Question 1. [12 MARKS]

Consider this schema for Twitter, a social media platform where users post messages called "tweets".

Relations

User(<u>userID</u>, name, email)
A Twitter user.

Tweet(<u>tweetID</u>, userID, content, day)
The user with *userID* made a tweet containing *content* on *day*.

Follows(<u>a, b</u>)
User a follows user b on Twitter, which means that a has subscribed to b's tweets.

Likes(<u>who, what</u>, d)
User *who* liked tweet *what* on day *d*.

Integrity Constraints

Tweet[userID] $\subseteq$ User[userID]

Follows[a] $\subseteq$ User[userID]

Follows[b] $\subseteq$ User[userID]

Likes[who] $\subseteq$ User[userID]

Likes[what] $\subseteq$ Tweet[tweetID]

Part (a) [2 MARKS]

Does the schema enforce this constraint: A user cannot like the same tweet twice? Circle one:

Solution:

[Yes] No.