



# UTHM

Universiti Tun Hussein Onn Malaysia

## UNIVERSITI TUN HUSSEIN ONN MALAYSIA

### FINAL EXAMINATION SEMESTER II SESSION 2017/2018

COURSE NAME : PROJECT MANAGEMENT  
COURSE CODE : BIT 30403  
PROGRAMME CODE : BIT  
EXAMINATION DATE : JUNE / JULY 2018  
DURATION : 3 HOURS  
INSTRUCTION : A) ANSWER ALL QUESTIONS  
B) PLEASE WRITE YOUR ANSWERS  
IN THIS QUESTION BOOKLET

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THIS QUESTION PAPER CONSISTS OF FIFTEEN (15) PAGES

**Instruction: Circle the BEST answer for the following questions.**

**Q1** Procurement planning is the process of identifying which project needs can best be met by procuring products or services outside the project organization. When should this effort be accomplished?

- A. After contract negotiation.
- B. During the scope definition effort.
- C. During the cost definition effort.
- D. While creating the work breakdown structure.

(1.5 marks)

**Q2** Outputs of procurement planning include

- A. Make-or-buy analysis, expert judgment, contract type selection, contract.
- B. Scope statement, Correspondence, contract file, contract.
- C. Procurement management plan and statement of work.
- D. Procurement management plan and contract changes.

(1.5 marks)

**Q3** As the leader of a project team, the project manager may be required to assess the competencies of his or her team members. Occasionally, some weaknesses or areas for improvement will be identified. The project manager should:

- A. Communicate those weaknesses and establish a performance improvement program.
- B. Remove any team members who have demonstrated weaknesses in critical knowledge areas.
- C. Hire additional resources to compensate for weak areas.
- D. Wait for the team members to fail in an assignment to justify termination.

(1.5 marks)

**Q4** Which of the following is a tool or technique used in integrated change control?

- A. Organizational procedures.
- B. Performance measurement.
- C. Performance reports.
- D. Project plan updates.



(1.5 marks)

- Q5** Brandi is a project manager on a software project. About halfway through development, her team found that they had not estimated enough time for some of the technical work they needed to do. She requested that the new work be added to the scope statement and that the time to do the work be added to the schedule. The change control board approved her change. What's her next step?
- A. Update the scope and schedule baselines to reflect the approved change.
  - B. Start doing the work.
  - C. Gather performance metrics on the team's work so far.
  - D. Perform Quality Assurance.

(1.5 marks)

- Q6** One way to shorten your project schedule is to assign three developers to each activity in the project design phase instead of two. Although you are considering this approach, your design phase project team would double in size as a result. This approach tends to –
- A. reduce productivity.
  - B. increase productivity.
  - C. reduce the need for quality auditing, thereby reducing overall resource costs.
  - D. improve production proportionately more than the increase in resources.

(1.5 marks)

- Q7** In the first attempt in resource leveling the project schedule, what would you expect to occur?
- A. For the number of required resources to increase during certain time periods of the project.
  - B. For the number of required resources to decrease during certain time periods of the project.
  - C. For the overall project duration to increase.
  - D. All of the above.

(1.5 marks)

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- Q8** You are the project manager for a railroad construction project. Your sponsor has asked you for a forecast for the cost of project completion. The project has a total budget of RM 80,000 and CPI of .95. The project has spent RM 25,000 of its budget so far. How much more money do you plan to spend on the project?
- A. RM 59,210.
  - B. RM 80,000.
  - C. RM 84,210.
  - D. RM 109,210.

(1.5 marks)

- Q9** Your lead software engineer estimates that a work package will most likely require 50 weeks to complete. It could be completed in 40 weeks if all goes well, but it could take 180 weeks in the worst case. What is the PERT estimate for the expected duration of the work package?
- A. 65 weeks.
  - B. 70 weeks.
  - C. 75 weeks.
  - D. 80 weeks.

(1.5 marks)

- Q10** Which one of the following is the **BEST** definition of quality?
- A. A product made of very expensive materials.
  - B. A product made with a lot of care by the team who built it.
  - C. A product that satisfies the requirements of the people who pay for it.
  - D. A product that passes all of its tests.

(1.5 marks)

- Q11** The most common communication problem during negotiations is that
- A. one side may try to confuse the other side.
  - B. one side may be too busy thinking about what to say next to hear what is being said.
  - C. each side may misinterpret what the other side has said.
  - D. each side may give upon the other side.

(1.5 marks)

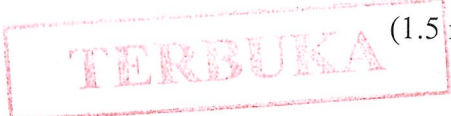
A red rectangular stamp with the word "TERBUKA" in capital letters inside.

- Q12** Activity A has a duration of 3 days and begins on the morning of Monday the 4th. The successor activity, B, has a finish-to-start relationship with A. The finish-to-start relationship has 3 days of lag, and activity B has a duration of 4 days. Sunday is a no workday. What can be determined from these data?
- A. Calendar time between the start of A to the finish of B is 7 days.
  - B. Calendar time between the start of A to the finish of B is 11 days.
  - C. Calendar time between the start of A to the finish of B is 12 days.
  - D. Calendar time between the start of A to the finish of B is 14 days.
- (1.5 marks)

- Q13** You are currently performing the Select Sellers process. You are considering two bids from companies on your qualified sellers list. Your project is on a tight budget, and you have been instructed by senior management to consider the cost over any other criteria. You used the company that submitted the lower bid on a previous project, and you were not happy with their work. The company that submitted the higher bid has a reputation for treating their clients well, flying project managers' first class and giving them accommodations in five-star hotels. What is the **BEST** way to handle this situation?
- A. Select the company with the lowest bid.
  - B. Give the manager at the company with the higher bid information that will allow him to tailor his bid so that it better meets your needs.
  - C. Rewrite the RFP so that the company with the lowest bid is excluded.
  - D. Select the company with the higher bid.
- (1.5 marks)

- Q14** Your project files need to be sent via overnight mail to your company's central office. If the files do not arrive tomorrow, your company will not be able to deliver the project on time and you will lose an important client. The deadline cannot be negotiated. The team worked right up to the last minute in order to give you the files. Due to a traffic jam, you are running late and the overnight delivery company will close in five minutes. You can only make it if you drive over the speed limit. Which one of the following is correct?
- A. You must drive over the speed limit so that you can save the client relationship.
  - B. You must stay within the speed limit, even if you lose the client.
  - C. You must negotiate a new deadline.
  - D. You can use the earned value metrics to show that the SPI is over 1, meaning the project is not late.

(1.5 marks)

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**Q15** You are managing a software project. You are partway through the project, and your team has just delivered a preliminary version of part of the software. You are holding a weekly status meeting, when one of the team members points out that an important stakeholder is running into a problem with one of the features of the current software. The team member feels that there is a risk that the stakeholder will ask for a change in that feature, even though that change would be out of scope of the current release - and if the stakeholder requests that change, there is a high probability that the change control board would approve the change. What is the **BEST** action to take next?

- A. Mitigate the risk by asking a team member to get familiar with the feature of the software that might be changed.
- B. Schedule a meeting with the stakeholder to discuss the risk.
- C. Add the risk to the risk register and gather information about its probability and impact.
- D. Add the risk to the issue log and revisit it when there is more information.

(1.5 marks)

**Q16** You are managing a software engineering project. Your team is having trouble completing their object design tasks. One of your team members tells you that her friend at another company sent her a copy of a software package they own that will help your team meet its deadline. Without that software package, your project will probably be late. But you don't have enough money in the budget to purchase it. What is the **BEST** way to handle this situation?

- A. Tell the team member not to use the software, and accept that the project will be late.
- B. Use the software so that your project comes in on time.
- C. Purchase the software so that you have a licensed copy.
- D. Tell the team member that you need to maintain plausible deniability, so she should just do what's necessary and not tell you about it.

(1.5 marks)

**Q17** You have been hired by a large consulting firm to evaluate a software project for them. You have access to the Cost Performance Index (CPI) and Earned Value (EV) for the project, but not the Actual Cost (AC). The CPI is 0.92, and the EV is RM 172,500. How much money has actually been spent on the project?

- A. RM 158,700.
- B. RM 172,500.
- C. RM 187,500.
- D. There is not enough information to calculate the actual cost.

(1.5 marks)

- Q18** In your last project status meeting, you had 15 team members. The meeting was very disorderly - there were too many sidebar conversations and arguments. As a result, you achieved nothing substantial from the meeting. In order to better regulate the meeting next time, you should
- A. decrease the number of people in one meeting.
  - B. publish a meeting agenda.
  - C. ensure that you control the channels of communication.
  - D. give incentives to team members for conforming to desired norms of the meeting.

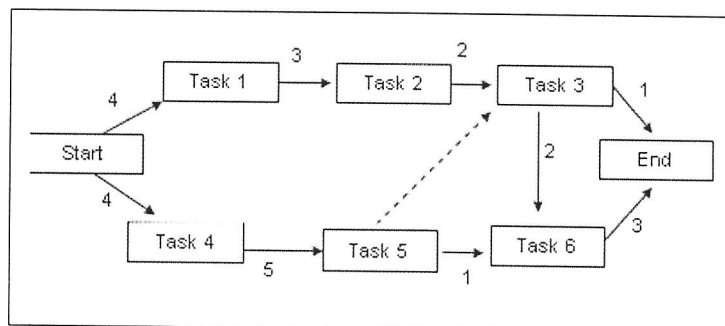
(1.5 marks)

- Q19** You are managing a project with a total budget of RM 450,000. According to the schedule, your team should have completed 45% of the work by now. But at the latest status meeting, the team only reported that 40% of the work has actually been completed. The team has spent RM 165,000 so far on the project. How would you **BEST** describe this project?

- A. The project is ahead of schedule and within its budget.
- B. The project is behind schedule and within its budget.
- C. The project is ahead of schedule and over its budget.
- D. The project is behind schedule and over its budget.

(1.5 marks)

- Q20** Please refer to **Figure Q20** (all units are in days).



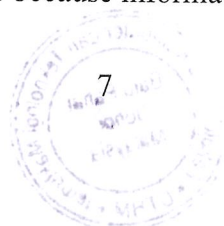
**Figure Q20**

What is the project float if management wants to do this project within 10 days?

- A. 0 days.
- B. - 4 days.
- C. 2 days.
- D. Cannot be determined because information in the question is inconsistent.

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(1.5 marks)



Q21 Answer Q21(a) – Q21(d) based on Table 1.

**Table 1:** Task of Planning an e-Commerce Project

Task	Initial Node	Final Node	Estimate Duration	No. of Staff
A	1	2	10	2
B	1	3	12	4
C	1	4	8	6
D	2	3	4	6
E	2	5	8	4
F	3	4	6	2
G	4	5	4	6
H	4	6	8	4
I	5	6	6	2
J	5	8	12	4
K	6	7	8	6
L	7	8	10	2

- (a) Draw the Arrow on Activity (AOA) network diagram representing the project.

(6 marks)

**Answer:**

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- (b) Based on answer **Q21(a)**, identify the critical path. Justify your answer. (4 marks)

**Answer:**

- (c) Assume the start date of the project is 19 May 2018 and every day is working days. Determine the early start date, late start date, early finish date, late finish date, slack/float for each task. Refer to **Figure Q21**. (18 marks)

**Answer:**

Task	Early Start Date	Late Start Date	Early Finish Date	Late Finish Date	Slack/Float
A					
B					
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					



- (d) What is the shortest possible time (in days) needed to complete this project?

(3.5 marks)

**Answer:**

**Q22** Answer **Q22(a) – Q22(c)** based on scenario in **Figure Q22**.

You are developing four modules for a system. You estimate each module has same difficulty, labour costs, and completion time. You also estimate that the project will take 12 months. The budget is based on phase below.

Initiation	: RM 8,000
Planning	: RM 9,000
Design	: RM 22,000
Development	: RM 34,000
Testing	: RM 13,000
Roll out	: RM 14,000

At the end of 5 months, you are asked to prepare an Earned Value Chart in order to determine how the project progress. You determine at the end of month 5, total costs incurred are RM 40,000 and 65 percent of the project is completed.

**Figure Q22**

- (a) Calculate
  - (i) Cost Variance

(3 marks)

**Answer:**

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(ii) Schedule Variance

(3 marks)

**Answer:**

(iii) Cost Performance Index (CPI)

(3 marks)

**Answer:**

(iv) Schedule Performance Index (SPI)

(3 marks)

**Answer:**

(v) Estimate at Completion (EAC)

(3 marks)

**Answer:**

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- (b) Based on the answer **Q22(a)**, sketch an earned value chart.

(10 marks)

**Answer:**

- (c) Based on your chart in **Q22(b)**, explain how it can be used to control costs and measure project performance.

(3.5 marks)

**Answer:**

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**Q23** Answer Q23(a) – Q23(b) based on **Table 2**.

**Table 2:** Summarized four projects to bid on

Project	Chance of Outcome	Estimated Profits
Project 1	50 percent	RM 120,000
	50 percent	- RM 50,000
Project 2	30 percent	RM 100,000
	40 percent	RM 50,000
	30 percent	- RM 60,000
Project 3	70 percent	RM 20,000
	30 percent	- RM 5,000
Project 4	30 percent	RM 40,000
	30 percent	RM 30,000
	20 percent	RM 20,000
	20 percent	- RM 5,000

- (a) Draw a diagram and calculate the Expected Monetary Value (EMV) for each project.

(5 marks)

**Answer:**

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- (b) Write one paragraph of justification which project you would bid on. Use the EMV information to justify your answer.

(5 marks)

**Answer:**

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**-END OF QUESTIONS-**



**FINAL EXAMINATION**

SEMESTER/SESSION : SEM II/2017/2018

PROGRAM: 3 BIT

COURSE NAME : PROJECT MANAGEMENT

COURSE CODE: BIT 30403

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

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

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

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

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

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

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

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

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

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

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

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

Figure Q21

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