ANSWERS TO QUESTIONS

1. (a) This is incorrect. Standard costs are predetermined unit costs.
(b) Agree. Examples of governmental regulations that establish standards for a business are the Fair Labor Standards Act, the Equal Employment Opportunity Act, and a multitude of environmental laws.

2. (a) Standards and budgets are similar in that both are predetermined costs and both contribute significantly to management planning and control. The two terms differ in that a standard is a unit amount and a budget is a total amount.
(b) There are important accounting differences between budgets and standards. Except in the application of manufacturing overhead to jobs and processes, budget data are not journalized in cost accounting systems. In contrast, standard costs may be incorporated into cost accounting systems. It is possible for a company to report inventories at standard costs in its financial statements, but it is not possible to report inventories at budgeted costs.

3. In addition to facilitating management planning, standard costs offer the following advantages to an organization:
(1) They promote greater economy by making employees more "cost-conscious."
(2) They may be useful in setting selling prices.
(3) They contribute to management control by providing a basis for evaluating cost control.
(4) They are useful in highlighting variances in "management by exception."
(5) They simplify the costing of inventories and reduce clerical costs.

4. The management accountant provides input to the setting of standards through the accumulation of historical cost data and knowledge of the behavior of costs in response to changes in activity levels. Management has the responsibility for setting the standards.

5. Ideal standards represent optimum levels of performance under perfect operating conditions. Normal standards represent efficient levels of performance that is attainable under expected operating conditions.

6. (a) The direct materials price standard should be based on the purchasing department's best estimate of the cost of raw materials and an amount for related costs such as receiving, storing, and handling.
(b) The direct materials quantity standard should be based on both quality and quantity requirements plus allowances for unavoidable waste and normal spoilage.

7. Agree. The direct labor quantity standard should include allowances for rest periods, cleanup, machine setup, and machine downtime.

8. With standard costs, the predetermined overhead rate is determined by dividing budgeted overhead costs by an expected standard activity index.

9. A favorable cost variance has a positive connotation. It suggests efficiencies in incurring manufacturing costs and in using direct materials, direct labor, and manufacturing overhead. An unfavorable cost variance has a negative connotation. It suggests that too much was paid for one or more of the manufacturing cost elements or that the elements were used inefficiently.

10. (a) (1) actual price. (2) standard price.
(b) (3) actual quantity. (4) standard price.
(c) (5) standard price. (6) standard quantity.

11. (1) – (3) = total labor variance; (1) – (2) = labor price variance; and (2) – (3) = labor quantity variance.

12. Overhead applied = $8 X 27,000 = $216,000.

13. Variances should be reported to appropriate levels of management as soon as possible. The principle of "management by exception" may be used with variance reports.

14. The purchasing department would be responsible for an unfavorable materials price variance when it paid more than the standard price for the materials. The purchasing department would also be responsible for an unfavorable materials quantity variance if it purchased materials of inferior quality which caused an excess use of materials.

15. The four perspectives of the balanced scorecard are: financial, customer, internal process, and learning and growth. The financial perspective employs financial measures of performance used by most firms. The customer perspective evaluates how well the company is performing from the viewpoint of those people who buy and use its product in terms of price, quality, product innovation, customer service, and other dimensions. The internal process perspective evaluates the value chain—product development, production, delivery and after-sale service—to ensure that the company is operating effectively and efficiently. The learning and growth perspective evaluates how well the company develops and retains its employees. The four perspectives are linked in that the results in one perspective influence the results in the next.

16. Ron Ely is not correct. The balanced scorecard does not replace financial measures, it instead integrates both financial and nonfinancial measures. In fact, financial measures are very critical to the balanced scorecard, since they represent the final "destination" of all the company's efforts.

17. The possibilities for nonfinancial measures are limitless. Some that were mentioned in the chapter were: capacity utilization of plants, average age of key assets, impact of strikes, brand-loyalty statistics, market profile of customer-end products, number of new products, employee stock ownership percentages, number of scientists and technicians used in R&D, customer satisfaction data, factors affecting customer product selection, number of patents and trademarks held, customer brand awareness, number of ATMs by state, number of products used by average customer, percentage of customer service calls handled by interactive voice response units, personnel cost per employee, credit card retention rates.

18. (a) Variances are reported in income statements for management below gross profit which is reported at standard costs. Each variance is identified and the total variance is shown.
(b) Standard costs may be used in costing inventories when there is no significant difference between actual costs and standard costs. When there are significant differences, actual costs must be reported.

***19.** (a) A standard cost accounting system is a double-entry system of accounting in which standard costs are used in making entries and standard cost variances are formally recognized in the accounts.

(b) The variance account will have: (1) a debit balance when the materials price variance is unfavorable and (2) a credit balance when the labor quantity variance is favorable.

***20.** Overhead controllable variance = actual overhead costs ($218,000) – overhead budgeted. Overhead budgeted is based on standard hours allowed as follows: variable costs (27,000 X $5 = $135,000) + fixed costs (28,000 X $3 = $84,000) = total budgeted ($219,000). Thus, the controllable variance is $1,000 favorable.

***21.** The purpose of computing the overhead volume variance is to determine whether plant facilities were efficiently used during the period. The basic formula is fixed overhead rate X (normal capacity – standard hours allowed).

***22.** Fixed costs remain the same at every level of activity within the relevant range. Since the predetermined overhead rate is based on normal capacity, it follows that if standard hours allowed are less than standard hours at normal capacity, fixed overhead costs will be underapplied. The reverse is true when production exceeds normal capacity.

***23.** Rick should include the following points about overhead variances:

(1) Standard hours allowed are used in each of the variances.
(2) Budgeted costs for the controllable variance are derived from the flexible budget.
(3) The controllable variance generally pertains to variable costs.
(4) The volume variance pertains solely to fixed costs.

