

KATHMANDU UNIVERSITY
End Semester Examination
July/August, 2024

Marks Scored:

Level : B.E.

Year : III

Exam Roll No. :

Time: 30 mins.

Course : MGTS 303

Semester : II

F. M. : 10

Date : 08 AUG 2024

Registration No.:

SECTION "A"

[20 Q. × 0.5 = 10 marks]

Choose and encircle the most appropriate option from each set of choices

1. Breaking a job into elementary motions, discarding unnecessary motions, examining the remaining motions to find the most efficient method, teaching the resulting method to workers, and paying them according to the quantity of work produced refers to what?
 - a. Time and Motion Study
 - b. Taylor's Piece Rate System
 - c. Scientific Management
 - d. Standardization of Work
2. Which of the following is NOT one of Fayol's 14 principles of administration?
 - a. Division of Work
 - b. Authority and Responsibility
 - c. Unity of Direction
 - d. Continuous Improvement
3. According to Blake and Mouton's leadership grid, which management style is characterized by low concern for both people and results?
 - a. Country Club Management
 - b. Impoverished Management
 - c. Authority-Compliance Management
 - d. Middle-of-the-Road Management
4. According to Herzberg, which of the following best describes the relationship between salary and employee motivation?
 - a. Salary is a primary motivator and leads to satisfaction when increased.
 - b. Salary is a motivator and only contributes to job satisfaction when linked directly to performance outcomes.
 - c. Salary is a hygiene factor that prevents dissatisfaction but does not necessarily motivate when increased.
 - d. Salary is a hygiene factor that can motivate employees when it is significantly higher than industry standards.
5. In Management by Objectives (MBO), how are objectives primarily established?
 - a. Based on organizational directives.
 - b. In Collaboration with superior and subordinate
 - c. By the subordinate.
 - d. By the superior.
6. Which characteristic best describes simple exponential smoothing?
 - a. Decreases computational burden
 - b. Reduces influence of older data
 - c. Increases forecast accuracy
 - d. Retains all historical values
7. Choosing the alternative with the most favorable outcome falls under which type of decision-making scenario?
 - a. Decision making under uncertainty
 - b. Decision making under risk
 - c. Decision making under certainty
 - d. Decision making under ambiguity
8. Selecting the alternative with the highest expected value is the primary criterion for which type of decision-making approach?
 - a. Decision making under risk
 - b. Decision making under uncertainty
 - c. Decision making under certainty
 - d. Decision making under ambiguity

9. What does "span of control" specifically refer to in organizational management?
 - a. Supervised employees
 - b. Hierarchy levels
 - c. Delegated authority
 - d. Geographic reach
10. Which term best describes an organizational structure where each entity is subordinate to a single other entity, except for one at the top?
 - a. Autonomy
 - b. Independence
 - c. Collaboration
 - d. Hierarchy
11. Why is feedback control primarily used for in organizational contexts?
 - a. Adjusting initial plans
 - b. Improving future predictions
 - c. Correcting ongoing processes
 - d. Minimizing initial costs
12. Assets convertible to cash within a year are called:
 - a. Current assets
 - b. Tangible assets
 - c. Intangible assets
 - d. Fixed assets
13. Which intellectual property right protects an inventor's new and useful invention for a limited period of time?
 - a. Trademark
 - b. Copyright
 - c. Patent
 - d. Trade secret
14. Which technique involves creating a visual representation with a central concept and branching ideas, similar to a spider-web?
 - a. TRIZ
 - b. Mind mapping
 - c. Decision tree
 - d. SWOT analysis
15. According to the definition, reliability is primarily concerned with:
 - a. System safety regulations
 - b. System design specifications
 - c. System performance over time
 - d. System efficiency measurements
16. Which aspect is NOT typically considered in human factors engineering?
 - a. Ergonomics
 - b. Workplace safety
 - b. Cost-effectiveness
 - d. Aesthetics
17. Which of the following is NOT one of the core principles of Total Quality Management (TQM)?
 - a. Customer focus
 - b. Continuous improvement
 - c. Employee involvement
 - d. Hierarchical decision-making
18. A company calculates a 4-day Weighted Moving Average (WMA) for its weekly sales, with weights of 4, 3, 2, and 1 assigned. If the sales data for the last 4 days are Day 1 = 80 units, Day 2 = 100 units, Day 3 = 120 units, Day 4 = 90 units, what is the 4-day WMA for these sales?
 - a. 115 units
 - b. 105 units
 - c. 110 units
 - d. 100 units
19. According to the Principle of Insufficient Reason, if there are 4 possible outcomes for an event, what is the probability assigned to each outcome?
 - a. 0.25
 - b. 0.20
 - c. 0.30
 - d. 0.10
20. According to the Project Management Triangle, increasing project scope (content axis) most likely leads to:
 - a. Increased project cost or time, or both.
 - b. Decreased project quality.
 - c. Reduced project deadlines
 - d. Unchanged project constraints.

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SECTION "B"

[4 Q. × 5 = 20 marks]

Attempt *ANY FOUR* questions.

1. The standard quality objectives being Cost, Time and Scope, the Golden Triangle clearly demonstrates the basic mathematical relationship between its parts. Explain this relationship and provide example.
2. Cost of Quality equates cost of conformance and cost of non-conformance. What is cost of conformance and cost of non-conformance in the project? Explain its four types of cost? Provide one example of each types.
3. Below are some scenarios related to the hydro and energy sectors, your task is to define what is Concurrent Control, Feedback Control, and Feedforward Control and also identify whether each scenario is an example of Concurrent Control, Feedback Control, or Feedforward Control.

a. Flow Rate Monitoring	i. Regulatory Compliance Audits,
b. Power Output Analysis,	j. Environmental Impact Assessments,
c. Technological Upgrades	k. Customer Feedback Analysis,
d. Temperature Control,	l. Equipment Reliability Reports,
e. Power Output Analysis,	m. Weather Forecasting,
f. Grid Stability Monitoring,	n. Energy Demand Forecasting,
g. Turbine Performance Checks,	o. Advanced Maintenance Planning,
h. Safety Inspections,	p. Risk Management Strategies

4. Explain in short each of the following conflict management methods by providing an example for each:
 - a. Collaborating
 - b. Avoiding
 - c. Accommodating
 - d. Competing
 - e. Compromising
5. Provide a brief explanation of the Blake-Mouton Grid, highlighting the two dimensions it assesses in leadership styles. Then, list and define the five categories of leadership styles identified by this grid.
6. Explain five significant challenges encountered by early industrial factories in the 18th and 19th centuries (Problems of the Factory system) in bulleted format.

P.T.O.

SECTION "C"

[2 Q. × 10 = 20 marks]

7. Explain David McClelland's Acquired Needs Theory.
- Identify one (1) significance of each of these three (3) primary needs.
 - Discuss on one (1) point each on three (3) of these primary needs and how these needs influence individual behavior and motivation in organizational settings.
 - Provide one (1) example of each of these three (3) primary needs illustrating how leaders can leverage this theory to enhance employee engagement and performance.
8. You run a small handicraft company that produces pashmina shawls and woolen rugs.
- Each pashmina yields a profit of NPR. 2500.
 - Each rug yields a profit of NPR. 3500.
 - Producing a unit of pashmina requires 6 hours of weaving and 2 hours of dyeing.
 - Producing unit of rug requires 2 hours of weaving and 6 hour of dyeing.
 - You have a total of 6 weavers and 3 dyers, each working 48 hours per week.
 - How many units of pashmina shawls and rugs should you produce per week to maximize profit?
 - Solve the problem graphically as a linear program and validate the solution analytically.
9. A small handicraft company that produces pashmina shawls and woolen rugs you own uses exponential smoothing to forecast the monthly demand for these products. For the most recent month, the forecasted demand was 100 units of pashmina and 150 units of rugs. However, the actual demand turned out to be 120 units of pashmina and 160 units of rugs. The initial smoothing constant (α) you used was 0.3.
- Calculate the forecast for the next month for both pashmina and rugs using the exponential smoothing formula with the given smoothing constant (α).
 - If the smoothing constant (α) is increased to 0.5, calculate the new forecast for the next month for both pashmina and rugs.
 - If the forecast error (absolute difference between forecast and actual demand) for either product exceeds 10 units, the smoothing constant (α) should be increased by 0.1. Calculate the adjusted alpha (α) and the revised forecast for the next month for both pashmina and rugs based on this adjustment.
 - Explain how a higher (α) alpha value and lower (α) alpha value can impact the accuracy of forecasts, such as seasonal demand fluctuations for pashmina and rugs.