



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2016/2017**



COURSE NAME : PROJECT MANAGEMENT
COURSE CODE : BIT 30403
PROGRAMME CODE : BIT
EXAMINATION DATE : JUNE 2017
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **SIXTEEN (16)** PAGES

SECTION A

Instruction: Choose the BEST answer for each of the following questions.

Q1 Which 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)

Q2 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 Request for Proposal (RFP) so that the company with the lowest bid is excluded.
- D. Select the company with the higher bid.

(1.5 marks)

Q3 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)

- Q4** When you need to get staff from the manager of the Quality Assurance (QA) department, he suggests a few test engineers with performance problems for your team. Which is the **BEST** response to this situation?
- A. Stop talking to the QA manager.
 - B. Call a meeting with the QA manager to try to figure out why he suggested those candidates and how the two of you can work together to find team members with suitable skills and interests for your team.
 - C. Tell the QA manager that the staffing problems are really no big deal, and you're sure that the two of you can eventually figure out the right answer together.
 - D. Tell the manager that you know which team members you want for your team and he needs to give them to you.

(1.5 marks)

- Q5** Rekha is a project manager on a network installation project. Late in the project, her client demands a big change. She assesses the impact of the change and tells the client how much time and money it will cost. But the client says that he doesn't have the time or budget to allow the change. What's the **BEST** way for Rekha to handle this situation?

- A. Have her senior managers meet with the client to explain the situation.
- B. Hold a meeting with the client to figure out why he's asking for the change.
- C. Do nothing; she's the project manager, so she sets the rules.
- D. Have the client find more money for the budget.

(1.5 marks)

- Q6** 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's 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.

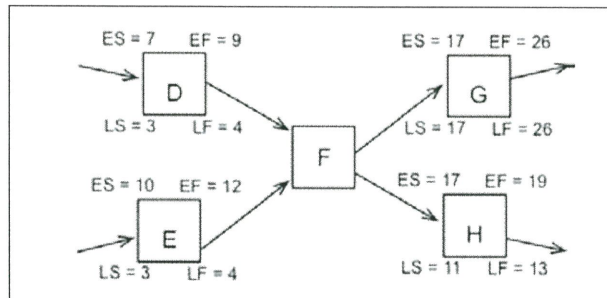
(1.5 marks)

Q7 Your client has terminated your project before it is complete. Which of the following is **TRUE**?

- A. You must stop all work and release the team immediately.
- B. You must work with the team to document the lessons learned.
- C. You must keep the team working on the project to give your senior management time to talk to the client.
- D. You must update the project management plan to reflect this change.

(1.5 marks)

Q8 Given this portion of the network diagram to the right, what's the Late Finish (LF) of activity F?



- A. 10
- B. 11
- C. 16
- D. 17



(1.5 marks)

Q9 You are managing a software engineering project, when two team members come to you with a conflict. The lead developer has identified an important project risk: you have a subcontractor that may not deliver on time. Another developer doesn't believe that the risk is likely to happen; however, you consult the lessons learned from previous projects and discover that subcontractors failed to deliver their work on two previous projects. The lead developer suggests that you have two team members take three weeks to research the component being built by the subcontractor, and come up some initial work that you can fall back on in case that subcontractor does not deliver. You decide to follow the lead developer's advice over the objections of the other team member. Which of the following **BEST** describes this scenario?

- A. Transference
- B. Mitigation
- C. Avoidance
- D. Acceptance

(1.5 marks)

Q10 You are managing a construction project to install new door frames in an office building. You planned on spending \$12,500 on the project, but your costs are higher than expected, and now you're afraid that your project is spending too much money. What number tells you the difference between the amount of money you planned on spending and what you've actually spent so far on the project?

- A. Actual Cost (AC)
- B. Schedule Variance (SV)
- C. Cost Variance (CV)
- D. Variance at Completion (VAC)

(1.5 marks)

Q11 Your company's quality assurance department has performed a quality audit on your project. They have found that your team has implemented something inefficiently, and that could lead to defects. What's the **NEXT** thing that should happen on your project?

- A. You work with the quality department to implement a change to the way your team does their work.
- B. You document recommended corrective actions and submit them to the change control board.
- C. You add the results of the audit to the lessons learned.
- D. You meet with the manager of the quality assurance department to figure out the root cause of the problem.

(1.5 marks)

TERBUKA

Q12 You are managing a project with a total budget of \$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 \$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)

- Q13** What is the order of the Procurement Management processes?
- A. Plan Purchases and Acquisitions, Plan Contracting, Request Seller Responses, Select Sellers, Contract Administration, Contract Closure.
 - B. Plan Purchases and Acquisitions, Plan Contracting, Select Sellers, Request Seller Responses, Contract Administration, Contract Closure.
 - C. Plan Purchases and Acquisitions, Plan Contracting, Contract Administration, Request Seller Responses, Select Sellers, Contract Closure.
 - D. Plan Contracting, Plan Purchases and Acquisitions, Request Seller Responses, Select Sellers, Contract Administration, Contract Closure.
- (1.5 marks)

- Q14** You are the project manager on a software project that is planning out various approaches to technical work. There's a 20% chance that a component you are going to license will be difficult to integrate and cost \$3000 in rework and delays. There's also a 40% chance that the component will save \$10,000 in time and effort that would have been used to build the component from scratch. What's the Expected Monetary Value (EMV) for these two possibilities?

- A. \$13,000
- B. \$7,000
- C. \$3,400
- D. -\$600

TERBUKA

(1.5 marks)

- Q15** Mike is a project manager for an IT technology implementation project. He is using an Ishikawa diagram to figure out what could cause potential risks on his project. Which process is he doing?
- A. Risk Identification
 - B. Qualitative Analysis
 - C. Quality Control
 - D. Risk Response Planning

(1.5 marks)

Q16 You are managing a project with an Earned Value (EV) of \$15,000, Plan Value (PV) of \$12,000 and Actual Cost (AC) of \$11,000. 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)

Q17 Two of your project team members approach you with a conflict that they are having with each other over the technical approach to their work. One of the two people is very aggressive, and tries to get you to make a decision quickly. The other team member is quiet, and seems less willing to talk about the issue. The conflict is starting to cause delays, and you need to reach a decision quickly. What's the **BEST** approach to solving this conflict?

- A. Tell the team members that they need to work this out quickly, because otherwise the project could face delays.
- B. Since it's a technical problem, tell the team members that they should take it to the functional manager.
- C. Confront the issue, even though one team member is hesitant.
- D. Escalate the issue to your manager.

(1.5 marks)

Q18 You've 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 .92, and the EV is \$172,500. How much money has actually been spent on the project?

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

(1.5 marks)

TERBUKA

Q19 Your project team has completed the project work. All of the following must be done before the project can be closed **EXCEPT**:

- A. Ensure that the schedule baseline has been updated.
- B. Get formal acceptance of the deliverables from the customer.
- C. Make sure the scope of the project was completed.
- D. Verify that the product acceptance criteria have been met.

(1.5 marks)

Q20 Which of the following **BEST** describes the triple constraints?

- A. Cost, schedule, and quality.
- B. Cost, resources, and schedule.
- C. Cost, schedule, and scope.
- D. Cost, schedule, and product.

(1.5 marks)

TERBUKA

Faint, illegible text and a signature, likely a watermark or stamp.

SECTION B

Instruction: Answer ALL questions.

Q21 Table 1 shows all the Work Package (WP) of planning an e-commerce project.

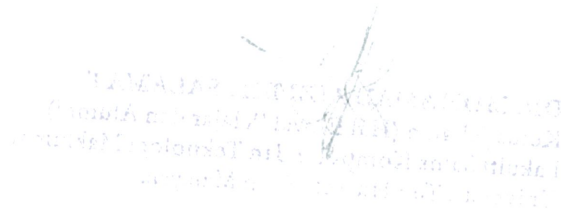
Table 1: List of Work Package

WP	Description	Duration	Predecessor
A	High level analysis	15 days	–
B	Selection of hardware platform	1 week	A
C	Installation the hardware	5 days	A
D	Detailed analysis of core modules	4 days	A
E	Detailed analysis of supporting modules	5 days	B
F	Programming of core modules	2 days	D
G	Programming of supporting modules	10 days	E
H	Quality assurance of core modules	9 days	F
I	Quality assurance of supporting modules	1 Week	C, G, H

- (a) Create a network diagram for **Table 1** using Precedence Diagramming Method (PDM).

(10 marks)

Answer:



- (b) Based on answer **Q21(a)**, identify the critical path. Justify your answer. (2.5 marks)

Answer:

- (c) Assume the start date of the project is 1stAugust 2016 and all day are working days. Determine the early start date, late start date, early finish date, late finish date, slack/float for each WP. Refer to **Figure Q21**. (22.5 marks)

Answer:

WP	Early Start Date	Late Start Date	Early Finish Date	Late Finish Date	Slack/Float
A					
B					
C					
D					
E					
F					
G					
H					
I					

TERBUKA

Q22 Table 2 shows all the activities of planning an e-transportation project.

Table 2: List of Activities

Activity	Predecessor	Duration (Month)	Cost per month (RM)
A	-	2	3000
B	A	3	4000
C	B	3	4000
D	B	2	2000
E	D	3	1000

Field Report at end of month 7		
Activity	Actual % Complete	Incurred Cost (RM)
A	100	6000
B	100	14000
C	33	5000
D	50	2000
E	0	0

(a) Complete the table:

(9 marks)

Activity	Actual Cost of Work Performed (ACWP)	Budgeted Cost of Worked Performed (BCWP)	Budgeted Cost for Worked Schedule (BCWS)
A			
B			
C			
D			
E			
TOTAL			

TERBUKA

(b) Based on the answer **Q22(a)**, calculate:

(i) Cost Variance (CV) for whole activity.

(2 marks)

Answer:

(ii) Schedule Variance (SV) for whole activity.

(2 marks)

Answer:

(iii) Cost Performance Index (CPI) for whole activity.

(2 marks)

Answer:

TERBUKA

(iv) Schedule Performance Index (SPI) for whole activity.

(2 marks)

Answer:



- (c) Based on the answer in **Q22(b)**, state the conclusions in term of time and cost in 7 months. (2 marks)

Answer:

- (d) Based on the answer in **Q22(c)**, explain an appropriate action should be taken. (2 marks)

Answer:

Q23 **Figure Q23** shows an e-book project with activities A, B, C and its duration. Assume activity A has 2 workers, B has 4 workers and C has 2 workers.

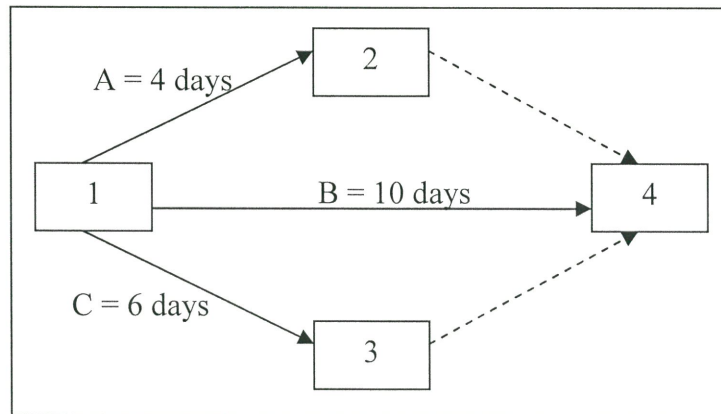


Figure Q23

TERBUKA

Faint, illegible text and a signature stamp are visible at the bottom of the page.

- a) Illustrate a histogram of resource leveling for resource usage
 - i) if all activities start on day one.

(5 marks)

Answer:

TERBUKA

- ii) if activity C is delayed 4 days.

(5 marks)

Answer:

Faint, illegible text and a signature stamp at the bottom of the page.

FINAL EXAMINATION

SEMESTER/SESSION : SEM II/2016/2017
 COURSE NAME : PROJECT MANAGEMENT

PROGRAMME : 3 BIT
 COURSE CODE: BIT 30403

2016

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

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

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

Jimsgraphix.com © 2016

FIGURE Q21



[Faint, illegible text, possibly a signature or stamp]