



UNIVERSITY COLLEGE TATI (UC TATI)

FINAL EXAMINATION QUESTION BOOKLET

COURSE CODE	: BME 4093
COURSE	: PROJECT MANAGEMENT
SEMESTER/SESSION	: 2-2023/2024
DURATION	: 3 HOURS

Instructions:

1. This booklet contains 5 questions. Answer **ALL** questions.
2. All answers should be written in answer booklet.
3. Write legibly and draw sketches wherever required.
4. If in doubt, raise your hands and ask the invigilator.

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO**

**THIS BOOKLET CONTAINS 7 PRINTED PAGES INCLUDING COVER PAGE**

## PROJECT MANAGEMENT (BME 4093)

Answer ALL questions.

**QUESTION 1**

A work breakdown structure (WBS) breaks down the project into smaller components to organize and understand its scope, while a project network is a flowchart or diagram that depicts the sequence and dependencies of project activities for planning and scheduling purposes. The WBS focuses on breaking down the work, while the project network focuses on the sequencing and interrelationships of activities.

- a) **Illustrate how** a work breakdown structure (WBS) for manufacturing a custom order of a smartphone and **determine** cost estimation by using apportion method. (8 marks)
- b) By using WBS information in a), **designate** network information in Table 1. Consider forward and backward pass, **calculate** how many days will the project takes. Then, **identify** its critical path. **Analyse** your answer. (12 marks)

Table 1: Custom Order of Smartphone's Project

ID	Description	Predecessor	Time
A			
B			
C			
D			
E			
F			
G			
H			

**QUESTION 2**

Project network times become a schedule only when resources are assigned. Resources are limited in terms of quantity or availability. Activities are scheduled using rules-of-thumb called heuristics. Figure 1 displays the current resource schedule network for the activity.

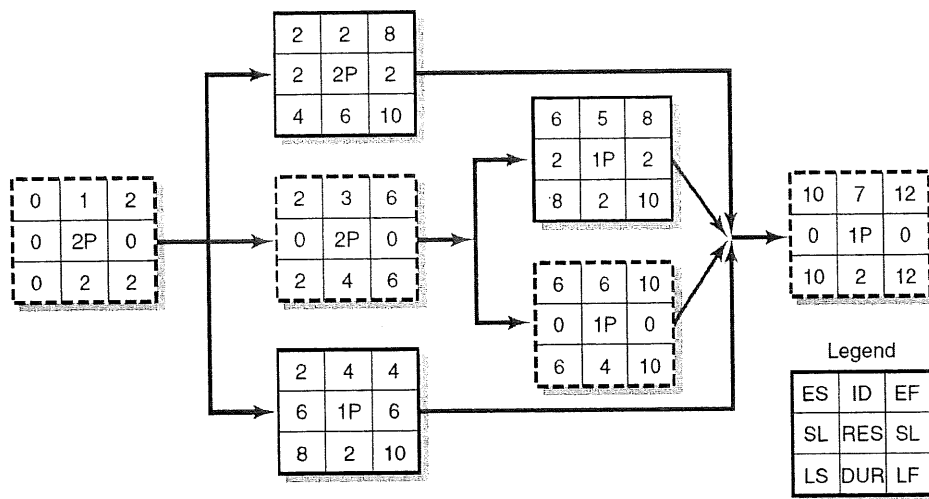


Figure 1: Current Resource Schedule Network

- a) **Predict** what are “rules-of-thumb” focus on. (3 marks)
  
- b) Referring to Figure 1 and Appendix 1,
  - i. **Illustrate** a resource-constraint schedule. (12 marks)
  - ii. **Determine** a new resource schedule network. (5 marks)

**QUESTION 3**

Risk management aims to identify and address potential and unexpected challenges that may arise during project implementation. By employing systematic approaches such as risk identification, analysis, and response planning, project teams can effectively minimize the negative impacts of risks, enhance project outcomes, and ensure the successful execution and delivery of the project.

- a) **Differentiate** between mitigating risk, avoiding a risk, transferring risk and retaining risk. (8 marks)
  
- b) UC TATI will hold a “self-development camp” project for engineering technology students next month. Any possible risks, impact of risks and its contingency plans must be considered. **Identify** four (4) potential risks of “self-development camp” project, **evaluate** its impact of risks and then **designate** contingency plan to manage those potential risks. (12 marks)

**QUESTION 4**

The way team members successfully adapt to changes and navigate risks, effortlessly complete new tasks, and cultivate strong relationships both within the team and across the organization are examples of positive leadership and teamwork. These qualities can influence team dynamics, foster a collaborative and supportive environment, and ultimately contribute to the team's success in achieving project objectives.

- a) **Identify** challenges to manage a virtual project team. (4 marks)
- b) You are managing the construction of a shopping mall in Malaysia. The project is going well, except for a delay in the delivery of steel beams, which were expected on January 15th but arrived on January 17th. The construction manager asks if you would backdate the acceptance form to January 15th to avoid impacting the team's performance evaluation and bonuses. He promises that the team will make up for the delay by working efficiently on other project tasks. What would you do and why? How would you respond to this situation and what factors would influence your decision? **Conclude** your answer by giving relevant justification.

(16 Marks)

## PROJECT MANAGEMENT (BME 4093)

**QUESTION 5**

Techtronix Sdn Bhd (Techtronix) is a Malaysian corporation engaged in the sale, service, and marketing of its brand of high-tech consumer electronics. Techtronix is currently considering the enhancement of two distinct smart television initiatives. Techtronix anticipates a minimum 30 percent rate of return based on their historical performance. In the foreseeable future, financial analysts project that inflation will remain constant at 5 percent.

- a) **Identify** what kind of project management structure you would recommend Techtronix use for their research and development (R&D) team. **Evaluate** your answer. (5 marks)
- b) You are head of project team at Techtronix. Your team is considering two different projects, Smart TV Interface Upgrade (STIU) Project and Smart TV Voice Control Integration (STVCI) Project. Given the following information for each project, which one should be Techtronix's first priority? Should Techtronix funds any of the other projects? If so, what should be the order of priority based on return of investment? By using suitable financial models of selection criteria, **determine** Techtronix's priority. (15 marks)

Table 2: STIU Project

Year	Investment	Revenue Stream
0	RM 650,000	RM 0
1		RM 650,000
2		RM 70,000
3		RM 21,000
4		RM 13,000
5		RM 9,000

Table 3: STVCI Project

Year	Investment	Revenue Stream
0	RM 403,000	RM 0
1		RM 350,000
2		RM 199,000
3		RM 83,000
4		RM 25,000
5		RM 10,000



