CS & IT ENGINEERING

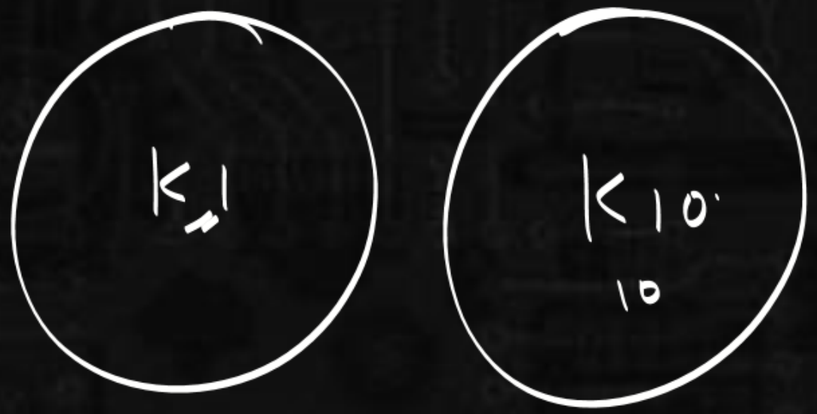
Graph Theory

DPP 10

Discussion Notes

[NAT]

1. If G is a disconnected graph with 11 vertices and maximum number of edges, then matching number of G + chromatic number of G = 15 .



$\chi(G) =$

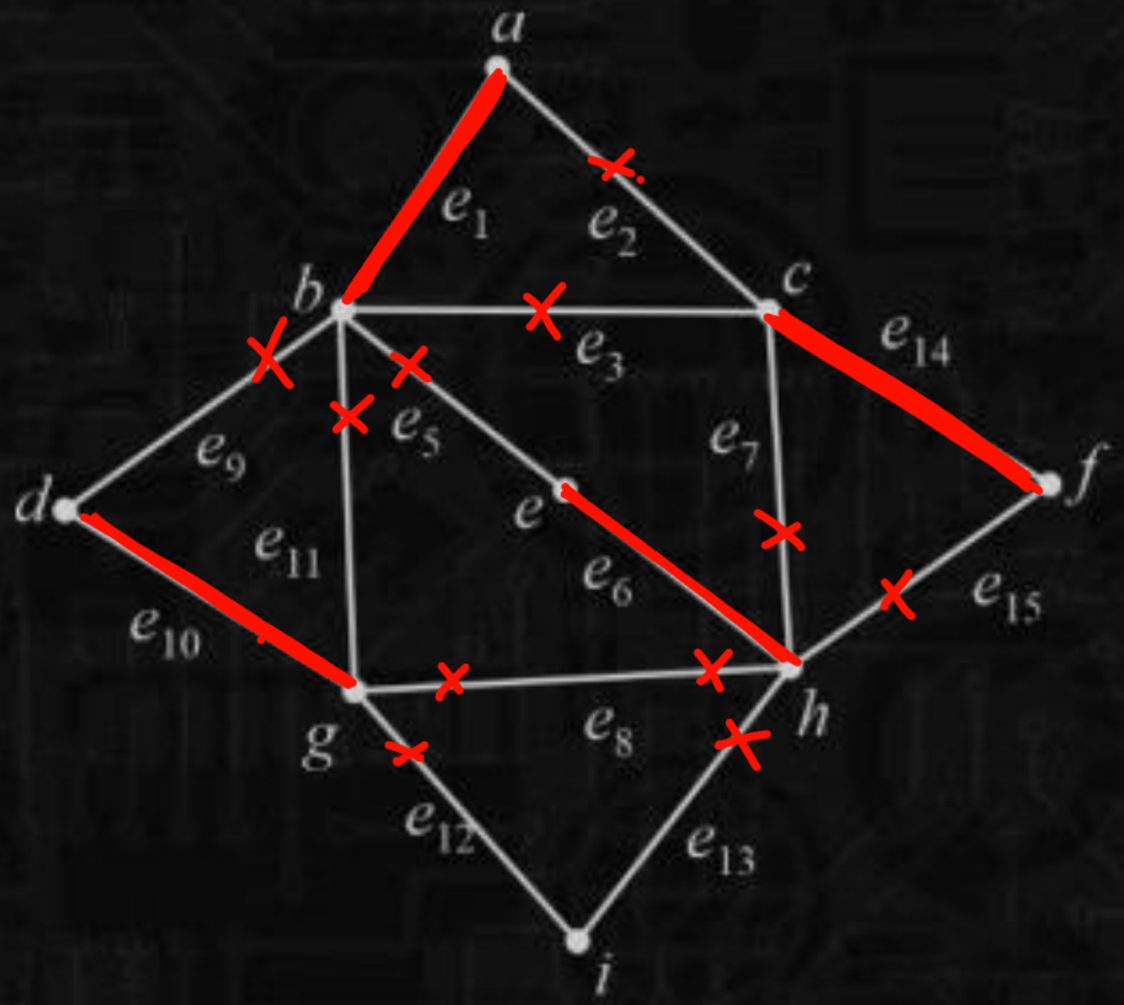
$m(K_{10}) = \left\lfloor 10/2 \right\rfloor = 5.$

[MCQ]

2. The matching number of the graph shown is ___.

(a) 4 (b) 3

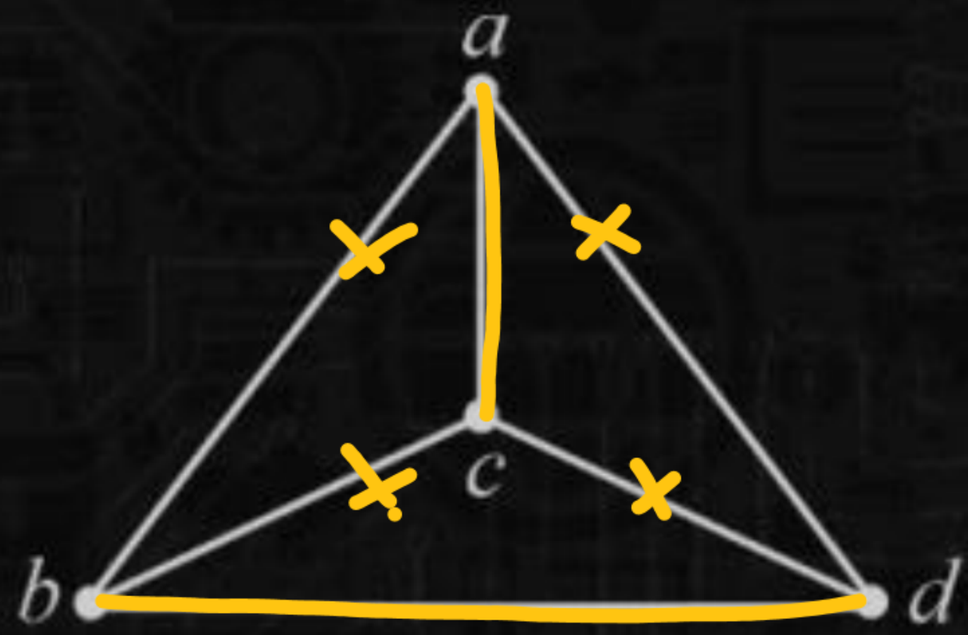
(c) 5 (d) 6



[NAT]

3. Number of maximal matching in the graph shown is 3.

{ac, bd}
{cd, ab}
{bc, ad}



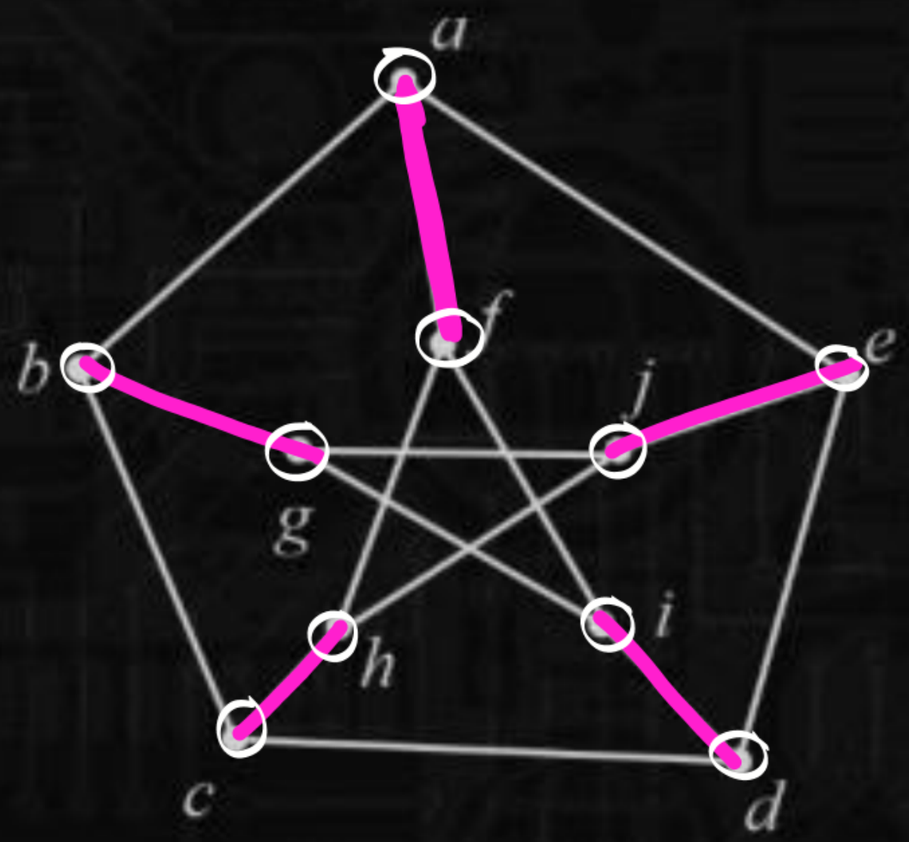
[MCQ]

4. The covering number of the graph shown is ____.

(a) 4 (b) 5

(c) 6 (d) 7

b



[MCQ] msq

5. Consider the graph shown.
Which of the following is correct?

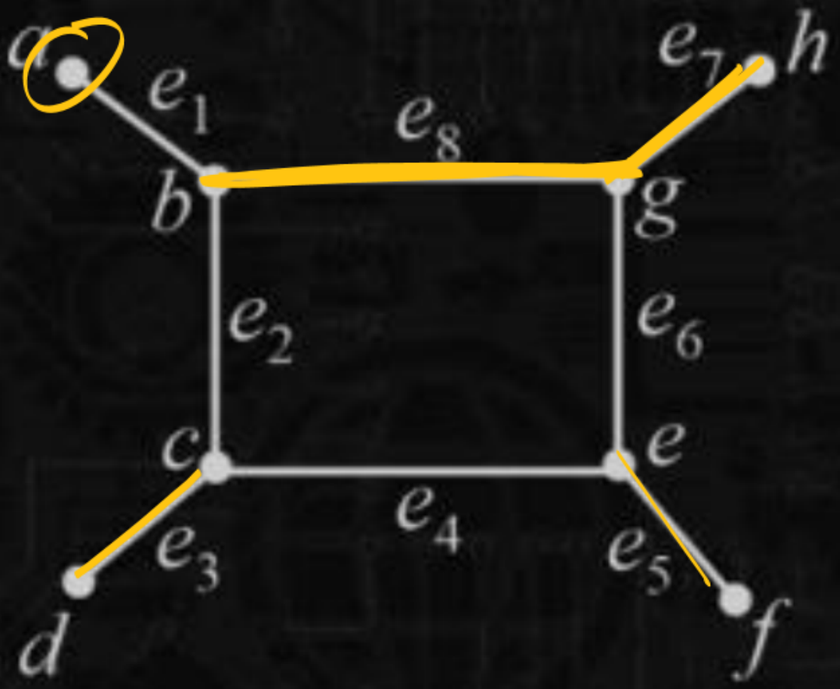
(a) Covering set = $\{e_1, e_4, e_5, e_7\}$ ✗

(b) Covering set = $\{e_1, e_3, e_5, e_7\}$ ✓

(c) Covering set = $\{e_1, e_3, e_4, e_5, e_7\}$ ✓

(d) Covering set = $\{e_3, e_5, e_7, e_8\}$ ✗

(b, c)




THANK YOU GW
SOLDIERS !