



MALAYSIAN INSTITUTE OF INFORMATION TECHNOLOGY

**FINAL EXAMINATION
MARCH 2026 SEMESTER**

SUBJECT CODE : IDB30303
SUBJECT TITLE : IT PROJECT MANAGEMENT
LEVEL : BACHELOR
TIME / DURATION : 2:00pm – 4:00pm (2 HOURS)
DATE : 22 JUNE 2026

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given on the question paper **CAREFULLY**.
 2. This question paper is printed on both sides of the paper.
 3. This question paper consists of only **ONE (1)** section. Section A.
 4. Answer **FOUR (4)** questions **ONLY**.
 5. Please write your answers in the answer booklet provided.
 6. Answer all questions in English.
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THERE ARE 7 PAGES OF QUESTIONS, INCLUDING THIS PAGE.

SECTION A (Total: 100 marks)**Answer FOUR (4) questions.****Please use the answer booklet provided.****Question 1**

A university plans to develop a Mobile Learning Application (MLA) to support students in accessing course materials, submitting assignments, and communicating with lecturers. The project will include features such as user login, course content access, notifications, and discussion forums.

The project manager has been assigned to oversee the project. During the planning phase, stakeholders (lecturers, students, and IT staff) have provided varying requirements, some of which are unclear. The project team is also having difficulty organizing tasks and ensuring that all work aligns with the overall project objectives.

To ensure success, the project manager needs to clearly define the project scope, develop a Work Breakdown Structure (WBS), and ensure proper integration of all project components. Based on this statement, answer the following questions:

- a) Explain the importance of defining the project scope for the Mobile Learning Application project. Identify **TWO (2)** key elements that should be included in the project scope statement.

(5 marks)

- b) Develop a Work Breakdown Structure (WBS) for the Mobile Learning Application project up to at least two levels, including at least **FOUR (4)** major deliverables.

(10 marks)

- c) Project Integration Management can help ensure the success of the Mobile Learning Application project. Prepare **FIVE (5)** specific activities or processes involved in integration management.

(10 marks)

(TOTAL: 25 Marks)

Question 2

A Small and Medium Enterprise Agency in an Asian country has decided to launch an e-business initiative to support and promote entrepreneurs nationwide. Approximately 5,000 entrepreneurs across the country have established their own companies with funding from this agency. These companies offer a variety of products and services, including food, sports equipment, cosmetics, and salon services. The agency has tasked our group with developing an e-business web application and hosting e-business activities, with a budget of about RM2 million. We have been given a timeline of **TWELVE (12)** months to complete the project.

As part of the project management, we have prepared a cash flow analysis. The required team members and their minimum experience levels are outlined in **Table 1.0**. Initial information about the project, including a list of positions and minimum requirements, has been prepared to facilitate the human resources.

Instruction: Answer the following questions by referring to the information from the case scenario provided.

Table 1.0: Positions and Minimum Experience

Position	Minimum Experience
Project Manager	10 years of experience in Software development projects
Technical Manager	8 years of experience in technical aspects of e-Business
Graphic designer	6 years of experience in Web design and development
Senior System Analyst 1	5 years of experience in software development
System Developer 1	3 years of experience in software development
System Developer 2	Fresh Graduate
System Developer 3	Fresh Graduate
Network Engineer	5 years of experience in the area
Programmer 2	3 years of experience in software development
Project Associate	1 year working experience

- a) Apply your understanding of project management concepts to determine **FIVE (5)** possible stakeholders and explain their respective roles in the project.

(10 marks)

- b) Examine appropriate project time management techniques to describe how a project schedule can be developed and controlled.

(5 marks)

- c) Relate an appropriate cost management technique to monitor cost performance and schedule performance in the project and explain how it is used.

(10 marks)

(TOTAL: 25 Marks)

Question 3

AI-Based Smart Healthcare System with Cybersecurity Integration

A technology firm, MedSecureTech, is developing a cloud-based AI-powered healthcare management system for hospitals. The system integrates patient records, real-time diagnostics, telemedicine features, and predictive analytics for early disease detection. Due to the sensitive nature of healthcare data, the system also includes advanced cybersecurity mechanisms, such as multi-factor authentication, blockchain-based patient records, and AI-driven threat detection.

The project involves multiple stakeholders, including healthcare providers, IT developers, cybersecurity specialists, and government regulators. Initially, the project scope was limited to patient record management and telemedicine services. However, during development, stakeholders continuously requested additional features such as wearable device integration, mobile health tracking apps, and AI Chat-bot support.

As the project progressed, quality issues began to arise, including system bugs, delayed response times, and integration failures between modules. The project team also faced communication challenges due to distributed teams working remotely across different countries, leading to delays, misunderstandings, and inconsistent reporting.

To ensure project success, the project manager must effectively handle scope changes, maintain quality standards, and improve communication among team members.

Referring to Case Study: AI-Based Smart Healthcare System with Cybersecurity Integration, answer the following questions.

- a) Based on the case study, apply your understanding to find **THREE (3)** possible cases of scope creep in the project.

(9 marks)

- b) Use appropriate quality management practices to draw out **TWO (2)** quality issues in the project.

(4 marks)

- c) Based on the case study, apply appropriate risk management techniques to:

- i. Critically assess **TWO (2)** potential risks in the project.

(6 marks)

- ii. Develop suitable risk mitigation strategies to manage the identified risk.

(6 marks)

(TOTAL: 25 Marks)

Question 4

Referring to Case Study: **AI-Based Smart Healthcare System with Cybersecurity Integration** in **Question 3**, answer the following:

- a) Assess **TWO (2)** possible communication issues faced in the project.

(4 marks)

- b) Choose **TWO (2)** communication tools or methods to improve communication.

(6 marks)

- c) Examine the **FIVE (5)** project management process groups relevant to the project and explain how each process group is applied in the case study.

(15 marks)

(TOTAL: 25 Marks)

Question 5

Business Case: Upgrading E-commerce Website to Mobile Application for SmartMed Sdn. Berhad.

SmartMed Sdn. Berhad, an established e-commerce company, currently operates a successful website for online sales. However, with the increasing trend of mobile device usage, there is an urgent need to develop a dedicated mobile application. This initiative aims to improve user experience. The expected benefits include increased revenue through mobile sales, enhanced brand loyalty and customer engagement, and gaining a competitive edge in the mobile market by increasing customer satisfaction and capitalizing on the growing mobile market.

The project aims to achieve the following objectives:

- **Develop a Functional Prototype:** The development team to create a functional prototype of the mobile application within a three-month timeframe.
- **Intuitive User Interface (UI) Design:** The mobile application will feature an intuitive and user-friendly interface focusing on responsive design, efficient navigation, and visual appeal.
- **Seamless Synchronization Across Devices:** The mobile app will sync with the existing website, providing users with consistent access to their accounts and order history across both platforms, ultimately enhancing customer satisfaction.

With a dedicated mobile application, SmartMed aims to enhance the overall user experience with the key benefit which will be convenience by allowing customers to shop conveniently from their mobile devices. anytime and anywhere_ To provide real-time alerts for promotions, order updates, and personalized recommendations by including Push notifications and streamlining the checkout process for quicker purchases.

The project scope should include features to adapt the existing website to be mobile-responsive. This should be achieved by creating a standalone mobile app for iOS and Android. The primary stakeholders involved in the project are the Project Sponsor, Tan Sri. Hussin Jamal as the Founder and owner of SmartMed Sdn. Berhad. As the sponsor, Tan Sri Hussin Jamal provides strategic guidance and approves project milestones. The appointed project manager is Ts. Maream Sheikh Ismail will be responsible for project planning and execution and coordination, overseeing the development team, quality

assurance, and marketing efforts. The rest of the project team includes the development team to work alongside with the marketing team including the user interface (UI) and user experience (UX) Designers tasked with designing the mobile app interface, wireframes, and user flows, application developers who will be responsible for coding the application, integrating features, and ensuring functionality and the quality assurance (QA) specialists who will be responsible for comprehensive testing to identify and rectify any issues. While the marketing team and the content writers Who will create compelling product descriptions and promotional content, SEO Specialists who will optimize app content for search engines, graphic designers who will design app icons, banners, and marketing materials, and mobile applications specialists will promote the app through app stores and digital channels.

The project's proposed timeline is as follows:

- i. Design and Development Phase: 3 months
- ii. Testing and Quality Assurance: 1 month
- iii. Marketing and Launch: 2 months

Instructions: Refer to the SmarMed Business Case to answer the questions:

a) Develop a Project Charter for this project.

(15 marks)

b) Based on the information provided in the business case and the approved total budget of RM150,000, prepare a detailed project cost estimation derived from the identified tasks. Clearly show the calculation method used for each task.

(10marks)

(TOTAL: 25 Marks)

END OF EXAMINATION PAPER