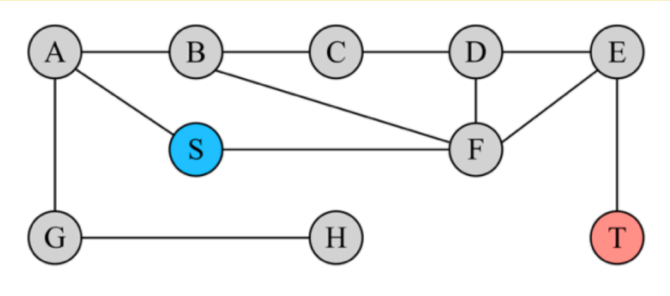
Assignment 1.
[QA].

COMP3270
(3035946760)

1. BFS.

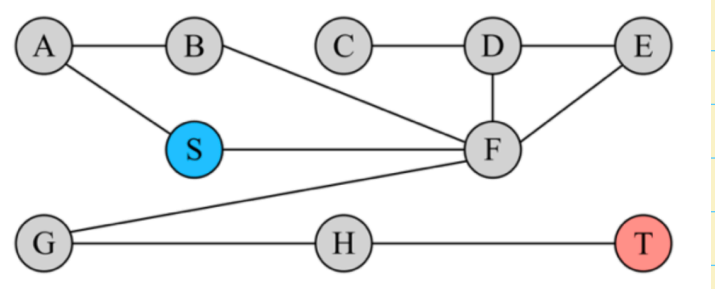


Exploring Node.	Queue (FIFO)
init.	[S].
S	[SA, SF].
A	[SF, SAB, SAG].
F	[SAB, SAG, SFB, SFD, SFE].
B	[SAG, SFB, SFD, SFE, SABC].
G	[SFB, SFD, SFE, SABC, SAGH]
	Skip SFB, since already visited.
D	[SFE, SABC, SAGH, SFDE].
E	[SABC, SAGH, SFDE, SFET].
C	[SAGH, SFDE, SFET].
H	[SFDE, SFET].
	Skip SFDE since E visited.

!! — FIN.

(SAFBGDECH, SFET)
exploration, path.

2. DFS

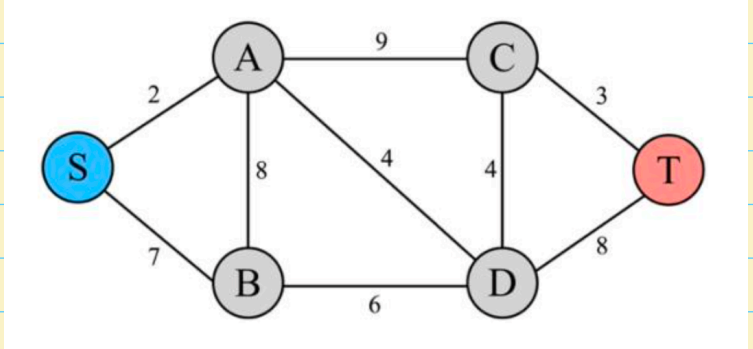


Exploring Node.	Stack (FILO).
init	[S]
S	[SA, SF].
F	[SA, SFB, SFD, SFE, SFG].
G	[SA, SFB, SFD, SFE, SFGH]
H	[SA, SFB, SFD, SFE, SFGHT].

!!

(SFGH, SFGHT)
visit, path.

3. UCS



Explored	Priority Queue.
init	[(0, S)].
S	[(2, SA), (7, SB)].
A	[(6, SAD), (7, SB), (10, SAB), (11, SAC)].
D	[(7, SB), (10, SAB), (10, SADC), (11, SAC), (12, SADB), (14, SADT)]
B	[(10, SAB), (10, SADC), (11, SAC), (12, SADB), (13, SBD), (14, SADT)].

Skip SAB since B already visited.

C	[(11, SAC), (12, SADB), (13, SADCT), (13, SBD), (14, SADT)].

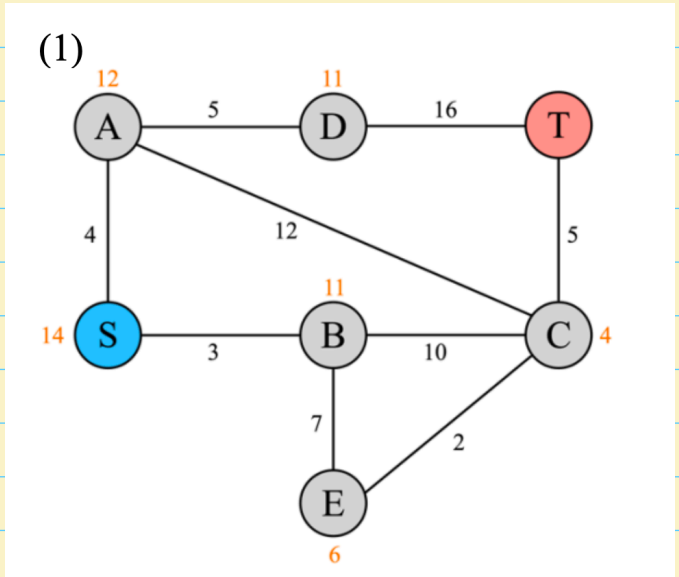
Skip SAC, SADB

!!

(SADBC, SADCT)

4. A* Search.

(1)

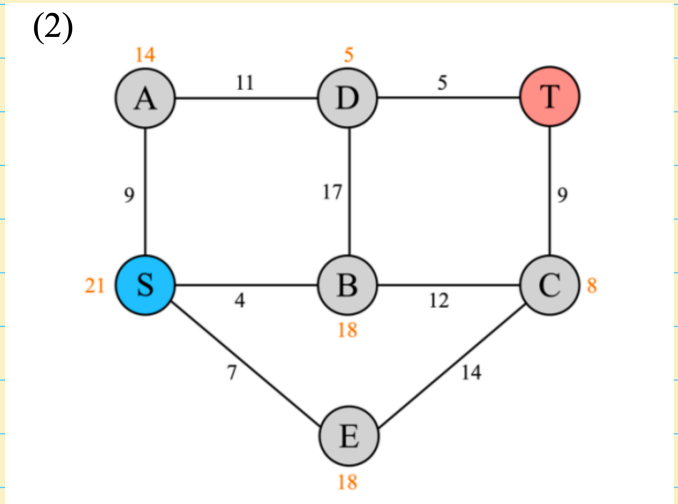


Explored	Priority Queue.
init.	[(14, S)].
S	[(14, SB), (16, SA)].
B	[(16, SA), (16, SBE), (17, SBC)].
A	[(16, SBE), (17, SBC), (20, SAC), (20, SAD)].
E	[(16, SBEC), (17, SBC), (20, SAC), (20, SAD)].
C	[(17, SBC), (18, SBECT), (20, SAC), (20, SAD)].

Skip SBC as already visited C.

!! (SBAEC, SBECT)

(2)



Explored	Priority Queue.
init.	[(21, S)]
S	[(22, SB), (23, SA), (25, SE)].

B [(23, SA), (24, SBC), (25, SE), (26, SBD)].

A [(24, SBC), (25, SAD), (25, SE), (26, SBD)].

C [(25, SAD), (25, SBCT), (25, SE), (26, SBD)].

D [(25, SADT), (25, SBCT), (25, SE), (26, SBD)].

!! (SBACD, SADT)