



Second Semester Examination  
2022/2023 Academic Session

Julai/Ogos 2023

**EPM 432 – Project Management  
(Pengurusan Projek)**

Duration: 3 hours  
(Masa: 3 jam)

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Please check that this examination paper consists of FIVE (5) pages of printed material before you begin the examination.

*[Sila pastikan bahawa kertas peperiksaan ini mengandungi LIMA (5) muka surat yang bercetak sebelum anda memulakan peperiksaan ini].*

**Instructions** : Answer **ALL FIVE (5)** questions.

**Arahan** : Jawab **KESEMUA LIMA (5)** soalan.

1. [a] Explain THREE (3) benefits of project management, and ONE (1) reason why is it important for organizations to implement effective project management practices. **(20 marks)**  
[b] Describe the FIVE (5) stages of the project management process, and explain the key activities involved in each stage. **(50 marks)**  
[c] Discuss how do organizational culture and structure impact project management. Suggest TWO (2) strategies that an organization can use to promote a culture of effective project management. **(30 marks)**
2. [a] Discuss FOUR (4) key factors that organizations should consider when selecting projects for their portfolio, and TWO(2) methods to ensure that the project selection aligns with their strategic goals and objectives. **(30 marks)**  
[b] Identify FOUR (4) key principles and concepts of risk management, and explain how can they be applied to project management? **(35 marks)**  
[c] Identify FIVE (5) key characteristics of successful project managers. Explain how these key characteristics can be developed and maintained. **(35 marks)**
3. [a] Explain the difference between normal and expedited costs, fixed and variable costs, and recurring or nonrecurring costs. Create a matrix to show the combination of these costs based on labor and material cost. **(30 marks)**  
[b] Provide ONE(1) example of project applying top-down budgeting method, and another (1) example applying bottom-up budgeting method. State ONE (1) advantage that each method over the other. **(40 marks)**  
[c] Draw a network diagram using activities on nodes (AOA) method using the information in Table 3[C].

Table 3[C]

Activity	Time (week)	Predecessor
A	8	-
B	4	A
C	5	B, F
D	12	A
E	8	D
F	4	D
G	9	E, F
H	12	G
I	6	C, G
J	5	I
K	9	H
L	12	J, K

(30 marks)

4. [a] Zarina is constructing a boat for the annual boat race and has identified eleven activities that are required to complete this important project. She calculated early and late start times, and early and late finish times but somehow lost certain information on her printout as in Table 4[a]. Use the remaining information to reconstruct the table for Zarina.

Table 4[a]

Activity	Predecessor	Duration	Early Start	Late Start	Early Finish	Late Finish
A	--	12			12	
B	A	20				
C	A	16				
D	B, E	11		42		
E	C		28			42
F	E	8	42		50	
G	D	17	53	53		
H	G		70			
I	G	9		72		
J	F	4				
K	H, I, J			81		91

(70 marks)

[b] Elaborate the THREE (3) principal methods for accelerating a project and discuss ONE (1) situation when the crashing method might fail.

(30 marks)

...4/-

5. [a] Based on Table 5, calculate the following:

- (i) Planned Value (PV)
- (ii) Earned Value (EV)
- (iii) Schedule Performance Index (SPI). Based on the calculated SPI, evaluate the project performance with respect to the project scheduling.
- (iv) Estimated Time to Completion (in number of months)
- (v) Cost Performance Index (CPI). Based on the calculated CPI, evaluate the project performance with respect to the budget.
- (vi) Estimated Cost to Completion (in MYR)

**(50 marks)**

Table 5: Earned Value Table (costs are in 100 MYR)

Activity	Jan	Feb	Mar	April	Plan	%C	Value
Staffing	8	7			15	100	15
Blueprint			4	6	10	80	8
Prototype			2	8	10	60	6
Design				3	3	33	1
Monthly Plan	8	7	6	17	Planned Value (PV)	$\Sigma$	Earned Value (EV)
Cumulative	8	15	21	38			
Monthly Actual	8	11	8	13			
Cumulative Actual	8	19	27		Cumulative Actual (AC)		

...5/-

[b] 50/50 rule and 0/100 rule are two methods to measure project progress and completion.

(i) Differentiate the rules and state ONE (1) reason to use each rule.

**(20 marks)**

(ii) Discuss your opinion on the best rule to be applied by a project manager for managing a project involving stakeholders who may not have time and expertise in the project. Justify your answer with TWO (2) factors that the project manager must be in control to ensure the success of the project.

**(30 marks)**

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