



Green University of Bangladesh

Department of Computer Science and Engineering

Mid Assignment

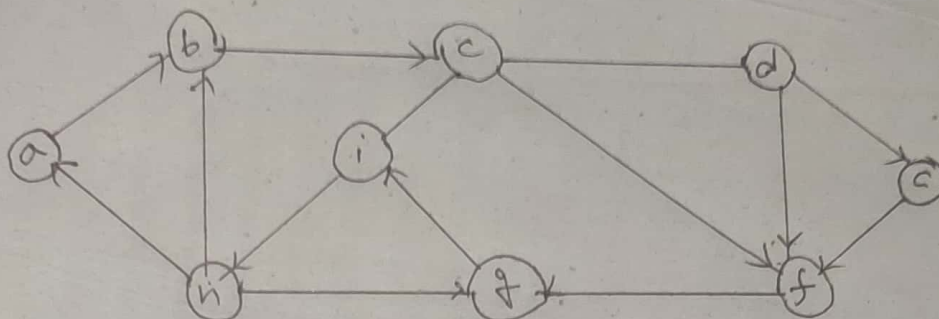
Course Title: Algorithms

Course code: CSE-205

Date of Submission: 23.03.2021

Submitted to:	Submitted by :
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Ans to the Q. no: 1



d = discovery time
 f = finishing time.

node (i) $d = 1, f = 18$

node (h) $d = 2, f = 17$

node (a) $d = 3, f = 16$

node (b) $d = 4, f = 15$

node (c) $d = 5, f = 14$

node (d) $d = 6, f = 13$

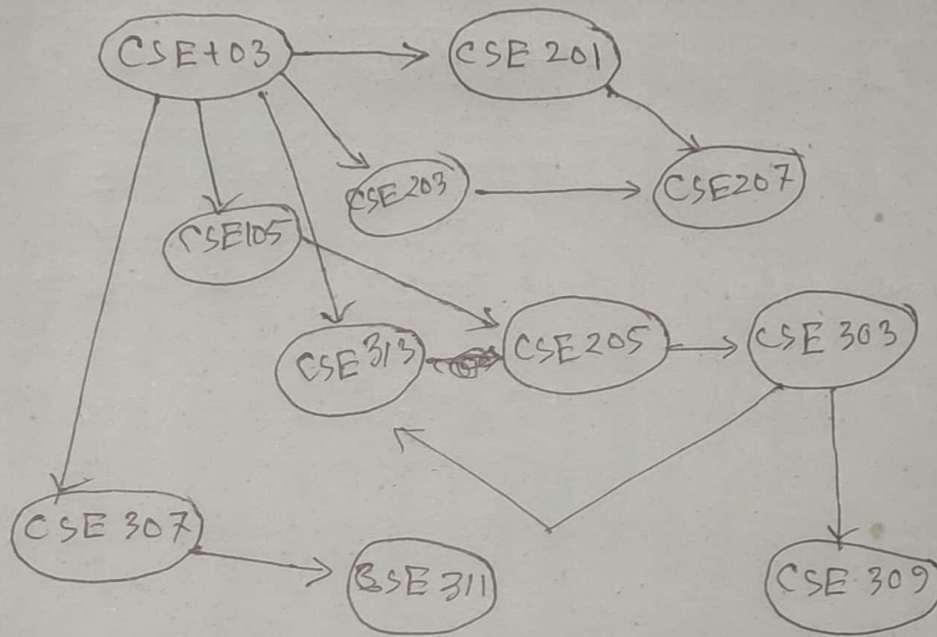
node (e) $d = 7, f = 12$

node (f) $d = 8, f = 11$

node (g) $d = 9, f = 10$

Ans to the Q.no: 2

Here, is the dependency Graph



we use Topological Sort to solve this problem.

Let every table element ~~a~~ to a to r.

Course code	Prerequisite	Course code	Prerequisite
CSE 201 = a	CSE 103 = f	CSE 309 = k	CSE 205 = o
CSE 203 = b	CSE 103 = g	CSE 311 = I	CSE 307 = P
CSE 203 = c	CSE 105 = h	CSE 313 = m	CSE 103 = q
CSE 207 = d	CSE 203 = i	CSE 313 = n	CSE 303 = r
CSE 303 = e	CSE 205 = j		

now Linear order on the table blew that,

f, g, h, a, I, b, c, j, o, d, r, e, P, k, I, m, n

CSE 103 → CSE 103 → CSE 103 → CSE 105 → CSE 201 →
 → CSE 203 → CSE 203 → CSE 203 → CSE 205 → CSE 205 → CSE 207 →
 CSE 303 → CSE 303 → CSE 307 → CSE 309 → CSE 311 → CSE 313
 → CSE 313

Topological sort Algorithm I use to Solve the Problem.

The topological ordering can also be used to quickly compute shortest paths through a weighted directed acyclic graph.