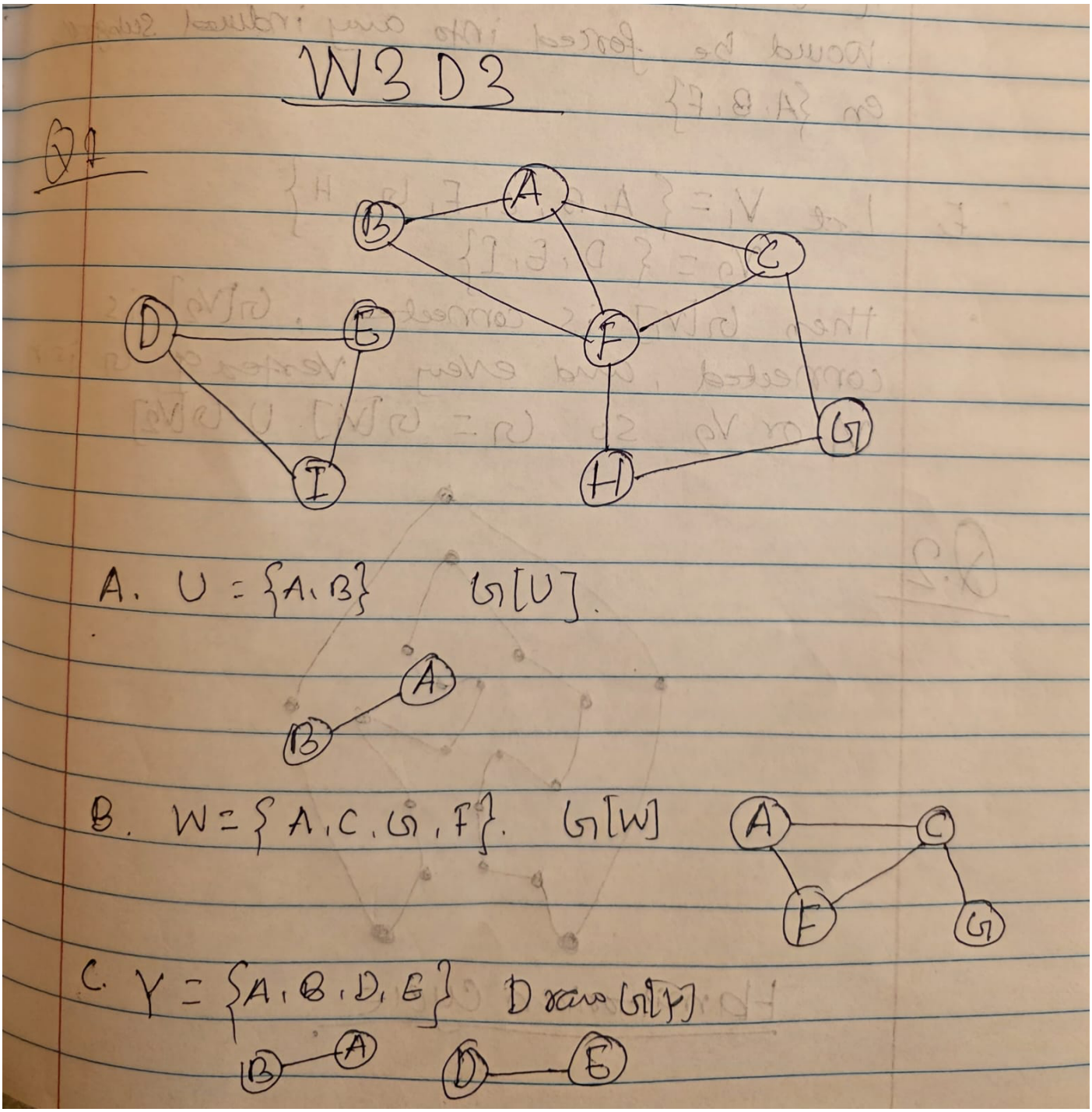
W3D3_solution

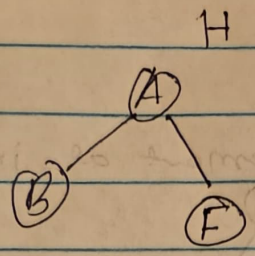
Q1,2

Part 1



Part 2

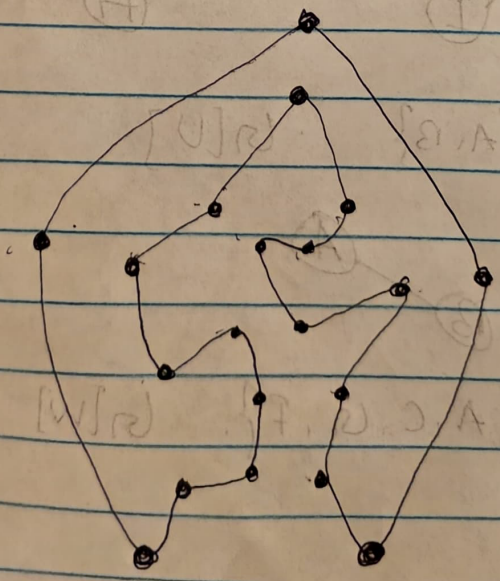
D.



H is not an induced subgraph of G because it omits the edge between B to F that would be forced into any induced subgraph on {A, B, F}

E. Let $V_1 = \{A, B, C, F, G, H\}$
$V_2 = \{D, E, I\}$
then $G[V_1]$ is connected, $G[V_2]$ is connected, and every vertex of G is in V_1 or V_2 so $G = G[V_1] \cup G[V_2]$

Q.2



Hamiltonian cycle.