Question 1:

Algorithm	Time Complexity	Space Complexity	Complete?	Optimal?
BFS	$O(b^d)$	$O(b^d)$	Yes	Yes (Uniform cost only)
UCS	$O(b^{(1+C/\varepsilon)})$	$O(b^{(1+C/\varepsilon)})$	Yes	Yes
DFS	$O(b^d)$	$O(bd)$	No	No
DLS	$O(b^L)$	$O(bL)$	No	No
IDS	$O(b^d)$	$O(bd)$	Yes	Yes (Uniform cost only)
A*	$O(b^d)$	$O(b^d)$	Yes	Yes

b: branching factor
d: depth (max depth for DFS)
C: Optimal solution cost
ε: Minimum cost
L: Depth limit