

3a)

Graph shown in (a) is not planar.

Reason: Kuratowski's Theorem states that a graph is not planar if it contains K5 or K3,3 (or a homeomorphic subgraph).

This graph contains K5 given A-L-S-T-C, with subgraphs

A-N-T

A-G-I-K-S

L-J-H-E-C

S-T

C-M-S

L-R-S