Total Marks-15   Instructor Dr. Wafa Basit   Total Time-20 minutes

Question # 1 . Consider the following nonfunctional requirements and determine which of them can be verified and which cannot. Give reasons. (5 points)

(a) "The user interface must be user-friendly and easy to use."

 The above requirement is not verifiable.

(b) "The number of mouse clicks the user needs to perform when navigating to any window of the system's user interface must be less than 10."
 The above requirement is verifiable because the timeline has been provided.

(c) "The user interface of the new system must be simple enough so that any user can use it with a minimum training."

 The above requirement is not verifiable.

(d) "The maximum latency from the moment the user clicks a hyperlink in a web page until the rendering of the new web page starts is 1 second over a broadband connection."

 The above requirement is verifiable because the timeline has been provided.

(e) "In case of failure, the system must be easy to recover and must suffer minimum loss of important data."

 The above requirement is not verifiable.

Question # 2 . (a)Derive high level use cases for the restaurant automation system. Draw the use case diagram. Make use of <include> and <extends>.(b) Describe only five in the following format (10 points)

UC5: MarkTableReady — Busboy marks a table ready for use after it has been cleaned and prepared for a new party. The Host is automatically notified, so now they can seat a new customer party at this table.

Students shall make a usecase diagram showing actors and relationship between usecases.

1. *Make reservation*
2. *Cancel Reservation*
3. *Update Reservation*
4. *Notify Customer*
5. *Make Payment*