

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)  
ORGANISATION OF ISLAMIC COOPERATION (OIC)  
DEPARTMENT OF BUSINESS AND TECHNOLOGY MANAGEMENT

Semester Final Examination  
Course No. : BTM 4801  
Course Title : Project Management

Summer Semester, A. Y. 2022-2023  
Time : 3 hours  
Full Marks : 150

Answer all 6 (Six) questions. All questions carry equal marks. Marks of each question and corresponding CO and PO are written in the right margin with brackets.

1. Company XYZ began a software development project to enhance its CRM system. Facing early obstacles due to an inadequate project life cycle, they transitioned to agile methodology. This change enabled iterative development and better adaptation to evolving needs. It led to improved collaboration, flexibility, and faster project completion. Consequently, the final product exceeded customer expectations and surpassed initial project goals. 25 (CO1) (PO10)

Questions

- i. What lessons can be learned from this case study regarding the importance of selecting an appropriate project life cycle for different projects?
- ii. How did the shift in project life cycle contribute to meeting and exceeding customer expectations?

2. a) Company CBA has commenced a fresh project aimed at inaugurating an e-commerce platform. In this endeavor, the project manager opts to formulate a Work Breakdown Structure (WBS) to methodically dissect tasks. The WBS serves as a tool for pinpointing pivotal project elements, including website development, payment integration, and marketing strategies. Subsequently, each of these components undergoes further subdivision into more manageable tasks. 15 (CO2) (PO10)

Questions

- i. How does the WBS contribute to effective delegation and task management?
- ii. Illustrate some specific tasks within the WBS that are critical to the success of the e-commerce platform launch?

- b) What strategies could be employed to minimize the impact on the overall project duration, involving improvements in resource management and effective task prioritization? 10 (CO3) (PO10)

3. Mr. Abdullah, a team leader, possesses authority over his subordinates but lacks autonomy in decision-making. 25 (CO5) (PO3)

Questions:

- i. How does Abdullah's authority over his team members differ from his ability to make independent decisions?
- ii. What challenges might Abdullah face in balancing his authority over his team with his limited autonomy in decision-making?

4. In a tech startup's software development project for a mobile app, the team creates a risk plan. They identify risks like technical hurdles, user requirement alterations, and resource constraints. Prioritizing risks through assessment, they devise mitigation strategies such as contingency plans, progress tracking, and stakeholder updates. Their proactive approach aims to reduce disruptions and ensure timely, budget-compliant project completion. 25 (CO3) (PO10)

**Questions:**

- How would you prioritize the identified risks based on their potential impact on project objectives and stakeholder interests?
- What strategies would you recommend for monitoring and controlling risks throughout the project lifecycle to ensure timely and effective risk response?

5. A medium-sized tech company, Technosoft Inc., is planning to implement a new ERP system to streamline its operations. The project involves multiple departments, including IT, Finance, and Human Resources. The implementation team has developed a detailed project plan outlining the scope, timeline, and resources required. During the implementation phase, the IT team discovers critical security vulnerability in the software. Fixing the issue would require additional time and resources, impacting the project schedule and budget. 25 (CO2) (PO10)

**Questions:**

- Explain the necessary steps you need to follow to implement the changes appropriately.
- How would you prioritize addressing the security vulnerability within the context of the project's scope, timeline and budget constraints?

6. Builders Construction Company has predicted their next project in following ways. 25 (CO2) (PO10)

Activity	A	B	C	D	E	F	G
Immediate Predecessor	--	A	A, B	B	B, D	C, E	E
Expected time (in week)	7	9	12	8	8	5	5

**Instructions**

- Construct a project network for the Builders Construction Ltd.
- Perform forward and backward pass of the project.
- Determine project completion time.
- Calculate slack values.
- State critical path for the whole project.