

**RYERSON UNIVERSITY**  
**MGT 401 Term Test I**

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Name: \_\_\_\_\_

Student Number: \_\_\_\_\_

*Instructions:*

*Total Time: 1.5 hours*

*Total Marks:*

*Aids allowed: Calculator, approved formula sheet*

*Answer ALL questions on the scantron provided. Space is provided for rough work if required.*

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**SECTION ONE; 65 MARKS TOTAL - 1 MARK EACH.**

1. The purpose of "cycle counting" is to:
  - A) count all the items in inventory
  - B) determine the optimum re-order point
  - C) reduce discrepancies between inventory records and actual
  - D) reduce theft
  - E) I've got no idea on this one – I was preparing for the finance test (my bad!)
  
2. Quality control is assuring that processes are performing in an acceptable manner.
  - A) True
  - B) False
  
3. The purpose of control charts is to:
  - A) estimate the proportion of output that is acceptable
  - B) weed out defective items
  - C) determine if the output is within specifications/specifications
  - D) distinguish between random variation and assignable variation in the process
  - E) all of these
  
4. Lost production time, scrap, and rework are examples of:
  - A) internal failure costs
  - B) external failure costs
  - C) appraisal costs
  - D) prevention costs
  - E) gork costs
  
5. Quality planning and administration, quality training, and quality control procedures are examples of:
  - A) internal failure costs
  - B) external failure costs
  - C) appraisal costs
  - D) prevention costs
  - E) replacement costs

6. Which of the following is not a function of inventory?
- A) to be held in-transit
  - B) to hedge against price increases
  - C) to prevent decoupling of operations
  - D) to minimize purchasing costs
  - E) to prevent shortages
7. The amount of inspection can range from no inspection at all to inspecting each item numerous times.
- A) True
  - B) False
8. The design of work systems involves all but which of the following?
- A) work measurement
  - B) job design
  - C) compensation
  - D) process design
  - E) all of the choices are involved
9. Which of the following is not the one that job designers focus on?
- A) what will be done in a job
  - B) who will do the job
  - C) how the job will be done
  - D) by when the job should be done
  - E) where the job will be done
10. Which of the following would not generally be considered a reason for holding inventories?
- A) smoothing requirements operations
  - B) decoupling internal operations
  - C) meeting anticipated demand
  - D) minimizing holding costs
  - E) reducing the risk of a stockout
11. Which of the following is not a potential benefit of the use of self-directed teams?
- A) higher quality
  - B) higher productivity
  - C) greater worker satisfaction
  - D) greater satisfaction for middle managers
  - E) lower turnover
12. To which worker would learning curves be most applicable?
- A) bus driver
  - B) punchpress operator
  - C) assembly-line worker
  - D) auto service mechanic
  - E) laundromat operator

13. The chart used to review the overall sequence of an operation by focusing on either the movements of the operator or materials is called a(n):
- A) walking-large chart
  - B) worker-machine chart
  - C) worker-materials chart
  - D) process chart
  - E) multi-activity chart
14. A shift in the process mean for a measured characteristic would most likely be detected by a:
- A) p-chart
  - B) x-bar chart
  - C) c-chart
  - D) R-chart
  - E) s-chart
15. Which of the following conveys the essence of learning curves?
- A) As the number of units produced increase, time per unit increases.
  - B) As the number of units produced decrease, time per unit increases.
  - C) As the number of units produced increase, time per unit remains constant.
  - D) As the number of units produced increase, time per unit doubles.
  - E) As the number of units produced increase, time per unit decreases.
16. Process Improvement involves which of the following?
- I) process mapping
  - II) process design
  - III) process analysis
  - IV) process re-design
- A) I, II, III, IV
  - B) I, III, IV
  - C) II, III, IV
  - D) I, II, III
  - E) III, IV
17. The impact on efficiency of work breaks is affected by all of the following EXCEPT:
- A) quality of work break
  - B) frequency of work break
  - C) length of work break
  - D) timing of work break
  - E) amount of physical or mental requirements of the job.
18. Quality assurance that occurs during the production process is known as acceptance sampling.
- A) True
  - B) False
19. High-cost, low-volume items often require little inspection.
- A) True
  - B) False

20. The probability of concluding that assignable variation exists when only random variation is present is:
- I. the probability of a Type I error
  - II. known as the alpha risk
  - III. highly unlikely
  - IV. the sum of probabilities in the two tails of the distribution
- A) I and II
  - B) I and IV
  - C) II and III
  - D) I, II, and IV
  - E) I, III, and IV
21. Costs of inspectors, testing, test equipment, and labs are examples of:
- A) internal failure costs
  - B) external failure costs
  - C) appraisal costs
  - D) prevention costs
  - E) replacement costs
22. A technique for estimating the proportion of time a worker spends on various activities is:
- A) stopwatch time study
  - B) standard elemental (historical) times
  - C) N'pas predetermined rouge standard
  - D) predetermined (published) time standards
  - E) work sampling
23. Low-cost, high-volume items often require more intensive inspection.
- A) True
  - B) False
24. Warranty service, processing of complaints, and costs of litigation are examples of:
- A) internal failure costs
  - B) external failure costs
  - C) appraisal costs
  - D) prevention costs
  - E) replacement costs
25. What is the effect of an increase in the desired confidence level on the number of observations necessary in a time study?
- A) increases
  - B) decreases
  - C) unaffected
  - D) may increase or decrease, depending on the sample standard deviation
  - E) impossible to say without additional information

26. A quality improvement technique that involves the sharing of thoughts and ideas in a way that encourages unrestrained collective thinking is:
- A) Pareto analysis
  - B) benchmarking
  - C) brainstorming
  - D) a control chart
  - E) a check sheet
27. The EOQ model is most relevant for which one of the following?
- A) ordering items with dependent demand
  - B) determination of safety stock
  - C) ordering perishable items
  - D) determining fixed interval order quantities
  - E) determining fixed order quantities
28. Sample mean control chart can be created using:
- I. the process standard deviation
  - II. the standard deviation of the sampling distribution
  - III. the sample range
  - IV. the average of sample ranges
- A) I or II
  - B) I or III
  - C) II or III
  - D) II or IV
  - E) I or II or IV
29. The optimum level of inspection is where the:
- A) cost of inspection is minimum
  - B) cost of passing defectives is minimum
  - C) total cost of inspection and defectives is maximum
  - D) total cost of inspection and defectives is minimum
  - E) difference in inspection and defectives costs is minimum
30. Which is not included in order costs?
- A) time spent paying invoices
  - B) moving delivered goods to temporary storage
  - C) inspecting incoming goods for quantity
  - D) taking an inventory to determine how much is needed
  - E) cost of purchases
31. The four primary determinants of quality are:
- A) design, performance, ease of use, and service after delivery
  - B) design, conformance to design, reliability, and service after delivery
  - C) design, conformance to design, ease of use, and service after delivery
  - D) performance, conformance, reliability, and durability
  - E) design, durability, ease of use, and service after delivery

32. Which of the following is not a suggestion for an inventory storage system?
- A) Store heavy or fast-moving items on the floor.
  - B) Store obsolete items in the highest locations.
  - C) Have the right level of automation.
  - D) Have controlled access to the building.
  - E) Make sure the storeroom is not cluttered.
33. The optimum level of inspection occurs when the cost of passing defectives is minimized.
- A) True
  - B) False
34. Giving workers responsibility for quality improvements and authority to make changes is known as:
- A) continuous improvement
  - B) passing the buck
  - C) foolishness
  - D) employee empowerment
  - E) employee involvement
35. Methods analysis develops which aspect of jobs?
- A) behavioural aspects
  - B) efficiency aspects
  - C) pay levels
  - D) all of the choices
  - E) none of the choices
36. Which of the following is not a major way in which poor quality affects an organization?
- A) poor reputation
  - B) liability
  - C) productivity loss
  - D) costs
  - E) all of the choices are ways
37. Experienced methods analysts generate improvement ideas by asking all of the following questions EXCEPT:
- A) Can travel distances be shortened?
  - B) Can an operation be added?
  - C) Can similar activities be grouped?
  - D) Can additional equipment be helpful?
  - E) Can the sequence of operations be changed?
38. Which of the following is not a goal of process improvement?
- A) increasing customer satisfaction
  - B) reduction of waste
  - C) achieving higher quality
  - D) identifying a cause of the problem
  - E) All are the goals.

39. Which of the following is not one of the assumptions of the basic EOQ model?
- A) Annual demand requirements are known and constant.
  - B) Lead time does not vary.
  - C) Each order is received in a single delivery.
  - D) Quantity discounts are available.
  - E) All of the choices are necessary assumptions.
40. Which of the following are dimensions of product quality?
- I) performance
  - II) price
  - III) perceived quality
  - IV) service after sale
- A) I, II
  - B) I, II, III
  - C) II, III, IV
  - D) I, II, IV
  - E) I, III, IV
41. The goal of the basic EOQ model is to:
- A) waste time
  - B) minimize order cost
  - C) minimize holding cost
  - D) minimize the sum of purchasing and ordering costs
  - E) minimize the sum of ordering and holding costs
42. The fact that human activities typically improve when they are done on a repetitive basis is described by a:
- A) normal distribution curve
  - B) learning curve
  - C) binomial distribution curve
  - D) exponential curve
  - E) none of the choices
43. Which of the following is not an element of TQM?
- A) Continual improvement
  - B) Competitive benchmarking
  - C) Manager empowerment
  - D) Team approach
  - E) All of the choices are elements
44. A control chart used to monitor the process mean is the:
- A) p-chart
  - B) R-chart
  - C) x-bar chart
  - D) c-chart
  - E) Gantt chart

45. Which of the following are dimensions of product quality?
- I) aesthetics
  - II) fitness for use
  - III) price
  - IV) special features
- A) I, II
  - B) I, II, III
  - C) II, III, IV
  - D) I, II, IV
  - E) I, III, IV
46. Which of the following most closely describes job enlargement?
- A) horizontal loading
  - B) increasing the level of responsibility associated with a job
  - C) transferring workers through a series of jobs to increase their scope of experience
  - D) increasing the amount of workspace assigned to a worker
  - E) assigning two jobs to the same worker and asking him to dance
47. The tool that is useful in documenting the current process is:
- A) a control chart
  - B) a Pareto chart
  - C) a check sheet
  - D) a flow diagram
  - E) Taguchi chart
48. Which all of the following is not a function of inventory?
- A) meeting anticipated demand
  - B) smoothing production requirements
  - C) making the system more productive
  - D) protecting against stock-outs
  - E) All of the choices are functions of inventory.
49. Which of the following are dimensions of service quality?
- I) convenience
  - II) reliability
  - III) time
  - IV) insurance
- A) I, II
  - B) I, III
  - C) I, II, III
  - D) II, III, IV
  - E) I, II, III, IV

50. Which of the following is not a step in the quality control process?
- A) define what is to be controlled
  - B) compare measurements to a standard
  - C) eliminate all defects found
  - D) take corrective action if necessary
  - E) all of the choices are steps.
51. The process of identifying other organizations that are best at some facet of your operations, and then modeling your organization after them is known as:
- A) continuous improvement
  - B) employee empowerment
  - C) benchmarking
  - D) copycatting
  - E) industrial espionage
52. The methods analysis chart which describes the overall sequence of operations, transportation, storage, delays, and inspection is a(n):
- A) process chart
  - B) worker-machine chart
  - C) MTM table
  - D) simultaneous-motion (simo) chart
  - E) efficiency/time-of-day chart
53. Groups of workers who meet informally to discuss ways to improve products or processes are called:
- A) brainstorming teams
  - B) quality circles
  - C) benchmarking teams
  - D) continuous improvement teams
  - E) quality teams
54. Which of the following is not an inspection point in manufacturing?
- A) Raw materials and purchased parts
  - B) Finished products
  - C) Before a costly operation
  - D) Before a covering process
  - E) All of the choices are inspection points.
55. Ergonomics tries to remove all of the following EXCEPT:
- A) awkward reaching and bending.
  - B) forceful gripping of tools.
  - C) traveling long distances.
  - D) endless repetition of motions.
  - E) all of the choices are correct

56. In which of the following managerial activities would learning curves probably be the least useful?
- A) negotiated purchasing
  - B) manpower planning
  - C) location analysis
  - D) budgeting
  - E) pricing new products
57. Which of the following is not true about the TQM approach to problem solving?
- A) It should follow a standard approach.
  - B) Problems should be viewed as opportunities.
  - C) It should focus on eliminating the cause of the problem.
  - D) The Deming wheel provides the conceptual basis for it.
  - E) All of the choices are true.
58. Once production is underway and the learning curve effect is occurring, successive changes made to the production process will cause the time per unit to:
- A) continue following the original learning curve without any impact
  - B) cause a scallop effect
  - C) increase the unit time and result in a higher percentage learning curve
  - D) decrease the unit time and result in a higher percentage learning curve
  - E) decrease the unit time and result in a lower percentage learning curve
59. Which one of the following is not a requirement for effective inventory management?
- A) a priority classification system
  - B) a demand forecast
  - C) estimates of holding and ordering costs
  - D) knowledge of variability of usage and/or lead times
  - E) All of the choices are necessary
60. Quality control efforts that occur during production are referred to as statistical process control.
- A) True
  - B) False
61. A run chart would be used to:
- A) track the values of a variable over time
  - B) list potential causes of an effect
  - C) identify a source of problem
  - D) collect and organize the data
  - E) none of the choices
62. Which of the following is not true about safety?
- A) Workers cannot be effectively motivated if they are in physical danger.
  - B) Accidents are expensive.
  - C) A basic cause of accidents is worker carelessness.
  - D) Safety conditions are regulated by the government.
  - E) all of the choices are true

63. Which of the following is a major advantage of job specialization in business?
- A) increased motivation
  - B) increased opportunity for advancement
  - C) increased opportunity for self-fulfillment
  - D) increased proficiency
  - E) increased job enrichment
64. Which of the following is not generally considered an advantage of specialization?
- A) high productivity
  - B) low wage costs
  - C) ease of training employees
  - D) low equipment costs
  - E) all of the choices are advantages
65. Which of the following is not a specific tool for solving quality problems?
- A) benchmarking
  - B) check sheets
  - C) Pareto analysis
  - D) cause-and-effect diagrams
  - E) Taguchi charts

## Answer Key

1. C
2. A
3. D
4. A
5. D
6. C
7. A
8. D
9. D
10. D
11. D
12. D
13. D
14. B
15. E
16. A
17. A
18. B
19. B
20. D
21. C
22. E
23. B
24. B
25. A
26. C
27. E
28. D
29. D
30. E
31. C
32. B
33. B
34. D
35. B
36. E
37. B
38. D
39. D
40. D
41. E
42. B
43. C
44. C
45. C
46. A
47. D
48. C
49. B
50. C
51. C
52. A
53. B

- 54. E
- 55. C
- 56. C
- 57. E
- 58. B
- 59. E
- 60. A
- 61. A
- 62. E
- 63. D
- 64. D
- 65. E