United International University (UIU)
Dept. of Computer Science & Engineering (CSE)

Mid Term Exam:: Trimester: Spring 2022
Course Code: CSE 469, 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.

The Scenario

Say, you have to develop a software to manage your home kitchen. You have to enter the daily purchase of supplies into a software system. Everyday, the use of materials, that is the items that are used, will also be recorded in the system. The system will produce a list of monthly use of materials, next month demand of kitchen or next week demand based on previous month usage. Now answer the followings based on this scenario.

1. Choose a software engineering methodology that you will be using to develop this System. State some justifications   **4**

   [CO1- Adapt a process methodology to develop a project.]

2. Write the Vision and Scope statement.   **4**

   [CO2- Collect Requirement, Plan, schedule a project including risk assessment with proper documentation and presentation.]

3. Develop a work breakdown structure [CO2]   **4**

4. Say you are a team of 3 members. Use Delphie estimation to estimate the project.   **4**

   [CO3-Estimate Cost, Optimization, and performance calculation.]

5. What are the risks involved? Mention some of the risks as per Boehms criteria. [CO2]   **4**

6. In one line / one diagram describe the followings   **10 X 1= 10**
   40 hour rule of decomposition
   100% rule in WBS Principle
   Planned outcome, not planned actions
   Risk management hierarchy
   Scrum Master
   Product Backlog
   Pair programming
   Incremental Iteration model
   Estimation
   Phases of Rational Unified Process
   Disadvantage of Extreme Programming

Mid Term Exam:: Trimester: Spring 2022
Course Code: CSE 469, Course Title: PROJECT MANAGEMENT
Total Marks: 40   Duration: 1 hour 45 mins

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Answer all the questions.

The Scenario

Say, you have to develop a software to manage your home kitchen. You have to enter the daily purchase of supplies into a software system. Every day, the use of materials, that is the items that are used, will also be recorded in the system. The system will produce a list of monthly use of materials, next month demand of kitchen or next week demand based on previous month usage. Now answer the followings based on this scenario, where applicable.

1. Find the DET and RET for the calculation of ILF (Internal Logical Files)   5
   [CO3]

2. Write the Use Case for "Enter the daily supplies" in proper format.   5
   [CO2]

3. Mention 2 nonfunctional requirements for the above system with specification.   5
   [CO2]

4. Develop a Gantt chart for the above project.   5
   [CO5]

5. Which project type is most suitable for the above project?   5
   [CO3]

6. Mention one advantage and one disadvantage for each type of review.   5
   [CO4]

7. In one sentence, say, why we need SPI? Explain Six Sigma   5
   [CO4]

8. For 6000 lines of code of organic type, find all the COCOMO parameters   5
   [CO4]

Software project	a_i	b_i	c_i	d_i
Organic	2.4	1.05	2.5	0.38
Semi-detached	3.0	1.12	2.5	0.35
Embedded	3.6	1.20	2.5	0.32

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Mid Term Exam:: Trimester: SUMMER 2022
Course Code: CSE 469, Course Title: PROJECT MANAGEMENT
Total Marks: 30   Duration: 1 hour 45 mins

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Answer all the questions.

The Scenario

Say, you have to develop a software to manage a fish farm. You have to enter the daily purchase of supplies into a software system. Everyday, the use of materials, that is the items that are used as food, will also be recorded in the system. The system will also keep track of total fish management like how many sold or died, how many sick, etc. It will keep track of the accountings of the farm like how much spent for purchasing fish feed and income from fish sales. Now answer the followings based on this scenario.

1. Choose a software engineering methodology that you will be using to develop this System. State some justifications   **5**

   [CO1- Adapt a process methodology to develop a project.]

2. Write the Vision and Scope statement.   **5**

   [CO2- Collect Requirement, Plan, schedule a project including risk assessment with proper documentation and presentation.]

3. Develop a work breakdown structure [CO2]   **5**

4. Say you are a team of 3 members. Use Delphie estimation to estimate the project.   **5**

   [CO3-Estimate Cost, Optimization, and performance calculation.]

5. In one line / one diagram describe the followings   **10 X 1= 10**
   4 elements in each WBS Element
   Verb-Oriented WBS
   4% rule of decomposition
   Scrum Master
   Product Owner
   Backlog
   Phases of Rational Unified Process
   Spiral Model
   Effort
   Mutually exclusive

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Answer all the questions.

The Scenario

We want to build a job recruitment site. In this portal, applicants can apply for job. Usually employers post new job openings in this portal. Applicants can view those open positions and apply for a job by filling an online form. The online form takes some personal information of the applicant. The job providers / employers also fill a form mentioning the characteristics of the open positions as well was the criteria of the applicants. Please answer the following questions based on this scenario.

1. Find the DET and RET for the calculation of ILF (Internal Logical Files)   [CO3]   5

2. Write the Use Case for "Apply for an open position" in proper format.   [CO2]   5

3. Mention 2 nonfunctional requirements in proper format for the above system with specification.   [CO2]   5

4. Develop a Gantt chart for the above project and mention the rationale/causes of different assumptions or estimations.   [CO5]   5

5. Which COCOMO type project would be most suitable for the above-mentioned project – justify your consideration?   [CO3]   5

6. In one sentence, say, why we need SPI? Explain CMMI in terms of software project improvisation process.   [CO4]   5

7. For 4000 lines of code of organic type, find the all the COCOMO parameters   [CO5]   5

Software project	a_b	b_b	c_b	d_b
Organic	2.4	1.05	2.5	0.38
Semi-detached	3.0	1.12	2.5	0.35
Embedded	3.6	1.20	2.5	0.32

8. Say you are the project manager of a software project. You have 5 developers. Now there are a lot of opportunities for software engineers globally. So, there is a chance that in the middle of the project some of your developers might leave the company for going out of country. Considering this, please identify the following items in this scenario.   [CO2]   5

Risk Factor
Risk Event
Risk Management
Risk Monitoring
Risk Effect