



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2021/2022

COURSE NAME	:	PROJECT MANAGEMENT
COURSE CODE	:	BIT 30403
PROGRAMME CODE	:	BIT
EXAMINATION DATE	:	JULY 2022
DURATION	:	3 HOURS
INSTRUCTION	:	<ol style="list-style-type: none">1. ANSWERS ALL QUESTIONS.2. THIS FINAL EXAMINATION IS AN ONLINE ASSESSMENT AND CONDUCTED VIA CLOSE BOOK.3. STUDENT ARE PROHIBITED TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK.

THIS QUESTION PAPER CONSISTS OF SIX (6) PAGES

Q1 (a) Describe **TWO (2)** factors that lead to cost overrun. (3marks)

(b) Explain how to reduce the cost overrun based on the answer Q1 (a). (3 marks)

Case Study:

As a project manager for a software house company, you received a project to develop new application to record information about Covid-19 Vaccine recipients in Malaysia. Existing software related provided include budget and functionalities. You are requested to submit a high level estimate for the new application in 4 days.

Figure Q1(c)

(c) Based on **Figure Q1 (c)**, determine the cost-estimation technique suitable for the task. Justify your answer. (4 marks)

Q2 Based on **Figure Q2** , answer **Q2 (a)** and **Q2 (b)**.

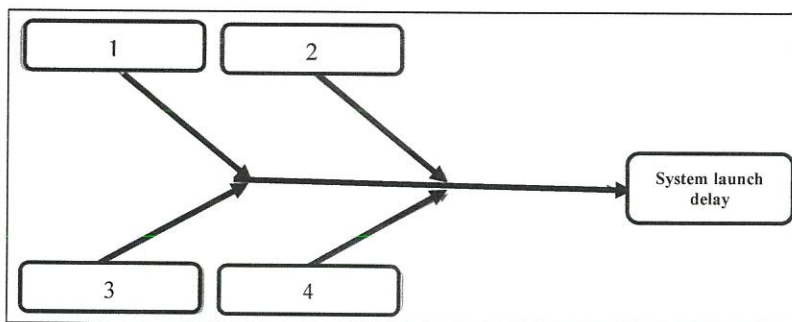


Figure Q2

(a) Based on **Figure Q2** above, identify **FOUR (4)** possible major causes for system launch delay. (4 marks)

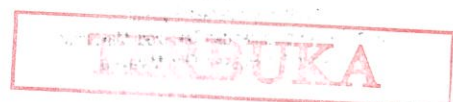
- (b) Based on your answer in **Q2(a)**, identify **FOUR(4)** the potential causes. (8 marks)

Q3 Based on **Table 1**, answer **Q3(a) – Q3(i)**

Table 1: List of task in development of verification system

Task	Predecessor	Optimistic Estimates (Days)	Most Likely Estimates (Days)	Pessimistic Estimates (Days)	No. of Staff	Cost per day (RM)
A1	None	4	5	8	2	2000
B1	A1	6	6	10	4	6000
C1	A1	5	8	10	2	6000
D1	B1, C1	4	5	8	8	4000
E1	B1, D1	3	4	6	2	2000
F1	D1, E1	5	6	10	4	4000
G1	C1	5	5	8	6	4000
H1	F1, G1	4	5	6	8	2000
I1	F1, H1	6	2	10	4	2000
J1	I1	3	5	8	4	6000

- (a) Determine expected duration in day for each activity using Program Evaluation and Review Technique (PERT). (10 marks)
- (b) Based on the answer in **Q3(a)** develop a network diagram using Activity on the Node (AON) technique. (4 marks)
- (c) Determine the critical path. (2 marks)



- (d) Define the shortest possible time needed to complete this project. (2 marks)
- (e) Answer **Q3(e)(i)-Q1(e)(iv)** based on the answer in **Q3(b)** and **Figure Q3**. Assume the start date of the project is 19 May 2021 and every Sunday is off days. Determine the early start date, late start date, early finish date, late finish date, slack/float for each of the following tasks.
- (i) Task B1 (5 marks)
 - (ii) Task E1 (5 marks)
 - (iii) Task G1 (5 marks)
 - (iv) Task J1 (5 marks)
- (f) Complete the summary of Project Performance Metrics in **Table 3** by using information given in **Table 1** and **Table 2**. (25 marks)

Table 2: Field Report at Day 20

Task	Actual % Complete	Incurred Cost (RM)
Start	-	-
A1	100	16000
B1	100	12000
C1	80	14000
D1	40	6000
E1	40	2000
F1	20	800
G1	0	0
H1	0	0
I1	0	0
J1	0	0
End	-	-



Table 3: Project Performance Metrics

Task	Earned Value	Cost Variance	Schedule Variance	Cost Performance Index	Schedule Performance Index
A1					
B1					
C1					
D1					
E1					
Cumulative					

- (g) Based on answer in **Q3 (b)**, illustrate a histogram of resource loading for staff usage. (5 marks)
- (h) Based on the answer in **Q3(g)**, propose a histogram of resource leveling for staff usage. (5 marks)
- (i) Based on the answer in **Q3(h)**, determine the number of resources required through the project. (5 marks)

-END OF QUESTIONS –

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FINAL EXAMINATION

SEMESTER / SESSION : SEM II 2021/2022
 COURSE NAME : PROJECT MANAGEMENT

PROGRAMME CODE : BIT
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January							April							July							October						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5		1	2	3	4	5	6		1	2	3	4	5	6			1	2	3	4	5
6	7	8	9	10	11	12	7	8	9	10	11	12	13	7	8	9	10	11	12	13	6	7	8	9	10	11	12
13	14	15	16	17	18	19	14	15	16	17	18	19	20	14	15	16	17	18	19	20	13	14	15	16	17	18	19
20	21	22	23	24	25	26	21	22	23	24	25	26	27	21	22	23	24	25	26	27	20	21	22	23	24	25	26
27	28	29	30	31			28	29	30					28	29	30	31				27	28	29	30	31		

February							May							August							November						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2				1	2	3	4					1	2	3						1	2
3	4	5	6	7	8	9	5	6	7	8	9	10	11	4	5	6	7	8	9	10	3	4	5	6	7	8	9
10	11	12	13	14	15	16	12	13	14	15	16	17	18	11	12	13	14	15	16	17	10	11	12	13	14	15	16
17	18	19	20	21	22	23	19	20	21	22	23	24	25	18	19	20	21	22	23	24	17	18	19	20	21	22	23
24	25	26	27	28			26	27	28	29	30	31		25	26	27	28	29	30	31	24	25	26	27	28	29	30

March							June							September							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2						1	1	2	3	4	5	6	7	1	2	3	4	5	6	7	
3	4	5	6	7	8	9	2	3	4	5	6	7	8	8	9	10	11	12	13	14	8	9	10	11	12	13	14
10	11	12	13	14	15	16	9	10	11	12	13	14	15	15	16	17	18	19	20	21	15	16	17	18	19	20	21
17	18	19	20	21	22	23	16	17	18	19	20	21	22	22	23	24	25	26	27	28	22	23	24	25	26	27	28
24	25	26	27	28	29	30	23	24	25	26	27	28	29	29	30						29	30	31				

Figure Q3

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