

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

1) Controlling means overseeing the company's day-to-day operations.

Answer: True False

2) Managerial accounting gathers, summarizes, and reports the cost and revenue data relevant to decisions.

Answer: True False

3) Managerial accounting focuses on providing shareholders and creditors with the information they need to make investment and lending decisions.

Answer: True False

4) Financial accounting focuses on providing internal management with the information it needs to run an organization efficiently and effectively.

Answer: True False

5) Evaluating the results of business operations against a plan and then making adjustments to that plan is called budgeting.

Answer: True False

6) The four primary responsibilities of managers are planning, directing, controlling, and decision making.

Answer: True False

7) Managerial accounting develops reports that help internal parties effectively and efficiently run the company.

Answer: True False

8) Directing means setting goals and objectives for the company and determining how to achieve them.

Answer: True False

9) Budgets are the quantitative expression of management's plans.

Answer: True False

10) Making adjustments to keep the company moving forward is related to the management responsibility of controlling.

Answer: True False

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

11) Planning involves which of the following activities?

- A) Overseeing the company's day-to-day operations
- B) Getting feedback on results
- C) Evaluating the results of operations
- D) Setting goals and objectives for the company

Answer: D

12) When management compares the budget to actual results, which of the following is being fulfilled?

- A) Decision-making
- B) Directing
- C) Controlling
- D) Planning

Answer: C

13) Which of the following management responsibilities are being fulfilled when management uses feedback to take corrective action on the budgets?

- A) Controlling and decision-making
- B) Directing and planning
- C) Planning and controlling
- D) Planning and decision-making

Answer: A

14) Which one of the following manager responsibilities encompasses the other three?

- A) Controlling
- B) Planning
- C) Decision-making
- D) Feedback

Answer: C

15) Using product cost information to determine sales prices is an example of

- A) controlling, planning, and decision-making.
- B) directing, planning, and decision-making.
- C) controlling, directing, and planning.
- D) directing, controlling, and planning.

Answer: B

16) Using hourly sales reports to determine the level of staffing needed to service customers fulfills which of management's four primary responsibilities?

- A) Directing, planning, and decision-making
- B) Controlling, planning, and decision-making
- C) Analyzing, directing, and planning
- D) Directing, controlling, and planning

Answer: A

17) Budgets are the way that managers can express their

- A) plans.
- B) control.
- C) decision-making.
- D) hiring practices.

Answer: A

18) Comparing actual results to budgets is an example of the management function of

- A) controlling.
- B) decision-making.
- C) directing.
- D) planning.

Answer: A

19) Overseeing the day-to-day operations of a company is an example of the management function of

- A) controlling.
- B) decision-making.
- C) directing.
- D) planning.

Answer: C

20) Preparing budgets is an example of the management function of

- A) controlling.
- B) decision-making.
- C) directing.
- D) planning.

Answer: D

21) Evaluating results against the plan is an example of the management function of

- A) controlling.
- B) decision-making.
- C) directing.
- D) planning.

Answer: A

22) Management accounting

- A) creates technical reports that require external audit for verification.
- B) helps managers make decisions.
- C) is the same as cost accounting.
- D) is useful for external and internal users.

Answer: B

- 23) The budgetary control function may include evaluating the difference
- A) between the historical cost and the current cost.
 - B) between budgeted amounts and actual results.
 - C) between current operating costs and last year's operating costs.
 - D) between the original budget and the final adjusted budget.

Answer: B

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

- 24) What are the four primary responsibilities of managers as described in Chapter 1? Give an example of each type of responsibility.

Answer: The following are managers' four primary responsibilities:

- a. Planning: An example of planning is when the manager of a local McDonald's restaurant makes the schedule of employee work hours for the upcoming week.
- b. Directing: An example of directing is when the manager of the local McDonald's adjusts the menu to reflect local tastes and preferences.
- c. Controlling: An example of controlling is when the manager of the local McDonald's compares the actual number of hamburger patties used over the past week to the budgeted number of hamburger patties.
- d. Decision-making: The owners of the local McDonald's franchise analyze the potential of the current location and decide to open a second location five miles away in a popular shopping plaza.

Note that student examples of each type of responsibility may vary.

MATCHING. Choose the item in column 2 that best matches each item in column 1.

Match the following:

- 25) Setting goals and objectives.

Answer: D

A) Decision making

B) Directing

- 26) The process in which management engages while it plans, directs, and controls operations.

Answer: A

C) Controlling

D) Planning

- 27) Evaluating results of business operations.

Answer: C

- 28) Determining how to achieve company goals.

Answer: D

- 29) Overseeing the company's day to day operations.

Answer: B

Match the following:

30) Setting a 20% increase in sales as goal for the next fiscal period.

Answer: D

31) Streamline company procedures to reduce the time required per unit of product produced.

Answer: A

32) Selecting the best corporate website design from a number of proposals.

Answer: B

33) Monitor both voluntary and involuntary employee turnover.

Answer: C

34) Making a determination about the appropriate level of advertising expenditures.

Answer: B

35) Increasing marketing efforts.

Answer: A

36) Implement an employee training program to improve moral.

Answer: A

37) Setting a target level of employee turnover.

Answer: D

38) Determine that R & D costs should be increased by 10% in the upcoming fiscal quarter.

Answer: D

39) Set prices at a competitive level.

Answer: A

40) Improve the design of the corporate website.

Answer: A

41) Monitor web traffic through the use of an online counting device.

Answer: C

A) Directing

B) Decision making

C) Controlling

D) Planning

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

42) The design of a management accounting system should consider how reports affect employees' behaviour.

Answer: True False

43) International Financial Reporting Standards (IFRS) must be followed when managerial accounting reports are prepared.

Answer: True False

44) Accounting Standards for Private Enterprise (ASPE) must be followed when managerial accounting reports are prepared.

Answer: True False

45) Management accounting requires independent audits of the firm's books.

Answer: True False

46) The primary purpose of managerial accounting information is to help external users make investing and lending decisions.

Answer: True False

47) The primary users of managerial accounting information are internal users such as managers.

Answer: True False

48) The primary managerial accounting product is the company's audited financial statements.

Answer: True False

49) Managerial accounting information emphasizes relevance, more than reliability and objectivity.

Answer: True False

50) Managerial accounting information tends to report on segments of the business.

Answer: True False

51) Managerial accounting reports are always prepared on a quarterly and annual basis.

Answer: True False

52) Managerial information is always based on historical transactions with external parties.

Answer: True False

53) Employee behaviour is one of the factors that must be considered when designing the managerial accounting control system.

Answer: True False

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

54) Which of the following statements is TRUE about managerial accounting information?

A) It is audited.

B) It must be prepared in conformity with generally accepted accounting principles (GAAP).

C) It emphasizes relevance.

D) It is prepared annually and quarterly.

Answer: C

55) Management accounting focuses on
A) tax preparation. B) external reporting. C) internal reporting. D) auditing.

Answer: C

56) The person MOST likely to use ONLY financial accounting information would be the
A) bank loan officer. B) plant manager.
C) product manager. D) vice president of plant operations.

Answer: A

57) Which of the following persons or groups would be LEAST likely to receive detailed managerial accounting reports?
A) CEO B) Plant managers
C) Sales territory managers D) Current shareholders

Answer: D

58) Which of the following types of accounting is designed to meet the needs of decision-makers inside a company?
A) Managerial accounting B) Tax accounting
C) Audit accounting D) Financial accounting

Answer: A

59) The primary goal of managerial accounting is to provide information to
A) shareholders. B) internal decision-makers.
C) creditors. D) both shareholders and creditors.

Answer: B

60) Which of following is TRUE?
A) Management accounting focuses on historical transactions.
B) Financial accounting focuses on future data.
C) Financial accounting uses the cash basis for recording transactions.
D) Management accounting focuses on relevant data.

Answer: D

61) Which of the following statements is FALSE?
A) Financial accounting provides external reports.
B) Financial accounting provides sufficient information for managers to effectively plan and control operations.
C) Financial accounting helps investors make decisions.
D) Financial accounting reports help creditors make decisions.

Answer: B

62) Which of the following is TRUE?
A) Managerial accounting reports must follow GAAP.
B) Managerial accounting reports aid potential investors.
C) Managerial accounting reports are audited by professional accountants.
D) Managerial accounting reports provide detailed internal information.

Answer: D

63) Which of the following are the internal decision-makers of a company?
A) Vendors B) Shareholders C) Customers D) Managers

Answer: D

- 64) For a publicly traded company, which of the following reports must be audited by an outside agency?
- A) Annual financial budgets
 - B) Monthly financial statements
 - C) Annual financial statements
 - D) Budgets

Answer: C

- 65) Which of the following groups are most likely to use a company's budget information?
- A) Customers
 - B) Suppliers
 - C) Creditors
 - D) Managers

Answer: D

- 66) Owners of a company are its
- A) customers.
 - B) shareholders.
 - C) creditors.
 - D) managers.

Answer: B

- 67) Information for external parties about past performance is provided by
- A) budget reports.
 - B) planning reports.
 - C) financial accounting reports.
 - D) managerial accounting reports.

Answer: C

- 68) In what way do managers benefit from the use of a management information system?
- A) Managers can store old documents in hard copy.
 - B) The managers could combine or adjust data to answer the questions from particular internal and external users.
 - C) Data can be entered at numerous input terminals within the organization.
 - D) The managers would not be completely responsible for the information that is entered into the database system.

Answer: B

- 69) Managerial accounting (select all that apply)
- A) reports include detailed information on the various operating segments of the business such as product lines or departments.
 - B) must be audited by an independent auditor.
 - C) must comply with IFRS/ASPE.
 - D) focuses on the future and includes activities such as preparing next year's operating budget.

Answer: A, D

- 70) Financial accounting
- A) must comply with IFRS/ASPE.
 - B) is prepared for the use of department heads and other employees.
 - C) reports include detailed information on the various operating segments of the business such as product lines or departments.
 - D) focuses on the future and includes activities such as preparing next year's operating budget.

Answer: A

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

71) Discuss at least four differences between financial accounting and managerial accounting.

Answer:

Item	Managerial Accounting	Financial Accounting
Primary Users	Internal Users	External Users (shareholders, creditors and regulators)
Purpose of Information	To help managers plan, direct, control and make decisions	To help external users make investing and lending decisions
Primary Product	Any internal report deemed worthwhile by management	Financial Statements
What must be included/how it should be formatted	Determined by management	Standards must be chosen, IFRS or ASPE
Underlying basis	Focus on the future	Historical transactions
What information characteristic is emphasized	Relevance	Reliable and objective
Business unit	Segments of the business	The company as a whole
Frequency of reports	Determined by management	Annually and quarterly
Verification	No independent audits required	Publicly traded companies must be audited by independent CPA
Required by outside agency	No	Yes - securities commissions
Concerns over the impact on employees' behaviour	Management should consider behavioural implications	Primary concern is adequacy of disclosure

72) Is financial accounting or managerial accounting more useful to a plant (factory) manager? Explain your answer.

Answer: Managerial accounting is likely to be much more useful to a plant manager than financial accounting. Financial accounting typically gives financial information for the company as a whole; the plant manager would find very little information in the financial accounting reports which relate directly to the plant environment and the performance of the plant itself. Managerial accounting, on the other hand, could provide the plant manager with information relating to just the plant. Examples of some types of information provided by managerial accounting are:

- comparison of budgeted costs versus actual costs.
- tracking of safety incidents.
- quality costs.
- product line profitability.
- profitability by shift.

(Student examples may vary.)

73) Describe management accounting and financial accounting.

Answer: Management accounting provides information to internal decision makers of the business such as top executives, managers, sales representatives, and production supervisors. Its purpose is to help managers predict and evaluate future results. Reports are generated often and usually broken down into smaller reporting divisions such as department or product line. There are no rules to be complied with since these reports are for internal use only. Management accounting embraces more extensively such topics as the development and implementation of strategies and policies, budgeting, special studies and forecasts, influ employee behaviour, and nonfinancial as well as financial information.

Financial accounting, by contrast, provides information to external decision makers such as investors and creditors. Its purpose is to present a fair picture of the financial condition of the company. Reports are generated quarterly or annually and report on the company as a whole. The financial statements must comply with IFRS/ASPE. A CPA audits, or verifies, that the IFRS/ASPE are being followed.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

74) The CFO of a company is responsible for the day-to-day running of the company.

Answer: True False

75) The treasurer and the controller report directly to the CFO.

Answer: True False

76) The internal audit department reports directly to the subcommittee of the board of directors called the audit committee.

Answer: True False

77) The internal audit department reports directly to the CFO.

Answer: True False

78) In most companies, managerial accountants no longer perform routine mechanical accounting tasks.

Answer: True False

79) Managerial accountants are now considered to be similar to advisors and business analysts.

Answer: True False

80) Oral and written communications skills are considered among the most valuable skills a management accountant can possess.

Answer: True False

81) Technology has been a driving factor in the changing roles of management accountants.

Answer: True False

82) Management accountants spend more time planning, analyzing and interpreting accounting data and less time recording routine accounting transactions than they have in the past.

Answer: True False

83) The only skill required of managerial accountants is that they have a solid knowledge of both financial and managerial accounting.

Answer: True False

84) Management accountants only need a solid understanding of managerial accounting, and not financial accounting.

Answer: True False

85) Management accountants need a solid understanding of both managerial accounting, and financial accounting.

Answer: True False

86) Management accountants only advise cross-functional teams because teams consist of employees from R&D, design, production, marketing, distribution, and customer service.

Answer: True False

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

87) Who typically manages the daily operations of a company?

- A) The company's board of directors
- B) The CEO
- C) The controller
- D) Stockholders

Answer: B

88) Who typically provides oversight for large corporations?

- A) The CEO
- B) Stockholders
- C) The Board of Directors
- D) The company president

Answer: C

89) The vice-president of operations directly reports to which person(s)?

- A) The CEO
- B) The Board of Directors
- C) The CFO
- D) The COO

Answer: D

90) The COO is typically responsible for managing which of the following aspect(s) of the company?

- A) Research and development, production, and distribution
- B) Financial, managerial, and tax accounting
- C) Internal controls
- D) The annual audit

Answer: A

91) Which of the following report to the audit committee of the Board of Directors?

- A) The CFO and internal audit department
- B) The treasurer and controller
- C) The internal audit department and the independent CPA firm
- D) The CFO and the independent CPA firm

Answer: C

92) Which of the following report to the CFO?

- A) The internal audit department
- B) The treasurer and controller
- C) The internal audit department and the independent CPA firm
- D) The the independent CPA firm

Answer: B

93) Who is primarily responsible for raising capital and investing funds?
A) The CFO B) The CEO C) The COO D) The Treasurer

Answer: D

94) What has been the key factor in changing the role of managerial accountants?
A) Government licensing B) Stricter audit standards
C) Stricter GAAP standards D) Technology

Answer: D

95) Which would be a subgroup of the Board of Directors?
A) Financial committee B) Managerial committee
C) Stockholders' committee D) Audit committee

Answer: D

96) Which person is hired directly by the board of directors to run the company?
A) The COO B) The Treasurer C) The CFO D) The CEO

Answer: D

97) Managerial accountants often work on teams called
A) cross-functional teams. B) work groups.
C) audit teams. D) multi-functional teams.

Answer: A

98) A company's Board of Directors meets
A) periodically, and at least annually. B) annually.
C) monthly. D) quarterly.

Answer: A

99) The Toronto Stock Exchange (TSE/TSX) requires that members of a board of directors for a listed company have
A) members experienced in business.
B) two independent members.
C) only stockholders as members.
D) membership that represents the diversity of Canada.

Answer: B

100) The person or position who is directly responsible for all financial concerns is the
A) CFO. B) Treasurer. C) COO. D) CEO.

Answer: A

101) Which of the following statements is true regarding the changing role of management accountants?
A) Because of the increased emphasis on analyzing business operations, management accountants have become key organizational decision makers.
B) Technology has changed the role of management accountants.
C) Management accountants are no longer involved with recording transactions.
D) The increasing scope of the regulatory environment has changed the focus of management accountants.

Answer: B

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

102) Why is it important that all managerial accountants adhere to professional and ethical standards as codified by the profession?

Answer: At the root of all business relationships is trust. Without trust, business cannot function.

103) Describe the position of the CFO, the treasurer, and the controller within the organization. Describe the main functions of the treasurer and the controller.

Answer: The treasurer and controller both report to the CFO. The treasurer is responsible for the investing functions of the organization (i.e., obtaining financing, paying down debt, issuing stock, etc.). The controller is responsible for the financial accounting system and the managerial accounting system of the organization.

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

104) Identify the skills required of a management accountant

Answer: Knowledge of both financial and managerial accounting
Problem solving and decision making
Ability to lead and work on a team
Professionalism
Ethical standards
Oral and Written communication skills

105) What is the most important skill for a management accountant to possess? Why?

Answer: Student answers will vary. Examples can include:

Communication skills to explain the impact of management decisions on the financial results and to explain financial reports in a manner understood by the company's managers.

Ethical standards because business is built on trust.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

106) Recognition of ethical issues that may arise in work to be performed is evidence of Adhering to Integrative Analysis in the CPA Guidelines for Ethical Behaviour.

Answer: True False

107) Anticipation of issues and identification of possible alternatives is evidence of Adhering to Integrative Analysis in the CPA Guidelines for Ethical Behaviour.

Answer: True False

108) Having the requisite knowledge to perform certain tasks is an example of Adherence to Rules of Professional Conduct in the CPA Guidelines for Ethical Behaviour.

Answer: True False

109) Having the requisite knowledge to perform certain tasks is an example of Enabling Competencies in the CPA Guidelines for Ethical Behaviour.

Answer: True False

110) No ownership interest in an audit client is an example of Adherence to Rules of Professional Conduct in the CPA Guidelines for Ethical Behaviour.

Answer: True False

111) Professional Accountants in Canada are represented by the Certified Professional Accountants of Canada (CPA Canada) in addition to provincial accounting associations.

Answer: True False

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

112) Which of the following organizations is the association of professional accountants in Canada?

- A) The Institute of Chartered Accountants B) The Society of Management Accountants
C) The Chartered Professional Accountants D) The Certified General Accountants

Answer: C

113) To resolve ethical dilemmas, management accountants should FIRST

- A) follow their company's established policies for Reporting unethical behaviour.
B) call the Society of Management Accountants "Ethics Hotline."
C) consult an attorney.
D) discuss the unethical situation with their immediate supervisor.

Answer: A

114) Having the requisite knowledge to perform certain tasks is an example of _____ in the CPA Guidelines for Ethical Behaviour.

- A) Adherence to Rules of Professional Conduct B) Enabling Competencies
C) Assessing the Situation D) Integrative Analysis

Answer: B

115) No ownership interest in an audit client is an example of _____ in the CPA Guidelines for Ethical Behaviour.

- A) Adherence to Rules of Professional Conduct B) Enabling Competencies
C) Assessing the Situation D) Integrative Analysis

Answer: A

116) Planning and identifying possible conflicts of interest is an example of _____ in the CPA Guidelines for Ethical Behaviour.

- A) Adherence to Rules of Professional Conduct B) Enabling Competencies
C) Assessing the Situation D) Integrative Analysis

Answer: C

117) Scrutinizing ethical constraints to determine the best way forward is an example of _____ in the CPA Guidelines for Ethical Behaviour.

- A) Adherence to Rules of Professional Conduct B) Enabling Competencies
C) Assessing the Situation D) Integrative Analysis

Answer: D

118) Recognition of ethical issues that may arise in work to be performed is evidence of _____ in the CPA Guidelines for Ethical Behaviour.

- A) Adherence to Rules of Professional Conduct B) Enabling Competencies
C) Assessing the Situation D) Integrative Analysis

Answer: C

119) Anticipation of issues and identification of possible alternatives is evidence of _____ in the CPA Guidelines for Ethical Behaviour.

- A) Adherence to Rules of Professional Conduct B) Enabling Competencies
C) Assessing the Situation D) Integrative Analysis

Answer: D

120) Compilation of allowed and disallowed behaviours is evidence of _____ in the CPA Guidelines for Ethical Behaviour.

- A) Adherence to Rules of Professional Conduct B) Enabling Competencies
C) Conclude, Advise and Communicate D) Integrative Analysis

Answer: A

121) A clear and transparent decision based on the ethical analysis is evidence of _____ in the CPA Guidelines for Ethical Behaviour.

- A) Adherence to Rules of Professional Conduct B) Conclude, Advise and Communicate
C) Assessing the Situation D) Integrative Analysis

Answer: B

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

122) What process should a management accountant follow to resolve an ethical dilemma?

Answer: Follow the company's established policies for reporting unethical behaviour.

Consider discussing the issues with her manager, or if the issue is with her manager, with the supervisor i next managerial level. If the issue is with the CEO - notify the audit committee or board of directors.

Discuss the situation with an objective advisor.

Consult an attorney regarding regarding legal obligations and rights.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

123) The Sarbanes-Oxley Act was designed to hold corporations accountable for internal control and financial reporting functions.

Answer: True False

124) The Sarbanes-Oxley Act has significantly impacted the responsibility for financial reporting by publicly traded corporations.

Answer: True False

125) The Sarbanes-Oxley Act does not allow public accounting firms to provide certain non-audit services to clients during the same period they are providing audit services.

Answer: True False

126) Trends in the modern business environment include a shift to a service economy and the rise of the global marketplace.

Answer: True False

127) The decision to bill customers electronically, which saves the company money, would be a positive benefit when performing cost-benefit analysis.

Answer: True False

- 140) XBRL is essentially a
- A) new set of accounting standards.
 - B) new set of ethical standards.
 - C) new set of auditing standards.
 - D) tagging system which allows computer programs to extract information from financial reports.

Answer: D

- 141) Under Sarbanes-Oxley, what is the maximum number of years of imprisonment for knowingly destroying or creating documents to obstruct any federal investigation?
- A) 20 years
 - B) 15 years
 - C) 10 years
 - D) 5 years

Answer: A

- 142) Which reflects a philosophy of providing customers with superior products and services?
- A) TQM
 - B) IFRS
 - C) ERP
 - D) XBRL

Answer: A

- 143) What is the abbreviation of the name given to software systems that can integrate all departments?
- A) TQM
 - B) Total Integrated Software
 - C) ERP
 - D) JIT

Answer: C

- 144) What does ERP stand for?
- A) Enterprise Resource Partition
 - B) Expandable Resource Planning
 - C) Extensible Reporting Program
 - D) Enterprise Resource Planning

Answer: D

- 145) E-commerce refers to the
- A) production of superior goods and services.
 - B) quick delivery of goods and services.
 - C) exchange of information with customers and suppliers.
 - D) conduct of business on the internet.

Answer: D

- 146) Exchanging information to reduce costs, speed delivery, and improve quality is best described as
- A) ERP.
 - B) JIT.
 - C) Supply-chain management.
 - D) TQM.

Answer: C

- 147) Wonder Company is considering installing an ERP system. To make a good decision, Wonder needs to conduct a(n)
- A) JIT survey.
 - B) ISO 9001:2000 survey.
 - C) cost-benefit analysis.
 - D) TQM survey.

Answer: C

- 148) The "triple bottom line" focuses on what three factors that influence a firm's ability to survive and thrive in the long run?
- A) Profit, people, planet
 - B) Planet, profit, place
 - C) Profit, people, place
 - D) People, places, things

Answer: A

149) In recent years, there has been an increasing awareness and growing interest in _____ and social responsibility by both consumers and corporations.

- A) the bottom line
- C) sustainability

- B) just-in-time
- D) total quality management

Answer: C

150) How is sustainability defined?

- A) Reducing green-house gas emissions
- B) Achieving a reasonable rate of return for the current shareholders
- C) Meeting the needs of the present without compromising the ability of future generations to meet their own needs
- D) Maximizing the rate of return for the current shareholders

Answer: C

151) What is considered to be the latest competitive weapon in business?

- A) Time
- B) Money
- C) Human Resources
- D) Market Share

Answer: A

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

152) What does an "Integrated Report" contain?

Answer: Descriptions and measures of all material elements of value creation - not just those related to financial capital.

153) Besides financial capital, what other elements of value creation are included in an "Integrated Report"?

Answer: Manufactured, intellectual, human, social, and natural capital.

154) What are the advantages to implementing ERP systems?

Answer: Companies streamline their operations and save money.
Companies can respond more quickly to changes.
An ERP system can replace hundreds of separate software systems through out the company.

155) What is the major issue involved in implementing ERP systems?

Answer: ERP systems are expensive and require a large commitment of time and people.

MATCHING. Choose the item in column 2 that best matches each item in column 1.

Match the following:

- | | |
|--|---------------------------------------|
| 156) Exchange of information with suppliers to reduce costs, improve quality, and speed delivery of goods and services from suppliers to the company itself and on to customers.
Answer: E | A) SOX
B) IFRS
C) ISO
D) ERP |
| 157) A philosophy and business strategy of manufacturing without waste.
Answer: H | E) Supply-Chain Management
F) JIT |
| 158) Software systems that can integrate all of a company's worldwide functions, departments, and data into a single system.
Answer: D | G) XBRL
H) Lean production |
| 159) A data tagging system that enables companies to release financial and business information in a format that can be accessed over the internet.
Answer: G | |
| 160) An organization which supports and issues quality-related certifications.
Answer: C | |
| 161) A US law that enhances internal control and financial Reporting requirements and establishes new regulatory requirements for publicly traded companies and their independent auditors.
Answer: A | |
| 162) Set of standards which must be adopted for all publicly traded companies and may differ from ASPE/IFRS.
Answer: B | |
| 163) A system where production is triggered by orders (demand).
Answer: F | |

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

164) Lean production systems keep large inventories.

Answer: True False

165) Lean production cuts the throughput time of a manufacturing concern.

Answer: True False

166) Lean production may be regarded as a general philosophy of manufacturing without waste, rather than a particular type of manufacturing process.

Answer: True False

167) Lean production systems typically carry large inventories.

Answer: True False

168) Lean production systems typically arrange production activities in self-contained cells.

Answer: True False

169) Lean production systems typically strive for shorter setup times.

Answer: True False

170) Lean production systems typically have employees cross-trained to perform more than one activity.

Answer: True False

171) Lean production systems typically produce large batches.

Answer: True False

172) Lean production systems typically focus on lengthening the manufacturing cycle time.

Answer: True False

173) Lean production systems typically focus on strengthening supply-chain management.

Answer: True False

174) Lean production systems typically emphasize quality.

Answer: True False

175) Implementing Total Quality Management (TQM) is part of the ISO 9001:9008 quality standard.

Answer: True False

176) Shortened manufacturing cycle times is a feature of Total Quality Management.

Answer: True False

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

177) Which of the following pertains to a lean production system?

- A) It will require longer set-up times than a traditional system.
- B) It will require higher inventory levels than a traditional production system.
- C) It will produce goods in smaller batches than a traditional production system.
- D) It will have like machines grouped together.

Answer: C

- 178) Which of the following is TRUE about a lean production system?
- A) Raw materials are purchased in large quantities.
 - B) Finished goods are produced ahead of customers' orders to protect against running out of finished goods inventory.
 - C) Customer orders drive the production process.
 - D) Inventory levels are maintained at high levels.

Answer: C

- 179) The production system designed to eliminate waste is called a(n)
- A) activity-based system.
 - B) lean production system.
 - C) full costing system.
 - D) traditional system.

Answer: B

- 180) A system in which companies purchase raw materials only when needed is called
- A) Traditional production system
 - B) internal failure costs.
 - C) ABC.
 - D) JIT production.

Answer: D

- 181) Which term listed below describes a system where companies purchase raw materials when needed in production and complete finished goods when needed by customers?
- A) TQM
 - B) Traditional production system
 - C) Just-in-time inventory
 - D) Supply chain management

Answer: C

- 182) As part of _____, each business function examines its own activities and works to improve performance by continually setting higher goals.
- A) ISO 9001:9008
 - B) supply chain management
 - C) lean production
 - D) TQM

Answer: D

- 183) The philosophy and a business strategy of manufacturing without waste is referred to as
- A) TQM.
 - B) ISO 900.
 - C) lean production.
 - D) thin manufacturing.

Answer: C

- 184) Which of the following describes a system in which suppliers deliver materials at the time they are needed?
- A) ISO
 - B) TQM
 - C) ERP
 - D) JIT

Answer: D

- 185) ISO 9001:2008 is a(n)
- A) certification that a company complies with international quality standards.
 - B) system where production occurs only when needed.
 - C) effective exchange of information between vendors and customers.
 - D) software system which integrates all departments.

Answer: A

- 186) Companies that wish to demonstrate their commitment to international quality standards may become certified by what organization?
- A) IMA
 - B) ISO
 - C) SEC
 - D) IFRS

Answer: B

187) Throughput time is cut when which of the following methods is used?

- A) XBRL B) JIT C) IFRS D) ISO

Answer: B

188) The philosophy that centres on production as needed is known as

- A) ERP. B) JIT.
C) Supply-chain management. D) TQM.

Answer: B

189) The philosophy of providing superior goods and services is

- A) ERP. B) JIT.
C) Supply-chain management. D) TQM.

Answer: D

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

190) Identify and explain some of the reason why companies want to reduce inventory levels.

Answer: Inventories tie up cash
Large inventories may hide quality problems, production inefficiencies, and obsolescence
Storing and retrieving inventory is very expensive

191) In a lean production environment, employees working in production cells often do more than operate one machine. What additional tasks do they do?

Answer: Conduct maintenance
Perform setups
Inspect their own work
Operate other machines

192) Identify the common characteristics of a lean production system

Answer: Production occurs in self-contained cells
Broad employee roles
Batches produced Jus-in-Time
Reduced set-up times
Shortened Manufacturing Cycle Times
Emphasis on quality
Supply chain management

MATCHING. Choose the item in column 2 that best matches each item in column 1.

Match the following:

193) Quality tends to be "build-in" rather than "inspect-in."

Answer: B

A) Traditional

B) Lean

194) Manufacturing plants tend to be organized with self-contained production cells.

Answer: B

195) The company maintains lower quantities of raw materials, work in process, and finished goods inventories.

Answer: B

196) Set-up times are shorter.

Answer: B

197) High quality is stressed in every aspect of production.

Answer: B

198) Products are made in larger batches.

Answer: A

199) Emphasis is placed on shortening manufacturing cycle times.

Answer: B

200) Manufacturing plants tend to group like machinery together in different parts of the plant.

Answer: A

201) Set-up times are longer.

Answer: A

202) The company maintains high inventory levels to guarantee supply.

Answer: A

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

203) Appraisal costs are incurred to detect poor-quality goods or services.

Answer: True False

- 204) Internal failure costs occur when the company detects and corrects poor-quality goods or services after delivery to customers.
 Answer: True False
- 205) Inspection of incoming raw materials and production loss caused by downtime are examples of prevention costs.
 Answer: True False
- 206) Internal failure costs occur when poor-quality goods or services are not detected until after delivery to customers.
 Answer: True False
- 207) Product testing is a prevention cost.
 Answer: True False
- 208) An example of an appraisal cost is the cost of automating the production process.
 Answer: True False
- 209) The cost of training employees would be classified as an external failure cost.
 Answer: True False
- 210) An example of a prevention cost is the cost of redesigning the product to reduce its complexity.
 Answer: True False
- 211) Prevention and appraisal costs are sometimes referred to as "conformance costs."
 Answer: True False
- 212) The production cost of a unit found to be defective during inspection is an appraisal cost.
 Answer: True False
- 213) The production cost of a unit found to be defective during inspection is an internal failure cost.
 Answer: True False

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 214) Which of the following cost items should be classified as a prevention cost on a cost of quality report?
 A) Net cost of spoiled units
 B) Supervision of quality inspections
 C) Technical support provided to employees
 D) Warranty expenses on defective products
 Answer: C
- 215) Which of the following cost items should be classified as an internal failure cost on a cost of quality report?
 A) Training for quality control employees
 B) Customer returns of defective products
 C) Patent cost for a new product
 D) Net cost of scrap
 Answer: D
- 216) Which of the following cost items should be classified as an external failure cost on a cost of quality report?
 A) Technical support provided to suppliers
 B) Net cost of scrap
 C) Customer returns of defective products
 D) Supplies used in the quality inspection program
 Answer: C

- 217) Warranty costs are classified as
- | | |
|----------------------------|----------------------------|
| A) Internal Failure Costs. | B) Prevention Costs. |
| C) Appraisal Costs. | D) External Failure Costs. |
- Answer: D
- 218) If a company were to increase its appraisal costs by inspecting more units as the units are completed, the company's internal failure costs
- | | |
|-----------------------------------|----------------------------|
| A) would usually decrease. | B) would usually increase. |
| C) would usually remain the same. | D) could not be predicted. |
- Answer: B
- 219) If a company were to increase its appraisal costs by inspecting more units as the units are completed, the company's external failure costs
- | | |
|-----------------------------------|----------------------------|
| A) would usually decrease. | B) would usually increase. |
| C) would usually remain the same. | D) could not be predicted. |
- Answer: A
- 220) The cost of supplier evaluation from a supplier would be classified as a(n)
- | | |
|---------------------------|---------------------------|
| A) prevention cost. | B) appraisal cost. |
| C) internal failure cost. | D) external failure cost. |
- Answer: A
- 221) The cost of maintaining testing equipment would be classified as a(n)
- | | |
|---------------------------|---------------------------|
| A) prevention cost. | B) appraisal cost. |
| C) internal failure cost. | D) external failure cost. |
- Answer: A
- 222) The cost of downtime caused by quality problems with the raw materials would be classified as a(n)
- | | |
|---------------------------|---------------------------|
| A) prevention cost. | B) appraisal cost. |
| C) internal failure cost. | D) external failure cost. |
- Answer: C
- 223) The cost of fixing defective units found during the quality inspections would be classified as a(n)
- | | |
|---------------------------|---------------------------|
| A) prevention cost. | B) appraisal cost. |
| C) internal failure cost. | D) external failure cost. |
- Answer: C
- 224) The cost of training quality control supervisors would be classified as a(n)
- | | |
|---------------------------|---------------------------|
| A) prevention cost. | B) appraisal cost. |
| C) internal failure cost. | D) external failure cost. |
- Answer: B
- 225) Which of the following is one of the four cost categories typically found on a cost of quality report?
- | | |
|---------------------|----------------------------|
| A) Prevention costs | B) Development costs |
| C) Marketing costs | D) Inventory failure costs |
- Answer: A

226) Which of the following refers to costs incurred in detecting poor quality goods or services?

- A) Internal failure costs
- B) External failure costs
- C) Prevention costs
- D) Appraisal costs

Answer: D

227) What costs are incurred to avoid poor quality goods or services in the first place?

- A) Appraisal costs
- B) Prevention costs
- C) Internal failure costs
- D) External costs

Answer: B

228) The costs incurred when poor quality goods or services are detected and corrected before delivery to customers are called

- A) internal failure costs.
- B) prevention costs.
- C) appraisal costs.
- D) external failure costs.

Answer: A

229) The cost of inspection at various stages of production is an example of a(n)

- A) internal failure cost.
- B) prevention cost.
- C) appraisal cost.
- D) external failure cost.

Answer: C

230) The cost of warranty work is an example of a(n)

- A) external failure cost.
- B) appraisal cost.
- C) internal failure cost.
- D) prevention cost.

Answer: A

231) The cost of evaluating potential raw material suppliers is an example of a(n)

- A) appraisal cost.
- B) prevention cost.
- C) internal failure cost.
- D) external failure cost.

Answer: B

232) The cost of improved production equipment and production processes is a(n)

- A) appraisal cost.
- B) external failure cost.
- C) internal failure cost.
- D) prevention cost.

Answer: D

233) The cost of product liability claims is an example of a(n)

- A) external failure cost.
- B) internal failure cost.
- C) prevention cost.
- D) appraisal cost.

Answer: A

234) The lost profits from lost customers are an example of

- A) appraisal costs.
- B) prevention costs.
- C) internal failure costs.
- D) external failure costs.

Answer: D

235) The cost of training production personnel on their job tasks is an example of a(n)

- A) external failure cost.
- B) appraisal cost.
- C) internal failure cost.
- D) prevention cost.

Answer: D

236) Production loss caused by downtime is an example of what type of cost?

- A) Appraisal cost
- B) Prevention cost
- C) Internal failure cost
- D) External failure cost

Answer: C

237) Costs incurred to detect poor quality goods and services refer to

- A) appraisal costs.
- B) activity-based costing.
- C) value engineering.
- D) prevention costs.

Answer: A

238) Costs incurred to avoid poor quality goods or services are considered

- A) appraisal costs.
- B) activity-based costing.
- C) value engineering.
- D) prevention costs.

Answer: D

239) Which of the following terms best describes costs incurred to avoid poor quality goods or services?

- A) Appraisal costs
- B) Activity-based costing
- C) Value engineering
- D) Prevention costs

Answer: D

240) Which of the following terms best describes costs incurred to detect poor quality goods or services?

- A) Appraisal costs
- B) Activity-based costing
- C) Value engineering
- D) Prevention costs

Answer: A

241) Which term listed below describes costs incurred when the company detects poor quality goods or services before delivery to the customer?

- A) Lean production
- B) External failure costs
- C) Internal failure costs
- D) Value added activity

Answer: C

242) Which term listed below describes costs incurred when the company fails to detect poor quality goods or services?

- A) Value-added activity
- B) Just-in-time production
- C) External failure costs
- D) Internal failure costs

Answer: C

243) Which term below best describes the quality cost category for "cost to re-inspect reworked food processors"?

- A) Prevention costs
- B) Appraisal costs
- C) Internal failure costs
- D) External failure costs

Answer: C

244) Which term below best describes the quality cost category for "cost of warranty repairs on food processors"?

- A) Prevention costs
- B) Appraisal costs
- C) Internal failure costs
- D) External failure costs

Answer: D

- 245) Which term below best describes the quality cost category for "cost of testing food processors before sale"?
- A) Prevention costs
 - B) Appraisal costs
 - C) Internal failure costs
 - D) External failure costs

Answer: B

- 246) Which term below best describes the quality cost category for "preventive maintenance on machinery"?
- A) Prevention costs
 - B) Appraisal costs
 - C) Internal failure costs
 - D) External failure costs

Answer: A

- 247) Which term below best describes the quality cost category for "lost profits from lost sales"?
- A) Prevention costs
 - B) Appraisal costs
 - C) Internal failure costs
 - D) External failure costs

Answer: D

- 248) What external failure cost is very difficult to estimate?
- A) Warranty Costs
 - B) Cost of service calls
 - C) Sales returns and allowances
 - D) Lost profits from lost customers

Answer: D

Use the information below to answer the following question(s).

Dylan Products has a budget of \$1,200,000 in 202X for prevention costs. If it decides to automate a portion of its prevention activities will save \$90,000 in variable prevention costs. The new method will require \$40,000 in training costs and \$150,000 in annual equipment costs. Management is willing to adjust the budget for an amount up to the cost of the new equipment. The budgeted production is 210,000 units.

Appraisal costs for the year are budgeted at \$500,000. The new prevention procedures will save appraisal costs of \$50,000. Internal failure costs average \$20 per failed unit of finished goods. The internal failure rate is expected to be 4% of all completed items. The proposed changes will cut the internal failure rate by one-half. Internal failure units are destroyed. External failure costs average \$48 per failed unit. The company's average external failures average 2.5% of units sold. The new proposal will reduce this rate to 1%. Assume all units produced are sold and there are no ending inventories.

- 249) What is the net change in the budget of prevention costs if the procedures are automated in 202X? Will management agree with the changes?
- A) \$90,000 increase, no
 - B) \$90,000 decrease, yes
 - C) \$190,000 increase, no
 - D) \$100,000 decrease, yes
 - E) \$100,000 increase, yes

Answer: E

- 250) How much will appraisal costs change assuming that the new prevention methods reduce material failures by 30% in the appraisal phase?
- A) \$229,000 decrease
 - B) \$50,000 decrease
 - C) \$84,000 decrease
 - D) \$150,000 decrease
 - E) \$50,000 increase

Answer: B

251) How much will internal failure costs change with the new procedures?

- A) \$ 84,000 increase
- B) \$ 84,000 decrease
- C) \$126,000 decrease
- D) \$168,000 decrease
- E) \$50,000 decrease

Answer: B

252) How much do external failure costs change if all the changes are as the new prevention procedures anticipated? Assume all units produced are sold and there are no ending inventories.

- A) \$151,200 decrease
- B) \$158,900 decrease
- C) \$100,800 decrease
- D) \$126,000 decrease
- E) \$156,400 decrease

Answer: A

253) Try-Us-First Motors manufactures and sells off-road vehicles. The September sales were \$6,000,000. Monthly design costs are \$112,000 and rework is running at \$75,000 per month. Its painting department is fully automated and requires substantial inspection to keep the machines operating properly. An improperly painted vehicle is very expensive to correct, and inspection hours for the 8,000 vehicles painted in September totaled 2,000 hours by 14 employees, who earn an average of \$28 an hour. Ten litres of paint were used on average for each vehicle. The standard amount of paint per vehicle is nine litres. .

What are appraisal costs as a percentage of sales?

- A) 2.20%
- B) 2.80%
- C) 0.93%
- D) 1.87%
- E) 1.25%

Answer: C

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

254) The CEO of Oakville Machine Parts (OMP) is concerned with the quality of its products and the amount of resources currently spent on customer returns. The CEO would like to analyze the costs incurred in conjunction with the quality of the product.

The following information was collected from various departments within the company:

Warranty returns	\$240,000
Training personnel	20,000
Litigation on product liability claims	350,000
Inspecting 10% of final products	10,000
Rework	20,000
Production loss due to machine breakdowns	90,000
Inspection of raw materials	10,000

Required:

- A. Complete the Cost of Quality Report.
- B. Do any additional subjective costs appear to be missing from the report?
- C. What can be learned from the report?

	Costs Incurred	Total Costs of Quality	Percentage of Total Costs of Quality
Prevention Costs:			
Personnel training			

Personnel training			
Total prevention costs			
Appraisal Costs:			
Inspecting raw materials			
Inspecting 10% of final products			
Total appraisal costs			
Internal Failure Costs:			
Rework			
Production loss due to machine breakdown			
Total internal failure costs			
External Failure Costs:			
Litigation costs from product liability claims			
Warranty return costs			
Total external failure costs			
Total costs of quality			

Answer: Requirement A:

	Costs Incurred	Total Costs of Quality	Percentage of Total Costs of Quality
Prevention Costs:			
Personnel training	\$20,000		
Total prevention costs		\$20,000	3%
Appraisal Costs:			
Inspecting raw materials	\$10,000		
Inspecting 10% of final products	\$10,000		
Total appraisal costs		\$20,000	3%
Internal Failure Costs:			
Rework	\$20,000		
Production loss due to machine breakdown	\$90,000		
Total internal failure costs		\$110,000	15%
External Failure Costs:			
Litigation costs from product liability claims	\$350,000		
Warranty return costs	\$240,000		
Total external failure costs		\$590,000	79%
Total costs of quality		\$740,000	100%

Requirement B:

Because the company has warranty returns and litigation costs it is possible that it has a reputation for poor

Answer: quality. This may be resulting in lost sales and hence lost profits.

Requirement C:

The Cost of Quality report shows that little is being spent on prevention and maintenance.

255) The CEO of Prairie Machine Parts (PMP) is concerned with the quality of its products and the amount of resources currently spent on customer returns. The CEO would like to analyze the costs incurred in conjunction with the quality of the product.

The following information was collected from various departments within the company:

Warranty returns	\$144,000
Training personnel	120,000
Litigation on product liability claims	210,000
Inspecting 10% of final products	6,000
Rework	12,000
Production loss due to machine breakdowns	54,000
Inspection of raw materials	6,000

Required:

- A. Complete the Cost of Quality Report.
- B. Do any additional subjective costs appear to be missing from the report?
- C. What can be learned from the report?

	Costs Incurred	Total Costs of Quality	Percentage of Total Costs of Quality
Prevention Costs:			
Total prevention costs			
Appraisal Costs:			
Total appraisal costs			
Internal Failure Costs:			
Total internal failure costs			
External Failure Costs:			
Total external failure costs			
Total costs of quality			

Answer: Requirement A:

	Costs Incurred	Total Costs of Quality	Percentage of Total Costs of Quality
Prevention Costs:			
Personnel training	\$12,000		
Total prevention costs		\$12,000	3%
Appraisal Costs:			
Inspecting raw materials	\$6,000		
Inspecting 10% of final products	\$6,000		
Total appraisal costs		\$12,000	3%
Internal Failure Costs:			
Rework	\$12,000		
Production loss due to machine breakdown	\$54,000		
Total internal failure costs		\$66,000	15%
External Failure Costs:			
Litigation costs from product liability claims	\$210,000		
Warranty return costs	\$144,000		
Total external failure costs		\$354,000	79%
Total costs of quality		\$444,000	100%

Requirement B:

Because the company has warranty returns and litigation costs it is possible that it has a reputation for poor quality. This may be resulting in lost sales and hence lost profits.

Requirement C:

The Cost of Quality report shows that little is being spent on prevention and maintenance.

- 256) The CEO of Yuppie Prepared Meals is concerned about the amount of resources currently spent on customer warranty claims. Each box of snacks is printed with the guarantee: "Satisfaction guaranteed or your money back." Since the claims are so high, she would like to evaluate what costs are being incurred to ensure the quality of the product. The following information was collected from various departments within the company:

Warranty claims	\$210,000
Cost of defective products found at the inspection point	47,000
Training factory personnel	13,000
Recall of Batch #59374	87,500
Inspecting products when halfway through the production process	27,500
Cost of disposing of rejected products	6,000
Preventive maintenance on factory equipment	3,500
Production loss due to machine breakdowns	7,500
Inspection of raw materials	2,500

As the new cost accountant, the CEO has requested that you complete the following Cost of Quality Report:

	Costs Incurred	Total Costs of Quality	Percentage of Total Costs of Quality
Prevention Costs:			

Prevention Costs:			
Total prevention costs			
Appraisal Costs:			
Total appraisal costs			
Internal Failure Costs:			
Total Internal Failure costs			
External Failure Costs:			
Total external failure costs			
Total costs of quality			

Answer:

	Costs Incurred	Total Costs of Quality	Percentage of Total Costs of Quality
Prevention Costs:			
Personnel training	\$13,000		
Preventative maintenance on factory equipment	\$3,500		
Total prevention costs		\$16,500	4%
Appraisal Costs:			
Mid-point inspection	\$27,500		
Inspection of raw materials	\$2,500		
Total appraisal costs		\$30,000	7%
Internal Failure Costs:			
Cost of defective products found at the inspection point	\$47,000		
Cost of disposing of defective product	\$6,000		
Production loss due to machine breakdowns	\$7,500		
Total Internal Failure Costs		\$60,500	15%
External Failure Costs:			
Warranty claims	\$210,000		
Cost of recall	\$87,500		
Total external failure costs		\$297,500	74%
Total costs of quality		\$404,500	100%

257) The CEO of Yuppie Prepared Meals is concerned about the amount of resources currently spent on customer warranty claims. Each box of snacks is printed with the guarantee: "Satisfaction guaranteed or your money back." Since the claims are so high, she would like to evaluate what costs are being incurred to ensure the quality of the product. The following information was collected from various departments within the company:

Warranty claims	\$315,000
Cost of defective products found at the inspection point	70,000
Training factory personnel.	20,000
Recall of Batch #59374	130,000
Inspecting products when halfway through the production process	45,000
Cost of disposing of rejected products	9,000
Preventive maintenance on factory equipment	5,000
Production loss due to machine breakdowns	12,000
Inspection of raw materials	4,000

Required:

- 1 - Complete a cost of quality report.
- 2 - The CEO has determined that if prevention costs are increased by \$55,000, external failure costs will be reduced 20%. What would be the impact on Yuppie Prepared Meals and should they do it?
- 3 - The CEO has determined that if prevention costs are increased by \$55,000, both internal and external failure costs would be reduced by 10%. What would be the impact on Yuppie, and should they do it (consider all costs of quality)?

	Costs Incurred	Total Costs of Quality	Percentage of Total Costs of Quality
Prevention Costs:			
Total prevention costs			
Appraisal Costs:			
Total appraisal costs			
Internal Failure Costs:			
Total Internal Failure costs			
External Failure Costs:			
Total external failure costs			
Total costs of quality			

Answer:

	Costs Incurred	Total Costs of Quality	Percentage of Total Costs of Quality
Prevention Costs:			
Personnel training	\$20,000		
Preventative maintenance on factory equipment	\$5,000		
Total prevention costs		\$25,000	4%
Appraisal Costs:			
Mid-point inspection	\$45,000		
Inspection of raw materials	\$4,000		
Total appraisal costs		\$49,000	8%
Internal Failure Costs:			
Cost of defective products found at the inspection point	\$70,000		
Cost of disposing of defective products	\$9,000		
Production loss due to machine breakdowns	\$12,000		
Total Internal Failure Costs		\$91,000	15%
External Failure Costs:			
Warranty claims	\$315,000		
Cost of recall	\$130,000		
Total external failure costs		\$445,000	73%
Total costs of quality		\$610,000	100%

2 - Increase Prevention Cost		\$55,000
External Failure cost savings	$\$445,000 \times 20\%$	<u>(89,000)</u>
Net Savings		<u>\$44,000</u>

They should implement the change

3 - Increase Prevention Cost		\$55,000
Internal and External Failure cost savings $(\$91,000 + 445,000) \times 20\%$		<u>(53,600)</u>
Net Cost		<u>\$ 1,400</u>

Based on the identifiable costs of quality they may argue that they should not implement the change, how lost sales due to poor quality is an unknown amount. Yuppie may gain sales with an improvement in qual

258) Carl Clarkson and Lenny Lenid have been assigned to review the costs of quality at the Sprotton Chemicals Ltd. for the month of September. All amounts are in thousands (000's).

Cost Item	Amount
Product testing	\$350
Clean up of toxic spills within the plant	\$14,200
Employee training	\$200
Quality Engineering	\$675
Supplies used in testing	\$500
Statistical Process Control	\$1,750
Payments on lawsuits from product failures	\$25,000

Some information from a competitor, Sheltonville Industries, has been leaked. You learn that Sheltonville's costs quality (as a percentage of total costs of quality) is 15% on external failure, 20% on internal failure, 35% on appra

the rest on prevention.

Required:

- a. Prepare a cost of quality report for September for the Sprotton Chemicals including calculations of each cost category as a percentage of total costs of quality.
- b. Compare Sprotton's approach to quality management to Sheltonville's. Comment on your findings. (What are the implications of the differences?)

Answer: a.

	Sprotton Sept	% of Cost	Sheltonville
<i>Prevention:</i>			
Quality Engineering	\$675		
Employee Training	\$200		
Statistical Process Control	\$1,750		
Total Prevention Costs	\$2,625	6.15%	30.00%
<i>Appraisal:</i>			
Product Testing	\$350		
Supplies used in Testing	\$500		
Total Appraisal Costs	\$850	1.99%	35.00%
<i>Internal Failure:</i>			
Cleanup of toxic spills in plant	\$14,200		
Total Internal Failure	\$14,200	33.27%	20.00%
<i>External Failure:</i>			
Lawsuits	\$25,000		
Total External Failure	\$25,000	58.58%	15.00%
Total Costs of Quality	\$42,675		

b.

There is a distinct difference as to the distribution of the costs of quality between the two organizations. Sheltonville invests more in upstream costs (65% in prevention and appraisal costs) compared to Sprotton (8.14%). Failures downstream are generally more costly in terms of both actual costs (product costs are incurred when units fail and external failure costs tend to be high) and the opportunity costs from lost sales.

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

259) Cari and Jereme just bought a bed and breakfast inn at a very attractive price. The business had been doing poorly. Before they reopened the inn for business, they attended a seminar on operating a high quality business. Now that they are ready to open the inn, they need some advice on quality costs and management.

Required:

Identify four categories of quality costs. In addition, identify three items that would be classified in each of the categories.

Answer: Prevention:

- Hiring employees with good references.
- Training of owners and employees.
- Good security.
- Good reservation system.
- Purchasing quality furniture.

Appraisal:

- Verifying accuracy of reservation and registration procedures.
- Inspecting rooms, facilities, building and grounds regularly.
- Observing activities of employees.
- Testing furniture and fixtures.
- Taste testing food.

Internal failure:

- Recleaning rooms and facilities.
- Restocking rooms with linens, glasses, etc.
- Out of stock supplies.
- Reinspection.
- Failure to bill on a timely basis.

External failure:

- Responding to complaints about rooms and food.
- Responding to complaints about reservations.
- Emergency cleaning of rooms when not ready on time.
- Customer refunds because of unsatisfactory conditions.
- Opportunity cost of lost revenue resulting from unhappy customers.