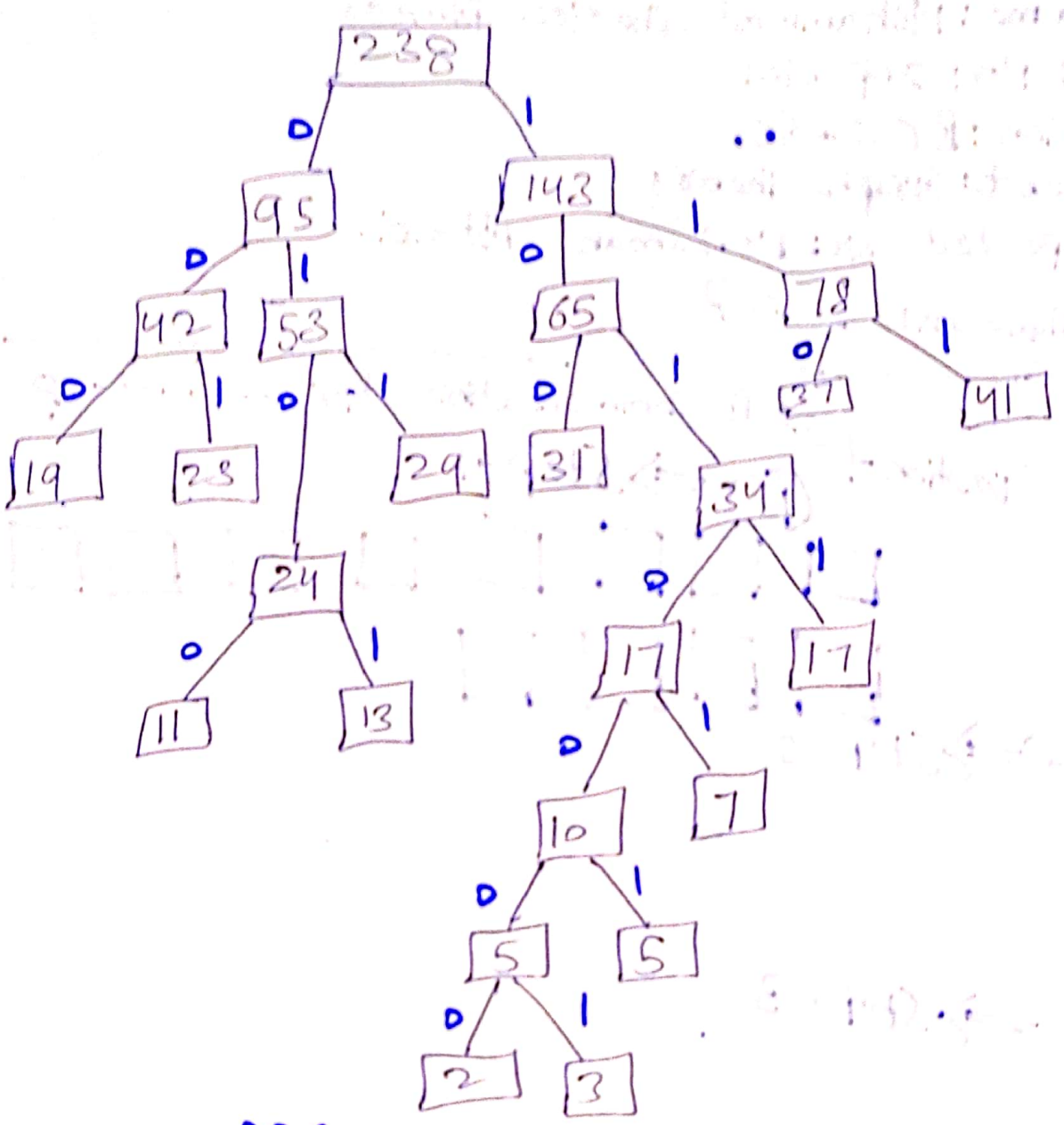
③ ⇒ Step-3



④ ⇒ Step-4



∴ In the Next steps, ill show the full tree after following the same steps.



⇒ HUFFMAN CODES:

(2) → 101001100

(3) → 10101011

(5) → 101011

(7) → 10100

(11) → 0100

(13) → 0101

(19) → 000

(23) → 001

(29) → 011

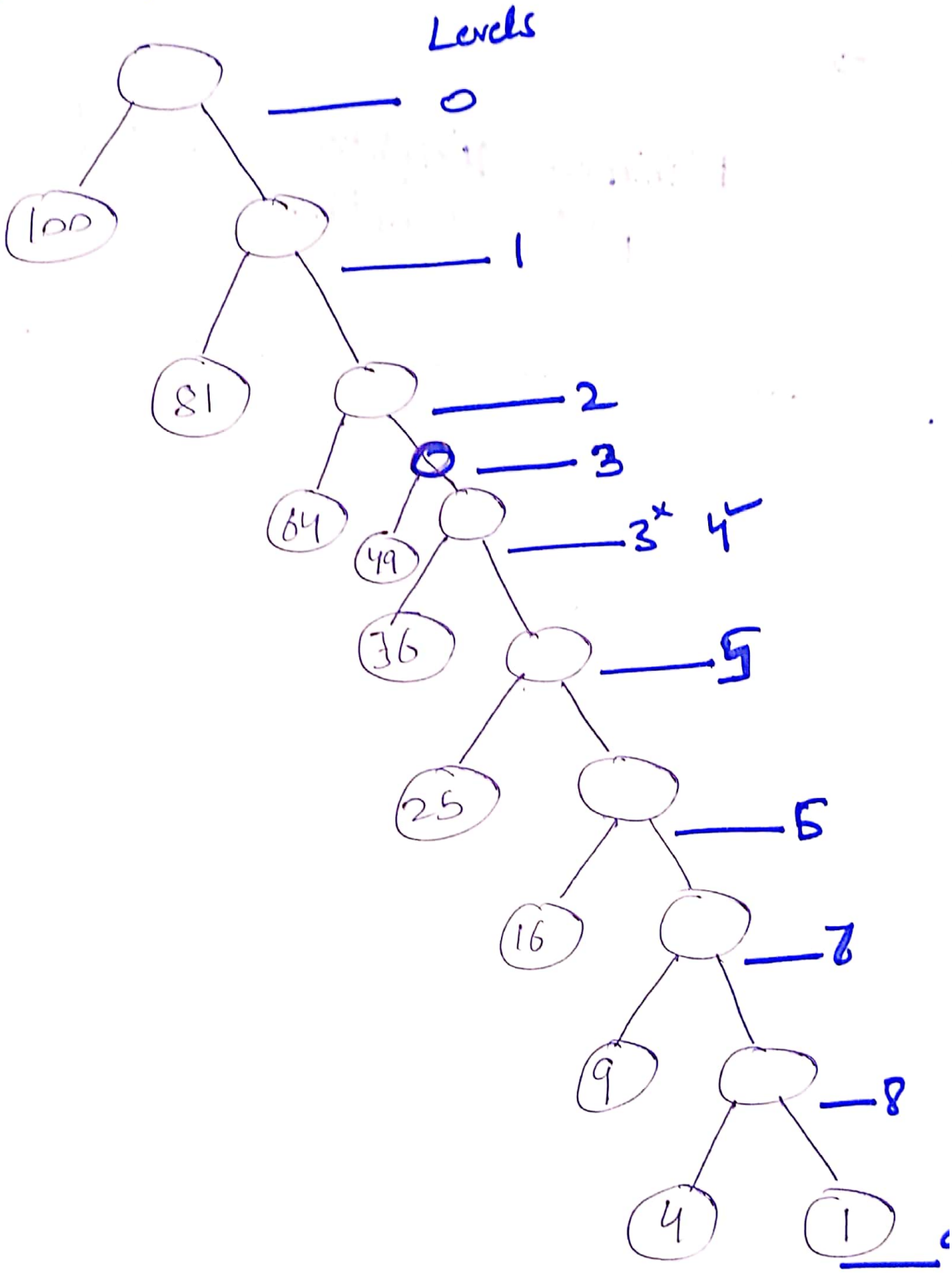
(31) → 100

(37) → 110

(41) → 111

Question: 02 :- Construct a min weight path..... ? (2)

1, 4, 9, 16, 25, 36, 49, 64, 81, 100



$\Rightarrow (1\times100)+(2\times81)+(3\times64)+(4\times49)+(5\times36)+$

$\Rightarrow (6\times25)+(7\times16)+(8\times9)+(9(1+4))$

$\Rightarrow 100+162+192+196+180+150+112+72+45$

Minimum Weighted path length = 1209