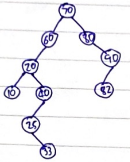
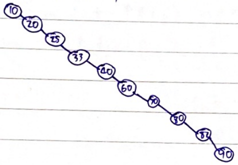
SUBJECT: DSA - Week 6 [illegible] [illegible]   NO: 66070014   DATE: 0๙ , 01 , 202๔

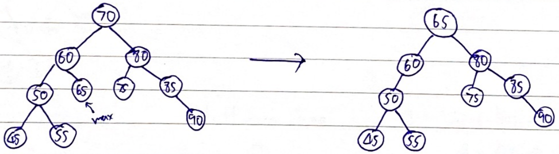
BST - Q1   70, 80, 60, 90, 20, 40, 25, 82, 10, 33



BST - Q_2 10, 20, 25, 33, 40, 60, 70, 80, 82, 90

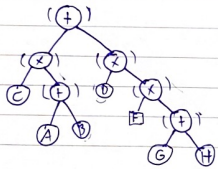


BST - Q_3 Delete 70 from BST



SUBJECT: DSA - Week 6 ภาคต์ ศุภสิ NO: 66070014 DATE: 04 / 01 / 2024

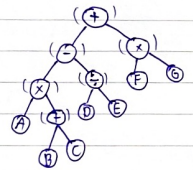
OBT - Q1 find infix, prefix, posfix
↓ inorder ↓ preorder ↓ postorder



Infix: ((C x (A+B)) + (D x (F x (G+H))))
prefix: +xC+AB×D×F+GH
posfix: CAB+x DFGH+××+

OBT-Q2 Prefix expression : +-*A+BC/DE*FG
find Expression Tree, Infix, postfix

Expression Tree

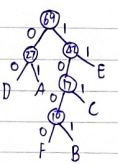


Infix: (((A x (B+C)) - (D÷E)) + (F x G))
Posfix: ABC+x DE÷- FG×+

OBT - 03

อักขระ	ความถี่
A	15
B	6
C	7
D	12
E	25
F	4
	↓
	sum = 69

Huffman Tree



3.1 หา Huffman code ของแต่ละอักขระ
A = 01 → 2 Bit
B = 1001 → 4 Bit
C = 101 → 3 Bit
D = 00 → 2 Bit
E = 11 → 2 Bit
F = 1000 → 4 Bit

3.2 เข้ารหัสด้วย ASCII = 69 x 8 = 552 Bit

3.3 เข้ารหัสด้วย Huffman code
= A(2×15) + B(4×6) + C(3×7) + D(2×12) + E(2×25) + F(4×4)
= 30 + 24 + 21 + 24 + 50 + 16
= 165 Bit