



UNIVERSITI KUALA LUMPUR
MALAYSIAN INSTITUTE OF CHEMICAL AND BIO-ENGINEERING TECHNOLOGY

FINAL EXAMINATION
OCTOBER 2025 SEMESTER

COURSE CODE : CJB40403
COURSE TITLE : MANAGEMENT FOR CHEMICAL ENGINEERING TECHNOLOGIST
PROGRAMME NAME : BACHELOR OF CHEMICAL ENGINEERING TECHNOLOGY
(PROCESS) WITH HONOURS
DATE : 25 JANUARY 2026
TIME : 9:00AM - 12:00PM
DURATION : 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given in the question paper CAREFULLY.
2. This question paper is printed on both sides of the paper.
3. This question paper consist of TWO sections.
4. Answer ALL questions for Section A.
5. Section B consist of four questions. Answer THREE (3) questions only.
6. Please write your answer on the answer booklet provided.
7. Please answer all questions in English only.
8. Please answer MCQ/EMQ questions using OMR sheet. ☐ *Tick if applicable*
9. Refer to the attached Formula/ Appendies. ☐ *Tick if applicable*

THERE ARE 16 PAGES OF QUESTIONS INCLUDING THIS PAGE

SECTION A (Total: 40 marks)

Answer ALL questions.

Please use the answer booklet provided.

1. A manager's inherent right to issue orders and the expectation that those orders will be obeyed is termed:
 - A. Authority
 - B. Span of Control
 - C. Responsibility
 - D. Power

2. The framework used by managers to divide, assign, and coordinate work within an institution is best defined as:
 - A. Chain of Command
 - B. Work Specialization
 - C. Organization Structure
 - D. Organization Design

3. Distinguish the concept of "development" from "training" by selecting the correct statement.
 - A. Development is solely responsible for determining pay structures.
 - B. Development involves changing attitudes but not skills.
 - C. Development usually means acquiring skills for future work
 - D. Development focuses on fixing current skill deficiencies.

4. The term "Reliability" in the context of HR selection tools refers to:
 - A. The prior knowledge an interviewer has about an applicant.
 - B. The degree to which a selection tool measures the same thing consistently.
 - C. The relationship between the selection tool and the appropriate criterion.
 - D. The ability of a candidate to perform keyboarding tasks.
5. Critics of formal planning often argue that it leads to this negative outcome.
 - A. It places too much emphasis on intuition and creativity.
 - B. It creates rigidity by locking units into specific goals.
 - C. It focuses too heavily on tomorrow's survival rather than today's competition.
 - D. It encourages excessive innovation in stable markets.
6. The philosophy developed at Motorola which utilizes statistical models to "design, measure, analyze, and control the input side of a production process" is called:
 - A. Benchmarking.
 - B. Management by Objectives.
 - C. SWOT Analysis.
 - D. Six Sigma.
7. Differentiate the primary focus of the ISO 14000 series from the ISO 9000 series.
 - A. ISO 14000 addresses environmental management .
 - B. ISO 14000 addresses occupational health and safety.
 - C. ISO 14000 addresses financial accounting standards.
 - D. ISO 14000 addresses quality management system.

8. Select the statement that accurately describes the primary activities involved in the planning function.
 - A. Monitoring performance and correcting deviations.
 - B. Designing the organizational structure and assigning tasks.
 - C. Motivating employees and resolving conflicts.
 - D. Defining goals, establishing strategy, and developing plan hierarchies .

9. The Contingency Management view asserts that:
 - A. Organizations in stable environments should always choose an organic structure.
 - B. Organizations in stable environments should always choose an organic structure.
 - C. There is one best way to organize regardless of the environment.
 - D. Organizational structure depends on the environment in which an organization operates.

10. Douglas McGregor's "Theory X" characterizes the average employee as someone who:
 - A. Possesses imagination and intellect.
 - B. Will do what is good for the organization if given the chance.
 - C. Is capable of self-direction and self-control.
 - D. Dislikes work and will try to do as little as possible.

11. An organization where decision-making authority is pushed down to the lower levels of the hierarchy is considered:
 - A. Formalized
 - B. Decentralized
 - C. Mechanistic
 - D. Centralized

12. A subordinate following a manager's orders solely due to admiration, identification, and respect for that manager is responding to:
- A. Referent Power
 - B. Legitimate Power
 - C. Reward Power
 - D. Coercive Power
13. Social forces influencing organizations and management practices are best described as
- A. The development of standard operating procedures for machinery.
 - B. Aspects of a culture that guide and influence relationships among people.
 - C. The availability, production, and distribution of resources.
 - D. The influence of political and legal institutions on people.
14. Contemporary organizations typically exhibit this characteristic, contrasting with the rule-oriented nature of traditional organizations.
- A. Command-oriented
 - B. Flexible
 - C. Inflexible
 - D. Individual-oriented
15. Defining goals, establishing strategies to achieve those goals, and developing plans to integrate activities describes this management function.
- A. Planning
 - B. Leading
 - C. Organizing
 - D. Controlling

16. "Doing things right" and getting the most output for the least inputs refers to this managerial concern
- A. Innovation
 - B. Globalization
 - C. Efficiency
 - D. Effectiveness
17. Consistent high-quality service to this group is described as essential for an organization's survival.
- A. Shareholders
 - B. Competitors
 - C. Customers
 - D. Suppliers
18. Choose the option that represents the "Power Core" typically found at the center of the concept of power within an organization.
- A. Finance
 - B. Production
 - C. Marketing
 - D. Human Resources
19. Identify the organizational concept describing the number of employees a manager can effectively and efficiently supervise.
- A. Chain of Command
 - B. Centralization
 - C. Span of Control
 - D. Departmentalization

20. Select the statement that accurately reflects the relationship between work specialization and productivity.
- A. Low specialization always results in high productivity due to employee freedom.
 - B. Productivity increases indefinitely as work specialization increases.
 - C. Specialization has no impact on productivity after the 1940s.
 - D. Human diseconomies eventually cause productivity to drop despite high specialization.
21. Collective bargaining negotiations result in a written document known as:
- A. A job description.
 - B. An orientation manual.
 - C. A performance review.
 - D. A collective agreement.
22. The primary objective of the orientation process involves:
- A. Conducting a formal review of an employee's past performance.
 - B. Negotiating the terms of the collective agreement
 - C. Familiarizing new employees with their job, work unit, and organizational values
 - D. Assessing future human resource needs.
23. Identify the source considered an "Internal Search" during the recruitment process.
- A. Employment Agencies
 - B. School Placement
 - C. Employee Referrals
 - D. Temporary Services

24. In the context of a SWOT analysis, the internal analysis component focuses on identifying:
- A. Global and Economic trends.
 - B. Political and Legal factors.
 - C. Opportunities and Threats.
 - D. Strengths and Weaknesses.
25. Strategic plans typically possess this characteristic when compared to operational plans.
- A. They apply to the entire organization and encompass five or more years.
 - B. They are developed primarily by lower-level management.
 - C. They are limited in scope and measured daily or weekly.
 - D. They focus on specific details rather than broad direction.
26. Identify the specific benefit of planning that relates to the coordination of effort.
- A. It increases the impact of change on the organization.
 - B. It minimizes waste and redundancy.
 - C. It eliminates the need for intuitive thinking.
 - D. It replaces the need for controlling standards.
27. Select the statement that accurately describes the primary activities involved in the planning function.
- A. Defining goals, establishing strategy, and developing plan hierarchies .
 - B. Monitoring performance and correcting deviations.
 - C. Motivating employees and resolving conflicts.
 - D. Designing the organizational structure and assigning tasks.

28. The Management Science perspective is also referred to as:
- A. The Humanistic Perspective.
 - B. The Bureaucratic Perspective.
 - C. The Contingency View.
 - D. The Quantitative Perspective.
29. According to Fayol's "Unity of Command" principle, an employee should:
- A. Receive orders from multiple supervisors to ensure accuracy.
 - B. Prioritize their individual interests above the organization.
 - C. Have the authority to determine their own tasks.
 - D. Have only one boss.
30. Max Weber believed that a bureaucratic organization is superior to other forms because:
- A. Continuity is related to formal structure and positions rather than to a particular person.
 - B. It prioritizes the individual interest over the common interest of the organization.
 - C. It minimizes the use of written records to speed up decision-making.
 - D. It relies on personal connections and social standing for promotion.
31. The visual tool developed by an associate of Taylor to measure planned and completed work along each stage of production is known as:
- A. The Contingency Matrix.
 - B. The Gantt Chart.
 - C. The Fayol Bridge.
 - D. The Weber Hierarchy.

32. Top managers typically require a higher proficiency in this skill set compared to lower-level managers.
- A. Technical Skills
 - B. Conceptual Skills
 - C. Clerical Skills
 - D. Mechanical Skills
33. According to Mintzberg's Management Roles Approach, the roles of monitor, disseminator, and spokesperson fall under this category.
- A. Interpersonal roles
 - B. Decisional roles
 - C. Technical roles
 - D. Informational roles
34. Individuals responsible for making organization-wide decisions and establishing plans that affect the entire organization belong to this classification.
- A. Middle Managers
 - B. First-line Managers
 - C. Team Leaders
 - D. Top Managers
35. Select the individual responsible for coordinating and overseeing the work of other people so that organizational goals can be accomplished.
- A. Manager
 - B. Consultant
 - C. Shareholder
 - D. Non-managerial employee

36. An organization is best defined as a deliberate arrangement of people designed to achieve this specific outcome.
- A. Technological innovation
 - B. Market dominance
 - C. A distinct purpose
 - D. High profitability
37. Frederick Winslow Taylor proposal for improving productivity involved:
- A. Focusing on the total organization rather than the individual worker.
 - B. Retooling workers like machines and recalibrating their mental gears.
 - C. Encouraging employees to act on their own initiative without strict rules.
 - D. Relying on rules of thumb and traditional habits.
38. Administrative Management, as defined by Henri Fayol, is distinct from Scientific Management because it:
- A. Ignores the functions of planning and organizing.
 - B. Focuses on the total organization rather than the individual worker.
 - C. Uses mathematical and statistical techniques for problem-solving.
 - D. Emphasizes scientifically determined jobs for individual laborers.
39. Select the statement that best defines Human Resource Management.
- A. The calculation of payroll costs and financial rewards for employees.
 - B. The process of negotiating collective agreements with unions.
 - C. The integration of processes and systems ensuring staff are acquired and used effectively.
 - D. The development of advertising campaigns to attract external customers.

40. The "Hawthorne Effect," observed during studies at the Western Electric Company, suggests that:
- A. Strict bureaucratic rules decrease worker fatigue.
 - B. Worker attitudes toward their managers affect the level of workers' performance.
 - C. Higher illumination levels always result in lower productivity.
 - D. Financial incentives are the only way to motivate employees.

SECTION B (Total: 60 marks)

Answer THREE (3) questions only.

Please use the answer booklet provided.

Question 1

Communication is defined not merely as the transmission of data, but as the process by which information is exchanged and understood by two or more people, typically with the intent to influence behavior. However, the efficacy of this transfer is often compromised by the medium selected by the sender and the psychological distortions introduced by both parties. A manager must critically analyze these variables to ensure the successful understanding of meaning.

- (a) The theory of Channel Richness argues that different media possess varying capacities to convey information during a communication episode. Analyze the three specific characteristics that distinguish a "rich" channel from a "lean" one. Based on this analysis, compare and contrast "Face-to-Face conversations" against "Formal reports", and examine why a manager must select a high-richness channel when communicating non-routine, ambiguous issues rather than routine data.

(12 marks)

- (b) Analyze how "Filtering" specifically compromises the Encoding stage by the sender, and how "Selective Perception" distorts the Decoding stage by the receiver, ultimately preventing accurate feedback.

(8 marks)

Question 2

Control is the critical final link in the functional chain of management, providing the necessary feedback to validate planning and organizing efforts. However, the implementation of control varies significantly depending on when it is applied during the workflow and how the organization structures its standards.

Based on your understanding of control foundations:

- (a) Analyze the three distinct tools for controlling organizational performance: Feedforward, Concurrent, and Feedback control. In your analysis, deconstruct how each tool addresses problems at different stages of the input-process-output cycle and examine the specific purpose of each timing mechanism.

(12 marks)

- (b) Differentiate between Bureaucratic Control and Clan Control as approaches to designing control systems. Analyze the underlying mechanisms (such as authority versus shared values) that each system relies upon to regulate employee behavior.

(8 marks)

Question 3

Leadership is defined as the process or ability to influence a group toward the achievement of goals. However, effective leadership is rarely a "one-size-fits-all" approach; it requires analyzing the environment, the followers, and the specific mechanisms of influence used by the leader.

Based on the Hersey and Blanchard's Situational Leadership Theory (SLT) and Transactional vs. Transformational Theory, answer the following:

- (a) Hersey and Blanchard's Situational Leadership Theory (SLT) argues that successful leadership is contingent upon matching style with follower needs. Analyze this framework by deconstructing the four stages of follower readiness (R1 to R4). Examine how a leader must adapt their behavior—specifically regarding task and relationship orientation—to align effectively with each specific stage.

(12 marks)

- (b) Contemporary leadership studies distinguish between leaders who guide through exchange and those who inspire change. Differentiate between Transactional and Transformational leadership. Analyze the specific behavioral mechanisms each style uses to motivate subordinates and affect organizational performance.

(8 marks)

Question 4

Motivation is defined as the process by which a person's efforts are energized, directed, and sustained toward attaining a goal. While early theories focused heavily on human needs, contemporary research suggests that motivation is also deeply influenced by perceptions of fairness and the nature of the job itself. As a manager, understanding the distinction between merely preventing dissatisfaction and actively generating high performance is critical for retention and productivity.

- (a) "The opposite of job satisfaction is not job dissatisfaction." Critically evaluate this statement using Frederick Herzberg's Two-Factor Theory. In your analysis, distinguish between the specific roles of "Hygiene Factors" and "Motivators," and explain why improving working conditions often fails to increase employee motivation.

(12 marks)

- (b) An employee, Alex, discovers that a colleague with similar qualifications and workload is earning a significantly higher salary. Using J. Stacey Adams' Equity Theory, analyze Alex's likely psychological processing of this situation. Evaluate four specific behavioral choices Alex might make to restore a sense of equity.

(8 marks)

END OF EXAMINATION PAPER