



EAST WEST UNIVERSITY
Department of Computer Science & Engineering
B.Sc. in Computer Science and Engineering Program
MidTerm I Examination, Fall 2021 Semester

Course: CSE347 Information System Analysis and Design, Section-2
Instructor: Md. Mohsin Uddin, Senior Lecturer, Department of CSE
Total Marks: 40 (20 will be counted for final grading)
Time: 1 Hour and 20 Minutes

Note: There are **Six** questions, answer all of them. Course Outcome (CO), Cognitive Level and Marks of each question are mentioned at the right margin.

1. Analyze your strategies as a project manager (PM) for each of the following project risks. [CO4,C4, Marks:10]

- Initially, a traditional relational database management system (RDBMS) was used. But users are being increased at an alarming rate (10 millions uses are being added per month).
- The revenue model has been changed.

2. Some of the requirements of an information management system are mentioned below: [CO2,C3, Marks:4]

- i. A monthly report on system usage has to be generated.
- ii. The system is required to have 99.99% availability.
- iii. The system shall generate each day, for each clinic, a list of patients who are expected to attend appointments that day.
- iv. Privacy of information, the export of restricted technologies, intellectual property rights, etc. should be audited.

Classify the above requirements into functional and nonfunctional. **Justify** your answer.

3. Which requirement engineering process would be the most appropriate for each of the following scenarios? **Justify** your answer. [CO2,C3, Marks:6]

- i. The user and system requirements are being written in a requirements document.
- ii. People often find it hard to describe what they do because it is so natural to them. Sometimes, the best way to understand it is to observe them at work.
- iii. Developing tests for requirements to check testability.

4. Which Key Process Area (KPA) in CMM model would be the most appropriate for each of the following scenarios? **Justify** your answer. [CO3,C3, Marks:10]

- i. "Develop and maintain a usable set of software process assets that improve process performance across the projects and provide a basis for cumulative, long-term benefits to the organization."
- ii. "Change requests and problem reports for all configuration items/units are initiated, recorded, reviewed, approved, and tracked according to a documented procedure."
- iii. "System and acceptance testing of the software are planned and performed to demonstrate that the software satisfies its requirements."
- iv. "Critical dependencies between engineering groups are identified, negotiated, and tracked according to a documented procedure."
- v. "The quality of the project's software products is measured, analyzed, and compared to the products' quantitative quality goals on an event-driven basis."
- vi. "The analysis of defects by ranking causes from most significant to least significant."
- vii. "A written approval exempting an individual from training that has been designated as required for a specific role. The exemption is granted because it has been objectively determined that the individual already possesses the needed skills to perform the role."
- viii. "The purpose is to continually improve the software processes used in the organization with the intent of improving software quality, increasing productivity, and decreasing the cycle time for product development."
- ix. "Group audits designated software work products to verify compliance."
- x. "Estimates for the software project's effort and costs are derived according to a documented procedure."

5. Which type of system conversion can be implemented for software implementation phase of Software development lifecycle (SDLC) for each of the following scenarios? [CO1,C3, Marks:6]
Justify your answer.

- i. It allows users to learn the new system at their own pace, without the fear that making mistakes would be disastrous.
- ii. Extra staffs required to supervise parallel runs are not available.
- iii. The new system has several independent components.

6. Which phase of Software development lifecycle (SDLC) does the software development project reside in for each of the following scenarios? [CO1,C3, Marks:4]
Justify your answers.

- a. “The unit tests are being performed.”
- b. “The system is being checked up from time to time and modified if necessary.”