



UNIVERSITI
TEKNOLOGI
PETRONAS

FINAL EXAMINATION MAY 2024 SEMESTER

COURSE : TAM5013 – IT PROJECT MANAGEMENT
DATE : 3 AUGUST 2024 (SATURDAY)
TIME : 2:30 PM – 6:30 PM (4 HOURS)

INSTRUCTIONS TO CANDIDATES

1. Answer **ALL** questions in the Answer Booklet.
2. Begin **EACH** answer on a new page in the Answer Booklet.
3. Indicate clearly answers that are cancelled, if any.
4. Where applicable, show clearly steps taken in arriving at the solutions and indicate **ALL** assumptions, if any.
5. **DO NOT** open this Question Booklet until instructed.

Note :

- i. There are **FIVE (5)** printed pages in this **double-sided** Question Booklet including the cover page .

1. a. Due to insufficient funds allocated for the project, your company decides to lease the equipment. After undergoing a careful selection, you have identified 3 main proposals from 3 different companies.

i. Analyse the suitable criteria to measure included with detail weight score and rating for each project.

[10 marks]

ii. Determine the weighted scores for each proposal and identify which proposal you would most consider for equipment leasing. Justify your answer.

[10 marks]

2. Ahmad Digital Ecom (ADE) is considering starting a data migration project to transfer the company's data from an on-premises legacy system to a modern cloud-based infrastructure. The objectives are to enhance data accessibility, improve system performance, and ensure better scalability. As the project manager, you are required to add additional resources to critical path tasks to reduce their duration to address the critical path issue, which may need approval from the project sponsor and stakeholders. Consider the Network Diagram Data for a Data Migration Project, in **TABLE Q2**. All duration estimates or estimated times are in weeks and the network proceeds from Node 1 to 9.

TABLE Q2: Network Diagram Data for a Data Migration Project

Activity	Initial Node	Final Node	Estimated Duration
A	1	2	2
B	2	3	2
C	2	4	3
D	2	5	4
E	3	6	2
F	4	6	7
G	5	7	6
H	6	8	2
I	6	7	5
J	7	8	1
K	8	9	2

- a. Recommend an Activity on Arrow (AOA) network diagram representing the project.
[10 marks]
- b. Formulate a plan that consists of **TWO (2)** methods to resolve the critical path issue, that aim is to solve the critical path dilemma of the project schedule.
[10 marks]
- c. Justify the differences between resource loading and resource leveling.
[5 marks]

3. Azman is deciding which of four projects to bid on as program manager. For Project1, the chance of winning is 50%-50% with estimated profit/impact \$120,00 and -\$50,000. Project2; chance of winning 30%,40%,30% with estimated profit/impact \$100,00, \$50,000, -\$60,000. Project3; chance of winning 70%,30% with estimated profit/impact \$20,000, -\$5,000. Project4; chance of winning 30%, 30%, 20%, 20% with estimated profit/impact \$40,000, \$30,000, \$20,000 and -\$50,000. Assume that all up-front investments are not recovered, so they are shown as negative profits.

a. Determine the EMV for each project. Write a few paragraphs explaining which projects Harry would bid on. Be sure to use the EMV information to justify your answer.

[8 marks]

b. Develop risk register based on answer in **part (a)**, in table format as shown in **TABLE Q2b**. You are required to list **SIX (6)** potential risk based on common risks categories.

TABLE Q2b: Risk Register

Risk ID	Risk Category	Risk Description	Likelihood	Impact	Response Strategy

[NOTE: 2 Low risk; 2 Medium risk; 2 High risk]

[12 marks]

c. Your answer in **part(b)** should include the specific tasks required for high and medium impact to implement each strategy, along with time and cost estimates for each.

TABLE Q2c: Response Strategy

Risk ID	Risk Description	Impact	Mitigation strategy	Tasks	Time and cost estimate

[10 marks]

4. **TABLE Q4** summarizes the information for a one-year Mobile health Project.

TABLE Q4: Mobile Health Project Summary Information

<i>Mobile Health Project</i>
Planned Value (PV) = RM 80,000
Earned Value (EV) = RM 60,000
Actual Cost (AC) = RM 40,000
Budget At Completion (BAC) = RM 180,000
Schedule Performance Index (SPI)
Cost Performance Index (CPI)

- a. Based on **Table Q4**, identify how is the project doing in terms of its schedule and budget. Justify your answer by showing all the relevant calculations.

[15 marks]

- b. By using the CPI to calculate the estimate at completion (EAC) of the project, determine the duration and the project performance.

[10 marks]

-END OF PAPER

