Software Engineering COMP433
Tutorial -1- Good attributes of Software

Q#1) Which of the following systems, you would accept? Justify your Answer.

reliability → a) A Medical system in the ICU section in hospital that has a failure rate of 2% in a year. *Critical System.*
:? *NO, very dangeroues, mislead the nurses and doctors this such case must be more accurate.*

b) A bank security system that has a 95% reliability.
:? *NO, high security systems, any crash or error will Cuz loose of million of dallers and information regarding the clients*

innactnative → c) A university registration system that requires 1 day of student training before students are able to use it.
usability
:? *NO, it should be easy for all users ~~process~~, it will Cost money, time, and resources should be an ~~af~~ recient and acceptiable system*

d) A Palestinian banking system that serves a national bank and allows1000 concurrent users to access the system
:? *NO, not reliable, and needsmore Scaliabilitey, Calculate growth for 10 years #of clients*

e) A train station control system that needs **15 days** of user training before administrators can use it ? *acceptable, and not fine at the Same time good if we have more days, the more traing better.*

f) A national pull system (انتخابات) that a reliability of 96%? *No, not efficenet, may cause problem wilth the total ballat of all voles.*

g) The failure frequency of a heart-monitoring unit that will operate in a hospital's intensive care ward is required to be less than one in 20 years. Its heart attack detection function is required to have a failure rate of less than one per million cases. *very good.*

↓ *critical systems*

h) One requirement of the new software system to be installed in a supermarket will not fail, on average, more than 10 minutes per month during the supermarket's working hours. In addition, the probability that the off-time (the time needed for repair and recovery of all the supermarket services) be more than 30 minutes is required to be less than 0.5%. *depends on the size of the supermarket.*

i) An HR (Human Resources Management) system that will be used by HR managers to manage employee information, hiring, on boarding, vacation management, reporting etc, that requires new users to be trained in 8 hours. *yes fine.*

Q#2) If you were a consultant responsible of buying a system for your university to manage university student registration, and were offered the choice of two systems:
A) The first system, is only $100k to buy but requires $1k for an annual system support cost. It requires 5 days training and comes with a new version every year.
B) The second system is only $40k to buy, but requires $3k in annual system support cost. It requires 3 days user training and is updated with a new version every 2 year.
In your opinion, which of the two systems has: ↳ *should ash about reliability and ask for a test*

- higher maintainability *a*
- higher dependability
- higher usability *b*