



United International University (UIU)

Dept. of Computer Science & Engineering (CSE)

Exam Name: Mid Term Exam Trimester: Fall 2023
Course Code: PMG 4101, Course Title: Project Management
Total Marks: 30 Duration: 1 hour 45 mins

Any examinee found adopting unfair means will be expelled from the trimester / program as per UIU disciplinary rules.

Answer all the questions.

Consider the following Scenario:

Support your team is embarking on a multifaceted project “**Connectify**” that involves developing an immersive social networking web application with a smart home automation system for a product-based company, named ‘X’. The client envisions creating a one-of-a-kind social platform that combines elements of social networking and home automation. Users will connect with friends, share posts, chat, and control their smart homes through the app. You understand that in this project high-risk features and goals are involved and the challenge is to create a seamless user experience, integrating social interactions, and device control. Your software engineering team has experience in mobile app development and IoT handling but not very skilled for a project of this complexity. You need to understand the dynamics of both social networking and home automation. Now as a **project manager**, you had to hire other engineers too such as Civil engineers, Electrical Engineers and System Engineers who are responsible for their respective designated works. There are designers in your team who are planning to send you the UI design in multiple phases and based on the final approved design your application will be developed. According to this scenario, answer the following questions.

1. Choose a software engineering methodology for developing the above-mention software system and mention the rationale for choosing the methodology. [CO1] 2
2. Define the concept of Vision and Scope document. Write down the Vision and Scope Document for the project described above. [CO2] 3
3. Mention the major principles followed in Work Breakdown Structure (WBS) estimation method. Show WBS and estimate (in the unit of day or hour) for any **two** WBS pieces/components for the above scenario. [CO3] 5
4. Suppose you want to form an estimation team consists of three members. Show the three steps of estimation (team selection, kick-off meeting, and individual estimation sheet shows iterations) for the above-described project, according to Delphi Wideband estimation method. [CO3] 5
5. Write down the major steps (course of events) on Risk Plan management method. Develop a Risk Plan management sheet showing at least two major risks for the above scenario. Define the basic concept of RMMM risk management system. [CO2] 5

6. Progress report submission and presentation on developed Research paper. The interim research paper must cover problem statement, objectives of the research, comprehensive literature review regarding the problem and different solving methodologies, proposed methodology for solving the problems or research, scheduling of the research completion. **(Do not answer this question, already completed in classroom).**

[CO6]

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