PARCIAL FINAL TEORICO

PRESENTADO POR:
JUAN CAMILO BAZURTO ARIAS

PRESENTADO A:
SEBASTIAN CAMILO MARTINEZ REYES

ESCUELA COLOMBIANA DE INGENIERÍA JULIO GARAVITO
ALGORITMOS Y ESTRUCTURAS DE DATOS
PROGRAMA DE INGENIERÍA DE SISTEMAS
BOGOTÁ D.C.
2021 – 1

DIA 18 | MES 05 | ANO 2021

Juan Camilo Bazurto Arias :)

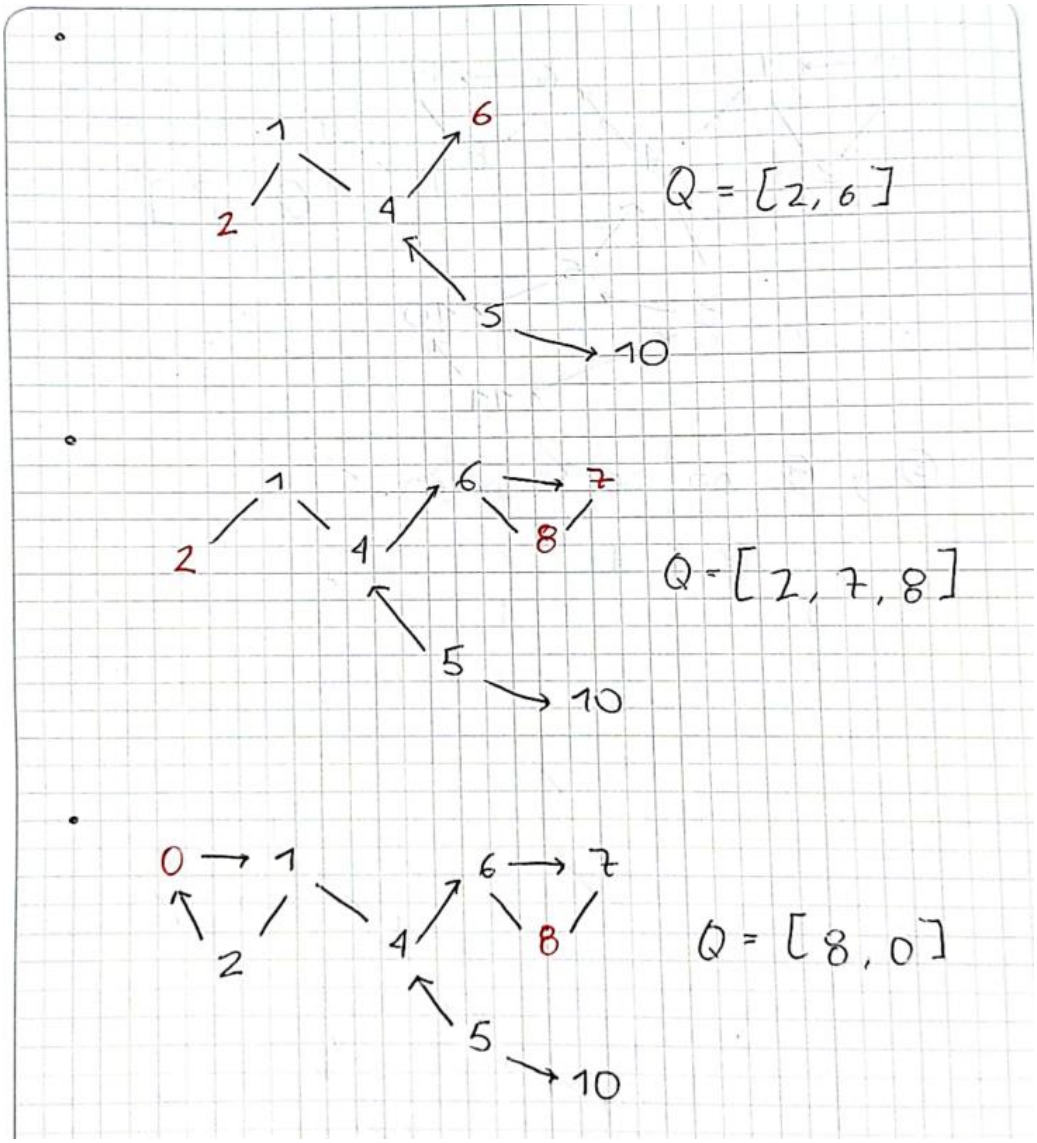
1.

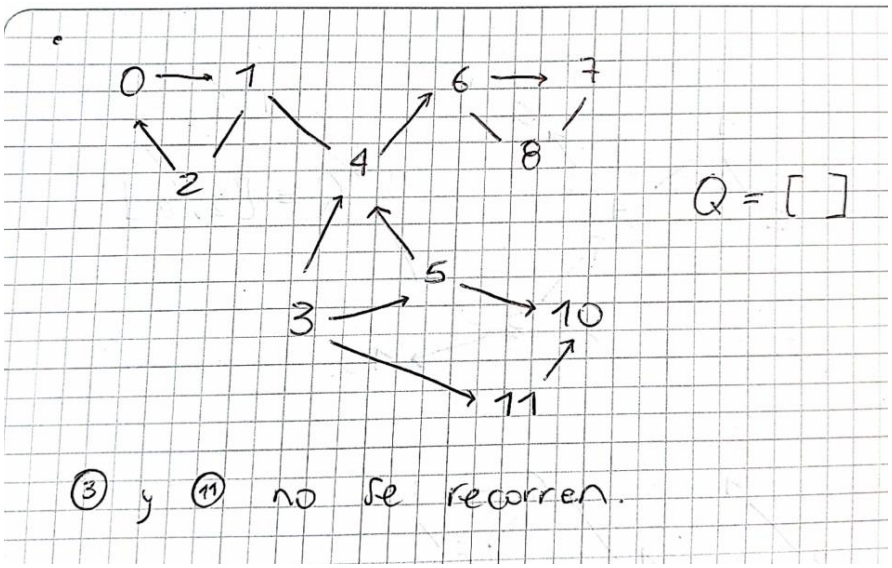
$G.V = [0, 1, 2, 3, 4, 5, 6, 7, 8, 10, 11]$

$G.E = [(0,1), (1,2), (1,4), (2,0), (2,1), (3,4), (3,5), (3,11), (4,1), (4,6), (5,4), (5,10), (6,7), (6,8), (7,8), (8,7), (8,6), (11,10)]$

$\Gamma = 5$

- 5 → $Q = [5]$
- 4 ← 5 → 10 $Q = [4, 10]$
- 1 — 4 → 6, 4 → 5 → 10 $Q = [1, 6]$





③ y ⑪ no se recorren.

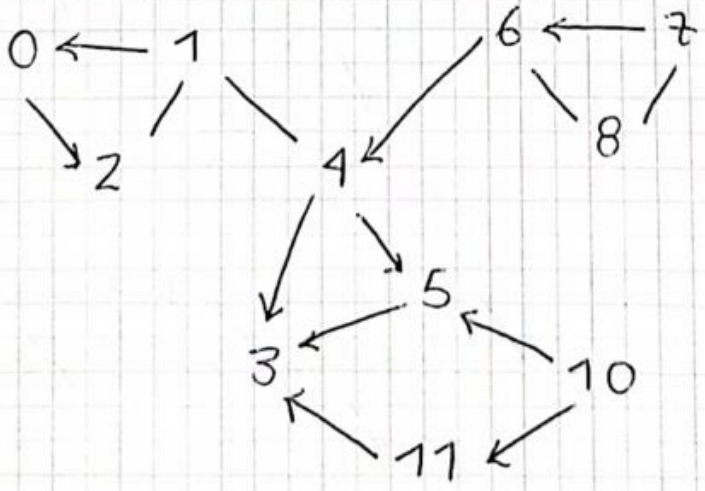
2.

	0	1	2	3	4	5	6	7	8	10	11
0	0	1	0	0	0	0	0	0	0	0	0
1	0	0	1	0	1	0	0	0	0	0	0
2	1	1	0	0	0	0	0	0	0	0	0
3	0	0	0	0	1	1	0	0	0	0	1
4	0	1	0	0	0	0	1	0	0	0	0
5	0	0	0	0	1	0	0	0	0	1	0
6	0	0	0	0	0	0	0	1	1	0	0
7	0	0	0	0	0	0	0	0	1	0	0
8	0	0	0	0	0	0	1	1	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	1	0

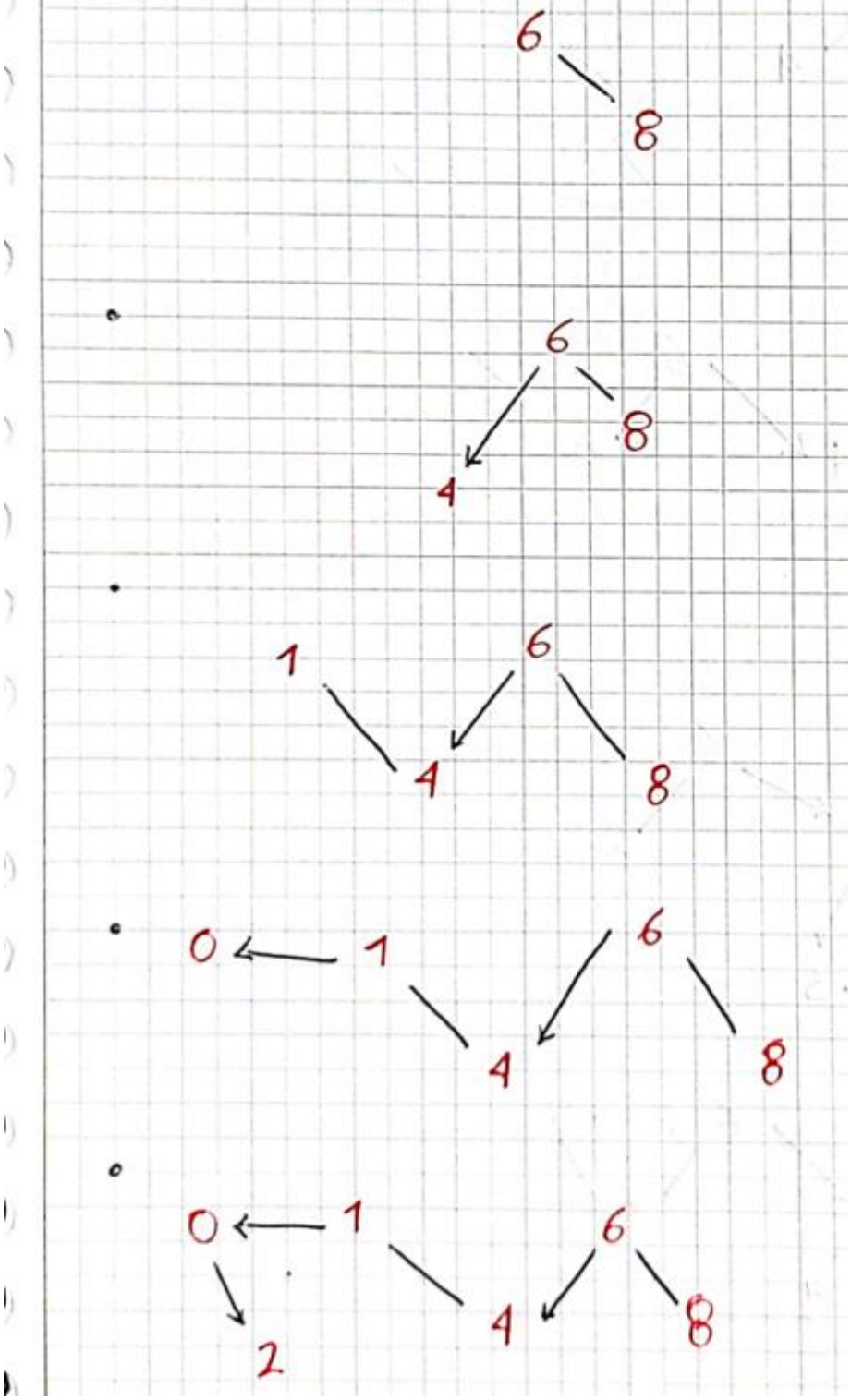
$= 6$

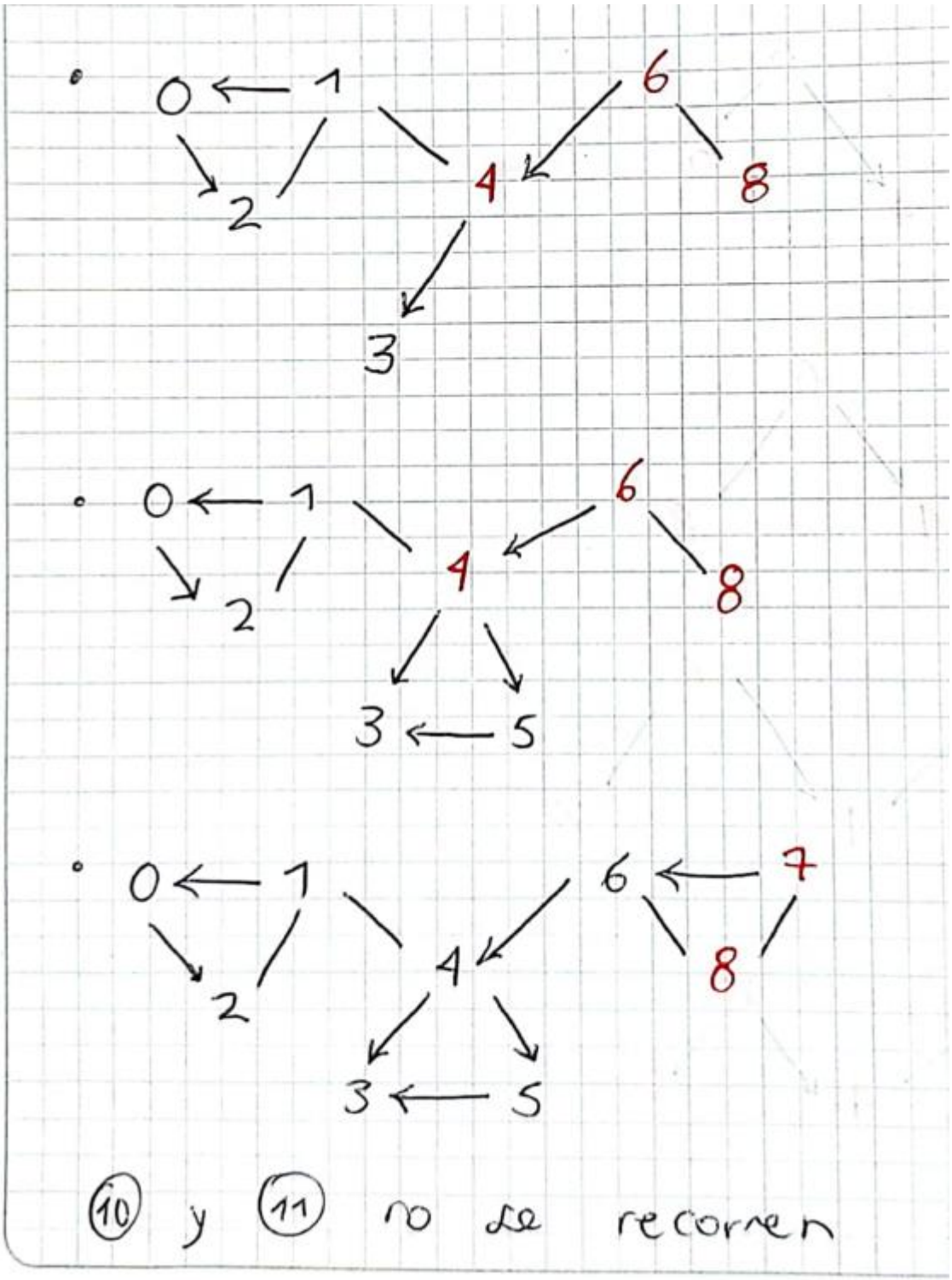
$G^T =$

	0	1	2	3	4	5	6	7	8	10	11
0	0	0	1	0	0	0	0	0	0	0	0
1	1	0	1	0	1	0	0	0	0	0	0
2	0	1	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0
4	0	1	0	1	0	1	0	0	0	0	0
5	0	0	0	1	0	0	0	0	0	0	0
6	0	0	0	0	1	0	0	0	1	0	0
7	0	0	0	0	0	0	1	0	1	0	0
8	0	0	0	0	0	0	1	1	0	0	0
10	0	0	0	0	0	1	0	0	0	0	1
11	0	0	0	1	0	0	0	0	0	0	0

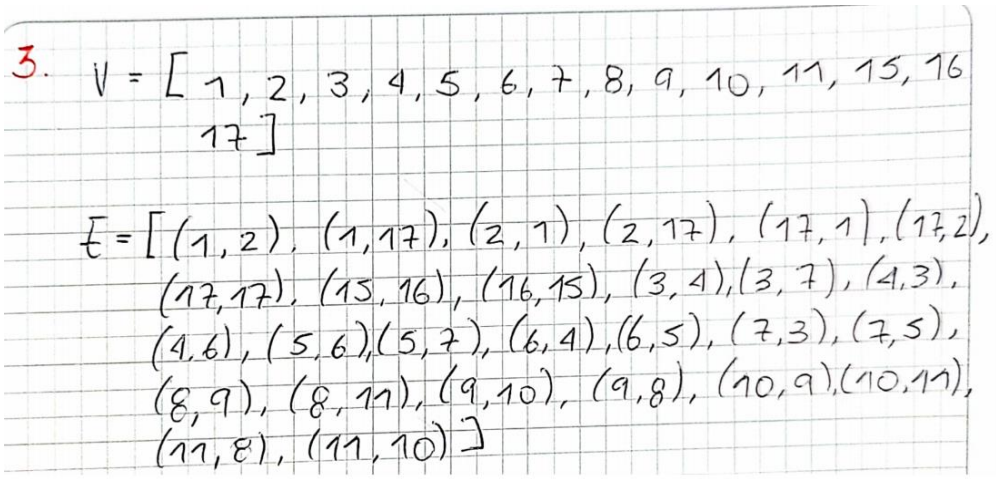


$S = 8$





(10) y (11) no se recorren



- {1}{2}{3}{4}{5}{6}{7}{8}{9}{10}{11}{15}{16}{17}
  (15,16)
- {1}{2}{3}{4}{5}{6}{7}{8}{9}{10}{11}{15, 16}{17}
  (1, 17)
- {1, 17}{2}{3}{4}{5}{6}{7}{8}{9}{10}{11}{15, 16}
  (1, 2) (17, 2)
- {1, 2, 17}{3}{4}{5}{6}{7}{8}{9}{10}{11}{15, 16}
  (3, 4)
- {1, 2, 17}{3, 4}{5}{6}{7}{8}{9}{10}{11}{15, 16}
  (4, 6)
- {1, 2, 17}{3, 4, 6}{5}{7}{8}{9}{10}{11}{15, 16}
  (6, 5)
- {1, 2, 17}{3, 4, 5, 6}{7}{8}{9}{10}{11}{15, 16}
  (3, 7) (5, 7)
- {1, 2, 17}{3, 4, 5, 6, 7}{8}{9}{10}{11}{15, 16}
  (8, 9)
- {1, 2, 17}{3, 4, 5, 6, 7}{8, 9}{10}{11}{15, 16}
  (9, 10)
- {1, 2, 17}{3, 4, 5, 6, 7}{8, 9, 10}{11}{15, 16}
  (8, 11) (10, 11)
- {1, 2, 17}{3, 4, 5, 6, 7}{8, 9, 10, 11}{15, 16}

4. CAMINOS MINIMOS.
    - S a T:

      [S, Y, T]

      Peso: 8

    - S a X:

      [S, Y, T, X]

      Peso: 9
    - S a Y:

      [S, Y]

      Peso: 5
    - S a Z:

      [S, Y, Z]

      Peso: 7

5. CAMINOS MINIMOS DESDE S = 0.
    - 0 a 1:

      [0, 1]

      Peso: 5

    - 0 a 2:

      [0, 1, 2]

      Peso: 6

    - 0 a 3:

      [0, 1, 6, 5, 3]

      Peso: 9

    - 0 a 4:

      [0, 1, 6, 5, 4]

      Peso: 9

- 0 a 5:
  [0, 1, 6, 5]
  Peso: 7

- 0 a 6:
  [0, 1, 6]
  Peso: 7