

# Exam 3 chapters 8-10And12 Garrison14ed

*Student:* \_\_\_\_\_

1. Which of the following is not a benefit of budgeting?
  - A. It reduces the need for tracking actual cost activity.
  - B. It sets benchmarks for evaluation performance.
  - C. It uncovers potential bottlenecks.
  - D. It formalizes a manager's planning efforts.
  
2. A continuous (or perpetual) budget:
  - A. is prepared for a range of activity so that the budget can be adjusted for changes in activity.
  - B. is a plan that is updated monthly or quarterly, dropping one period and adding another.
  - C. is a strategic plan that does not change.
  - D. is used in companies that experience no change in sales.
  
3. Which of the following statements is not correct?
  - A. The sales budget is the starting point in preparing the master budget.
  - B. The sales budget is constructed by multiplying the expected sales in units by the sales price.
  - C. The sales budget generally is accompanied by a computation of expected cash receipts for the forthcoming budget period.
  - D. The cash budget must be prepared prior to the sales budget because managers want to know the expected cash collections on sales made to customers in prior periods before projecting sales for the current period.

4. Budgeted production needs are determined by:
  - A. adding budgeted sales in units to the desired ending inventory in units and deducting the beginning inventory in units from this total.
  - B. adding budgeted sales in units to the beginning inventory in units and deducting the desired ending inventory in units from this total.
  - C. adding budgeted sales in units to the desired ending inventory in units.
  - D. deducting the beginning inventory in units from budgeted sales in units.
  
5. The budgeted amount of raw materials to be purchased is determined by:
  - A. adding the desired ending inventory of raw materials to the raw materials needed to meet the production schedule.
  - B. subtracting the beginning inventory of raw materials from the raw materials needed to meet the production schedule.
  - C. adding the desired ending inventory of raw materials to the raw materials needed to meet the production schedule and subtracting the beginning inventory of raw materials.
  - D. adding the beginning inventory of raw materials to the raw materials needed to meet the production schedule and subtracting the desired ending inventory of raw materials.

6. Shown below is the sales forecast for Cooper Inc. for the first four months of the coming year.

	Jan	Feb	Mar	Apr
Cash sales .....	\$15,000	\$24,000	\$18,000	\$14,000
Credit sales .....	\$100,000	\$120,000	\$90,000	\$70,000

On average, 50% of credit sales are paid for in the month of the sale, 30% in the month following sale, and the remainder are paid two months after the month of the sale. Assuming there are no bad debts, the expected cash inflow in March is:

- A. \$138,000
- B. \$122,000
- C. \$119,000
- D. \$108,000

7. The following data have been taken from the budget reports of Brandon company, a merchandising company.

	Purchases	Sales
January .....	\$160,000	\$100,000
February .....	\$160,000	\$200,000
March.....	\$160,000	\$240,000
April.....	\$140,000	\$300,000
May .....	\$140,000	\$260,000
June .....	\$120,000	\$240,000

Forty percent of purchases are paid for in cash at the time of purchase, and 30% are paid for in each of the next two months. Purchases for the previous November and December were \$150,000 per month. Employee wages are 10% of sales for the month in which the sales occur. Selling and administrative expenses are 20% of the following month's sales. (July sales are budgeted to be \$220,000.) Interest payments of \$20,000 are paid quarterly in January and April. Brandon's cash disbursements for the month of April would be:

- A. \$140,000
  - B. \$254,000
  - C. \$200,000
  - D. \$248,000
8. Walsh Company expects sales of Product W to be 60,000 units in April, 75,000 units in May and 70,000 units in June. The company desires that the inventory on hand at the end of each month be equal to 40% of the next month's expected unit sales. Due to excessive production during March, on March 31 there were 25,000 units of Product W in the ending inventory. Given this information, Walsh Company's production of Product W for the month of April should be:
- A. 60,000 units
  - B. 65,000 units
  - C. 75,000 units
  - D. 66,000 units

9. Prestwich Company has budgeted production for next year as follows:

	Quarter			
	First	Second	Third	Fourth
Production in units .....	60,000	80,000	90,000	70,000

Two pounds of material A are required for each unit produced. The company has a policy of maintaining a stock of material A on hand at the end of each quarter equal to 25% of the next quarter's production needs for material A. A total of 30,000 pounds of material A are on hand to start the year. Budgeted purchases of material A for the second quarter would be:

- A. 82,500 pounds
- B. 165,000 pounds
- C. 200,000 pounds
- D. 205,000 pounds

10. Avitia Inc. bases its manufacturing overhead budget on budgeted direct labor-hours. The direct labor budget indicates that 3,700 direct labor-hours will be required in September. The variable overhead rate is \$5.70 per direct labor-hour. The company's budgeted fixed manufacturing overhead is \$48,100 per month, which includes depreciation of \$5,550. All other fixed manufacturing overhead costs represent current cash flows. The company recomputes its predetermined overhead rate every month. The predetermined overhead rate for September should be:

- A. \$5.70
- B. \$13.00
- C. \$18.70
- D. \$17.20

Brarin Corporation is a small wholesaler of gourmet food products. Data regarding the store's operations follow:

- Sales are budgeted at \$340,000 for November, \$360,000 for December, and \$350,000 for January.
- Collections are expected to be 55% in the month of sale, 44% in the month following the sale, and 1% uncollectible.
- The cost of goods sold is 80% of sales.
- The company would like to maintain ending merchandise inventories equal to 70% of the next month's cost of goods sold. Payment for merchandise is made in the month following the purchase.
- Other monthly expenses to be paid in cash are \$23,100.
- Monthly depreciation is \$21,000.
- Ignore taxes.

Statement of Financial Position  
October 31

<b>Assets</b>	
Cash.....	\$ 22,000
Accounts receivable (net of allowance for uncollectible accounts).....	77,000
Merchandise inventory.....	190,400
Property, plant and equipment (net of \$452,000 accumulated depreciation).....	<u>934,000</u>
<b>Total assets</b> .....	<b><u>\$1,223,400</u></b>
 <b>Liabilities and Stockholders' Equity</b>	
Accounts payable.....	\$ 281,000
Common stock.....	620,000
Retained earnings.....	<u>322,400</u>
<b>Total liabilities and stockholders' equity</b> .....	<b><u>\$1,223,400</u></b>

11. Expected cash collections in December are:

- A. \$360,000
- B. \$149,600
- C. \$198,000
- D. \$347,600

12. The purpose of a flexible budget is to:

- A. remove items from performance reports that are not controllable by managers.
- B. permit managers to reduce the number of unfavorable variances that are reported.
- C. update the static planning budget to reflect the actual level of activity of the period.
- D. reduce the amount of conflict between departments when the master budget is prepared.

13. 21 Salyers Family Inn is a bed and breakfast establishment in a converted 100-year-old mansion. The Inn's guests appreciate its gourmet breakfasts and individually decorated rooms. The Inn's overhead budget for the most recent month appears below

Activity level.....	57 guests
Variable overhead costs:	
Supplies.....	\$ 148.20
Laundry.....	216.60
Fixed overhead costs:	
Utilities.....	170.00
Salaries and wages.....	4,310.00
Depreciation.....	<u>2,340.00</u>
Total overhead cost.....	<u>\$7,184.80</u>

The Inn's variable overhead costs are driven by the number of guests.

What would be the total budgeted overhead cost for a month if the activity level is 53 guests?

- A. \$7,159.20
- B. \$6,680.60
- C. \$7,184.80
- D. \$26,154.40

14. Stock Manufacturing Corporation has prepared the following overhead budget for next month.

Activity level.....	6,900	machine-hours
Variable overhead costs:		
Supplies.....	\$21,390	
Indirect labor.....	41,400	
Fixed overhead costs:		
Supervision.....	14,600	
Utilities.....	3,500	
Depreciation.....	<u>6,700</u>	
Total overhead cost.....	<u>\$87,590</u>	

The company's variable overhead costs are driven by machine-hours.

What would be the total budgeted overhead cost for next month if the activity level is 6,600 machine-hours rather than 6,900 machine-hours?

- A. \$84,321.00
  - B. \$87,590.00
  - C. \$84,860.00
  - D. \$83,781.74
15. Clovis Midwifery's cost formula for its wages and salaries is \$2,680 per month plus \$245 per birth. For the month of September, the company planned for activity of 118 births, but the actual level of activity was 121 births. The actual wages and salaries for the month was \$33,290. The wages and salaries in the flexible budget for September would be closest to:
- A. \$32,393
  - B. \$31,590
  - C. \$32,325
  - D. \$33,290



16. Orscheln Snow Removal's cost formula for its vehicle operating cost is \$2,800 per month plus \$381 per snow-day. For the month of February, the company planned for activity of 17 snow-days, but the actual level of activity was 14 snow-days. The actual vehicle operating cost for the month was \$7,920. The activity variance for vehicle operating cost in February would be closest to:
- A. \$1,357 F
  - B. \$1,357 U
  - C. \$1,143 F
  - D. \$1,143 U
17. Sissac Catering uses two measures of activity, jobs and meals, in the cost formulas in its budgets and performance reports. The cost formula for catering supplies is \$470 per month plus \$101 per job plus \$24 per meal. A typical job involves serving a number of meals to guests at a corporate function or at a host's home. The company expected its activity in May to be 12 jobs and 123 meals, but the actual activity was 9 jobs and 126 meals. The actual cost for catering supplies in May was \$4,240. The spending variance for catering supplies in May would be closest to:
- A. \$394 U
  - B. \$394 F
  - C. \$163 F
  - D. \$163 U

18. Newsom Footwear Corporation's flexible budget cost formula for supplies, a variable cost, is \$2.61 per unit of output. The company's flexible budget performance report for last month showed a \$6,840 unfavorable spending variance for supplies. During that month, 17,100 units were produced. Budgeted activity for the month had been 16,700 units. The actual cost per unit for indirect materials must have been closest to:

- A. \$3.01
- B. \$3.49
- C. \$3.41
- D. \$2.61

19. A flexible budget can be used to determine what costs should have been at a given level of activity.

True False

20. If activity is higher than expected, total variable costs should be higher than expected. If activity is lower than expected, total variable costs should be lower than expected.

True False

21. The activity variance for revenue is unfavorable if the revenue in the flexible budget is less than the revenue in the static planning budget.

True False

22. Flexible budgets cannot be used when there is more than one cost driver (i.e., measure of activity).

True False

23. The purchasing agent of the Clampett Company ordered materials of lower quality in an effort to economize on price and in response to the demands of the production manager due to a mistake in production scheduling. The materials were shipped by airfreight at a rate higher than that ordinarily charged for shipment by truck, resulting in an unfavorable materials price variance. The lower quality material proved to be unsuitable on the production line and resulted in excessive waste. In this situation, who should be held responsible for the materials price and quantity variances?

- |    | <b>Materials Price Variance</b> | <b>Materials Quantity Variance</b> |
|----|---------------------------------|------------------------------------|
| A) | <b>Purchasing Agent</b>         | <b>Purchasing Agent</b>            |
| B) | <b>Production Manager</b>       | <b>Production Manager</b>          |
| C) | <b>Production Manager</b>       | <b>Purchasing Agent</b>            |
| D) | <b>Purchasing Agent</b>         | <b>Production Manager</b>          |

A. Option A

B. Option B

C. Option C

D. Option D

24. Todco planned to produce 3,000 units of its single product, Teragram, during November. The standard specifications for one unit of Teragram include six pounds of material at \$0.30 per pound. Actual production in November was 3,100 units of Teragram. The accountant computed a favorable materials purchase price variance of \$380 and an unfavorable materials quantity variance of \$120. Based on these variances, one could conclude that:

A. more materials were purchased than were used.

B. more materials were used than were purchased.

C. the actual cost of materials was less than the standard cost.

D. the actual usage of materials was less than the standard allowed.

25. The materials quantity variance should be computed:

- A. when materials are purchased.
- B. based upon the amount of materials used in production.
- C. based upon the difference between the actual and standard prices per unit times the actual quantity used.
- D. only when there is a difference between standard and actual cost per unit for the materials.

26. If the labor efficiency variance is unfavorable, then

- A. actual hours exceeded standard hours allowed for the actual output.
- B. standard hours allowed for the actual output exceeded actual hours.
- C. the standard rate exceeded the actual rate.
- D. the actual rate exceeded the standard rate.

27. An unfavorable direct labor efficiency variance could be caused by:

- A. an unfavorable materials quantity variance.
- B. an unfavorable variable overhead rate variance.
- C. a favorable materials quantity variance.
- D. a favorable variable overhead rate variance.

28. Variable manufacturing overhead is applied to products on the basis of standard direct labor-hours. If the direct labor efficiency variance is unfavorable, the variable overhead efficiency variance will be:
- A. favorable.
  - B. unfavorable.
  - C. either favorable or unfavorable.
  - D. zero.
29. Which of the following statements concerning ideal standards is incorrect?
- A. Ideal standards generally do not provide the best motivation for workers.
  - B. Ideal standards do not make allowances for waste, spoilage, and machine breakdowns.
  - C. Ideal standards are better suited for cash budgeting than practical standards.
  - D. Ideal standards may be better than practical standards when managers seek continual improvement.
30. The Porter Company has a standard cost system. In July the company purchased and used 22,500 pounds of direct material at an actual cost of \$53,000; the materials quantity variance was \$1,875 Unfavorable; and the standard quantity of materials allowed for July production was 21,750 pounds. The materials price variance for July was:
- A. \$2,725 F
  - B. \$2,725 U
  - C. \$3,250 F
  - D. \$3,250 U

31. The following materials standards have been established for a particular product:

Standard quantity per unit of output .....	7.3	Pounds
Standard price .....	\$14.45	per pound

The following data pertain to operations concerning the product for the last month:

Actual materials purchased .....	6,600	Pounds
Actual cost of materials purchased .....	\$91,740	
Actual materials used in production.....	5,900	Pounds
Actual output.....	1,000	Units

What is the materials quantity variance for the month?

- A. \$19,460 F
- B. \$9,730 U
- C. \$10,115 U
- D. \$20,230 F

32. The following labor standards have been established for a particular product:

Standard labor-hours per unit of output .....	4.0	hours
Standard labor rate .....	\$12.30	per hour

The following data pertain to operations concerning the product for the last month:

Actual hours worked .....	7,100	hours
Actual total labor cost .....	\$89,105	
Actual output.....	1,500	units

What is the labor efficiency variance for the month?

- A. \$13,805 U
- B. \$13,530 U
- C. \$15,305 U
- D. \$15,305 F

33. The following labor standards have been established for a particular product:

Standard labor-hours per unit of output .....	1.5	hours
Standard labor rate .....	\$17.55	per hour

The following data pertain to operations concerning the product for the last month:

Actual hours worked .....	5,300	hours
Actual total labor cost .....	\$94,340	
Actual output.....	3,600	units

What is the labor rate variance for the month?

- A. \$1,325 U
- B. \$1,780 F
- C. \$430 F
- D. \$430 U

34. When the actual amount of a raw material used in production is greater than the standard amount allowed for the actual output, the journal entry would include:
- A. Debit to Raw Materials; Credit to Materials Quantity Variance
  - B. Debit to Work-In-Process; Credit to Materials Quantity Variance
  - C. Debit to Raw Materials; Debit to Materials Quantity Variance
  - D. Debit to Work-In-Process; Debit to Materials Quantity Variance
35. Dolittle Company purchased materials on account. The entry to record the purchase of materials having a standard cost of \$0.50 per pound from a supplier at \$0.60 per pound would include a:
- A. credit to Raw Materials Inventory.
  - B. debit to Work in Process.
  - C. credit to Materials Price Variance.
  - D. debit to Materials Price Variance.
36. Which of the following entries would correctly record charging direct labor costs to Work in Process, given an unfavorable labor efficiency variance and a favorable labor rate variance?
- A.
    - Work in Process
    - Labor Rate Variance
    - Labor Efficiency Variance
    - Wages Payable
  - B.
    - Work in Process
    - Wages Payable
  - C.
    - Labor Efficiency Variance
    - Labor Rate Variance
  - D.
    - Work in Process
    - Labor Efficiency Variance
    - Labor Rate Variance
    - Wages Payable



37. When the selling division in an internal transfer has unsatisfied demand from outside customers for the product that is being transferred, then the lowest acceptable transfer price as far as the selling division is concerned is:

- A. variable cost of producing a unit of product.
- B. the full absorption cost of producing a unit of product.
- C. the market price charged to outside customers, less costs saved by transferring internally.
- D. the amount that the purchasing division would have to pay an outside seller to acquire a similar product for its use.

38. Division X makes a part that it sells to customers outside of the company. Data concerning this part appear below:

Selling price to outside customers.....	\$75
Variable cost per unit .....	\$50
Total fixed costs .....	\$400,000
Capacity in units .....	25,000

Division Y of the same company would like to use the part manufactured by Division X in one of its products. Division Y currently purchases a similar part made by an outside company for \$70 per unit and would substitute the part made by Division X. Division Y requires 5,000 units of the part each period. Division X can already sell all of the units it can produce on the outside market. What should be the lowest acceptable transfer price from the perspective of Division X?

- A. \$75
- B. \$66
- C. \$16
- D. \$50

39. Part WY4 costs the Eastern Division of Tyble Corporation \$26 to make—direct materials are \$10, direct labor is \$4, variable manufacturing overhead is \$9, and fixed manufacturing overhead is \$3. Eastern Division sells Part WY4 to other companies for \$30. The Western Division of Tyble Corporation can use Part WY4 in one of its products. The Eastern Division has enough idle capacity to produce all of the units of Part WY4 that the Western Division would require. What is the lowest transfer price at which the Eastern Division should be willing to sell Part WY4 to the Central Division?

- A. \$30
- B. \$26
- C. \$23
- D. \$27

40. Costs which are always relevant in decision making are those costs which are:

- A. variable.
- B. avoidable.
- C. sunk.
- D. fixed.

41. Freestone Company is considering renting Machine Y to replace Machine X. It is expected that Y will waste less direct materials than does X. If Y is rented, X will be sold on the open market. For this decision, which of the following factors is (are) relevant?

I. Cost of direct materials used

II. Resale value of Machine X

A. Only I

B. Only II

C. Both I and II

D. Neither I nor II

42. Which of the following are valid reasons for eliminating a product line?

I. The product line's contribution margin is negative.

II. The product line's traceable fixed costs plus its allocated common corporate costs are less than its contribution margin.

A. Only I

B. Only II

C. Both I and II

D. Neither I nor II

43. When there is a production constraint, a company should emphasize the products with:

A. the highest unit contribution margins.

B. the highest contribution margin ratios.

C. the highest contribution margin per unit of the constrained resource.

D. the highest contribution margins and contribution margin ratios.

44. In a sell or process further decision, which of the following costs are relevant?

I. A variable production cost incurred prior to the split-off point.

II. An avoidable fixed production cost incurred after the split-off point.

A. Only I.

B. Only II.

C. Both I and II.

D. Neither I nor II.

45. Cung Inc. has some material that originally cost \$68,400. The material has a scrap value of \$30,100 as is, but if reworked at a cost of \$1,400, it could be sold for \$30,800. What would be the incremental effect on the company's overall profit of reworking and selling the material rather than selling it as is as scrap?

A. -\$69,100

B. -\$700

C. \$29,400

D. -\$39,000

46. A study has been conducted to determine if Product A should be dropped. Sales of the product total \$200,000 per year; variable expenses total \$140,000 per year. Fixed expenses charged to the product total \$90,000 per year. The company estimates that \$40,000 of these fixed expenses will continue even if the product is dropped. These data indicate that if Product A is dropped, the company's overall net operating income would:
- A. decrease by \$20,000 per year
  - B. increase by \$20,000 per year
  - C. decrease by \$10,000 per year
  - D. increase by \$30,000 per year
47. Peluso Company, a manufacturer of snowmobiles, is operating at 70% of plant capacity. Peluso's plant manager is considering making the headlights now being purchased from an outside supplier for \$11 each. The Peluso plant has idle equipment that could be used to manufacture the headlights. The design engineer estimates that each headlight requires \$4 of direct materials, \$3 of direct labor, and \$6.00 of manufacturing overhead. Forty percent of the manufacturing overhead is a fixed cost that would be unaffected by this decision. A decision by Peluso Company to manufacture the headlights should result in a net gain (loss) for each headlight of:
- A. \$(2.00)
  - B. \$1.60
  - C. \$0.40
  - D. \$2.80

48. An automated turning machine is the current constraint at Naik Corporation. Three products use this constrained resource. Data concerning those products appear below:

	KU	OP	YY
Selling price per unit.....	\$104.89	\$528.09	\$558.03
Variable cost per unit.....	\$82.11	\$429.78	\$420.08
Minutes on the constraint.....	1.70	8.70	8.90

Rank the products in order of their current profitability from most profitable to least profitable. In other words, rank the products in the order in which they should be emphasized.

- A. OP, KU, YY
- B. YY, OP, KU
- C. KU, YY, OP
- D. YY, KU, OP

49. Wright Company produces products I, J, and K from a single raw material input. Budgeted data for the next month follows:

	Product I	Product J	Product K
Units produced.....	1,500	2,000	3,000
Per unit sales value at split-off.....	\$10	\$12	\$15
Added processing costs per unit.....	\$2	\$4	\$4
Per unit sales value if processed further.....	\$15	\$15	\$20

If the cost of the raw material input is \$78,000, which of the products should be processed beyond the split-off point?

	Product I	Product J	Product K
A) yes	yes	yes	no
B) yes	yes	no	yes
C) no	no	yes	no
D) no	no	yes	yes

- A. Option A
- B. Option B
- C. Option C
- D. Option D

50. Coakley Beet Processors, Inc., processes sugar beets in batches. A batch of sugar beets costs \$48 to buy from farmers and \$10 to crush in the company's plant. Two intermediate products, beet fiber and beet juice, emerge from the crushing process. The beet fiber can be sold as is for \$24 or processed further for \$16 to make the end product industrial fiber that is sold for \$36. The beet juice can be sold as is for \$44 or processed further for \$28 to make the end product refined sugar that is sold for \$70. How much profit (loss) does the company make by processing the intermediate product beet juice into refined sugar rather than selling it as is?

- A. \$(31)
- B. \$(60)
- C. \$(2)
- D. \$(12)

# Exam 3 chapters 8-10And12 Garrison14ed Key

1. Which of the following is not a benefit of budgeting?

- A. It reduces the need for tracking actual cost activity.
- B. It sets benchmarks for evaluation performance.
- C. It uncovers potential bottlenecks.
- D. It formalizes a manager's planning efforts.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 08 #12*

*Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets*

*Level: Easy*

2. A continuous (or perpetual) budget:

- A. is prepared for a range of activity so that the budget can be adjusted for changes in activity.
- B. is a plan that is updated monthly or quarterly, dropping one period and adding another.
- C. is a strategic plan that does not change.
- D. is used in companies that experience no change in sales.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 08 #16*

*Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets*

*Level: Medium*

*Source: CMA, adaptea*



3. Which of the following statements is not correct?

- A. The sales budget is the starting point in preparing the master budget.
- B. The sales budget is constructed by multiplying the expected sales in units by the sales price.
- C. The sales budget generally is accompanied by a computation of expected cash receipts for the forthcoming budget period.
- D. The cash budget must be prepared prior to the sales budget because managers want to know the expected cash collections on sales made to customers in prior periods before projecting sales for the current period.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 08 #17*

*Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections*

*Level: Medium*

4. Budgeted production needs are determined by:

- A. adding budgeted sales in units to the desired ending inventory in units and deducting the beginning inventory in units from this total.
- B. adding budgeted sales in units to the beginning inventory in units and deducting the desired ending inventory in units from this total.
- C. adding budgeted sales in units to the desired ending inventory in units.
- D. deducting the beginning inventory in units from budgeted sales in units.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 08 #18*

*Learning Objective: 08-03 Prepare a production budget*

*Level: Medium*

5. The budgeted amount of raw materials to be purchased is determined by:
- A. adding the desired ending inventory of raw materials to the raw materials needed to meet the production schedule.
  - B. subtracting the beginning inventory of raw materials from the raw materials needed to meet the production schedule.
  - C. adding the desired ending inventory of raw materials to the raw materials needed to meet the production schedule and subtracting the beginning inventory of raw materials.
  - D. adding the beginning inventory of raw materials to the raw materials needed to meet the production schedule and subtracting the desired ending inventory of raw materials.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 08 #19*

*Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials*

*Level: Medium*

6. Shown below is the sales forecast for Cooper Inc. for the first four months of the coming year.

	Jan	Feb	Mar	Apr
Cash sales .....	\$15,000	\$24,000	\$18,000	\$14,000
Credit sales .....	\$100,000	\$120,000	\$90,000	\$70,000

On average, 50% of credit sales are paid for in the month of the sale, 30% in the month following sale, and the remainder are paid two months after the month of the sale. Assuming there are no bad debts, the expected cash inflow in March is:

- A. \$138,000
- B. \$122,000
- C. \$119,000
- D. \$108,000

Cash inflow for March:

March cash sales.....	\$ 18,000
March credit sales collected in March ( $\$90,000 \times 50\%$ ).....	45,000
February credit sales collected in March ( $\$120,000 \times 30\%$ ).....	36,000
January credit sales collected in March ( $\$100,000 \times 20\%$ )	20,000
<b>Total cash inflow in March.....</b>	<b><u><u>\$119,000</u></u></b>

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 08 #21*

*Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections*

*Level: Medium*

*Source: CMA, adapted*

7. The following data have been taken from the budget reports of Brandon company, a merchandising company.

	Purchases	Sales
January .....	\$160,000	\$100,000
February .....	\$160,000	\$200,000
March.....	\$160,000	\$240,000
April.....	\$140,000	\$300,000
May .....	\$140,000	\$260,000
June .....	\$120,000	\$240,000

Forty percent of purchases are paid for in cash at the time of purchase, and 30% are paid for in each of the next two months. Purchases for the previous November and December were \$150,000 per month. Employee wages are 10% of sales for the month in which the sales occur. Selling and administrative expenses are 20% of the following month's sales. (July sales are budgeted to be \$220,000.) Interest payments of \$20,000 are paid quarterly in January and April. Brandon's cash disbursements for the month of April would be:

- A. \$140,000
- B. \$254,000**
- C. \$200,000
- D. \$248,000

Cash disbursements for April:

<b>Purchases:</b>	
Purchases in April ( $\$140,000 \times 40\%$ ) .....	\$ 56,000
Purchases in March ( $\$160,000 \times 30\%$ ) .....	48,000
Purchases in February ( $\$160,000 \times 30\%$ ).....	48,000
<b>Employee wages:</b>	
Employee wages in April ( $\$300,000 \times 10\%$ ).....	30,000
<b>Selling and administrative expenses:</b>	
Selling and administrative expenses ( $\$260,000 \times 20\%$ ) .....	52,000
Interest .....	20,000
<b>Total cash disbursements for April .....</b>	<b><u><u>\$254,000</u></u></b>

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 08 #23*

*Learning Objective: 08-03 Prepare a production budget*

*Learning Objective: 08-08 Prepare a cash budget*

*Level: Hard*

*Source: CMA, adapted*

8. Walsh Company expects sales of Product W to be 60,000 units in April, 75,000 units in May and 70,000 units in June. The company desires that the inventory on hand at the end of each month be equal to 40% of the next month's expected unit sales. Due to excessive production during March, on March 31 there were 25,000 units of Product W in the ending inventory. Given this information, Walsh Company's production of Product W for the month of April should be:

- A. 60,000 units
- B. 65,000 units**
- C. 75,000 units
- D. 66,000 units

	April
Budgeted unit sales .....	60,000
Add desired ending finished goods inventory <sup>1</sup> .....	<u>30,000</u>
Total needs.....	90,000
Less beginning finished goods inventory .....	<u>25,000</u>
Required production in units .....	<u><u>65,000</u></u>

<sup>1</sup>May sales of 75,000 units × 40% = 30,000 units

*AACSB: Analytic*  
*AICPA BB: Critical Thinking*  
*AICPA FN: Measurement*  
*Blooms: Application*  
*Garrison - Chapter 08 #24*  
*Learning Objective: 08-03 Prepare a production budget*  
*Level: Medium*

9. Prestwich Company has budgeted production for next year as follows:

	Quarter			
	First	Second	Third	Fourth
Production in units .....	60,000	80,000	90,000	70,000

Two pounds of material A are required for each unit produced. The company has a policy of maintaining a stock of material A on hand at the end of each quarter equal to 25% of the next quarter's production needs for material A. A total of 30,000 pounds of material A are on hand to start the year. Budgeted purchases of material A for the second quarter would be:

- A. 82,500 pounds
- B. 165,000 pounds**
- C. 200,000 pounds
- D. 205,000 pounds

Budgeted purchases of material A:

	Second Quarter
Production in units .....	80,000
Pounds per unit of production .....	2
Pounds of raw material needed for production.....	160,000
Add desired ending inventory (90,000 units × 2 pounds per unit × 25%).....	45,000
Total raw materials needs.....	205,000
Less beginning inventory (80,000 units × 2 pounds per unit × 25%).....	40,000
Required purchases.....	<u>165,000</u>

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 08 #27

Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials

Level: Medium



10. Avitia Inc. bases its manufacturing overhead budget on budgeted direct labor-hours. The direct labor budget indicates that 3,700 direct labor-hours will be required in September. The variable overhead rate is \$5.70 per direct labor-hour. The company's budgeted fixed manufacturing overhead is \$48,100 per month, which includes depreciation of \$5,550. All other fixed manufacturing overhead costs represent current cash flows. The company recomputes its predetermined overhead rate every month. The predetermined overhead rate for September should be:

- A. \$5.70
- B. \$13.00
- C. \$18.70
- D. \$17.20

### Manufacturing Overhead Rate

	September
Budgeted direct labor-hours.....	3,700
Variable manufacturing overhead rate.....	\$5.70
Variable manufacturing overhead.....	\$21,090
Fixed manufacturing overhead .....	<u>48,100</u>
Total manufacturing overhead (a).....	\$69,190
Budgeted direct labor-hours (b).....	3,700
Predetermined overhead rate (a) ÷ (b).....	\$18.70

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 08 #32*

*Learning Objective: 08-06 Prepare a manufacturing overhead budget*

*Level: Easy*

Brarin Corporation is a small wholesaler of gourmet food products. Data regarding the store's operations follow:

- Sales are budgeted at \$340,000 for November, \$360,000 for December, and \$350,000 for January.
- Collections are expected to be 55% in the month of sale, 44% in the month following the sale, and 1% uncollectible.
- The cost of goods sold is 80% of sales.
- The company would like to maintain ending merchandise inventories equal to 70% of the next month's cost of goods sold. Payment for merchandise is made in the month following the purchase.
- Other monthly expenses to be paid in cash are \$23,100.
- Monthly depreciation is \$21,000.
- Ignore taxes.

**Statement of Financial Position**  
October 31

<b>Assets</b>	
Cash.....	\$ 22,000
Accounts receivable (net of allowance for uncollectible accounts) .....	77,000
Merchandise inventory .....	190,400
Property, plant and equipment (net of \$452,000 accumulated depreciation).....	<u>934,000</u>
<b>Total assets .....</b>	<b><u>\$1,223,400</u></b>
<b>Liabilities and Stockholders' Equity</b>	
Accounts payable .....	\$ 281,000
Common stock.....	620,000
Retained earnings.....	<u>322,400</u>
<b>Total liabilities and stockholders' equity.....</b>	<b><u>\$1,223,400</u></b>

11. Expected cash collections in December are:

- A. \$360,000
- B. \$149,600
- C. \$198,000
- D. \$347,600

Cash collections for December:

December credit sales collected in December ( $\$360,000 \times 55\%$ ).	<b>\$198,000</b>
November credit sales collected in December ( $\$340,000 \times 44\%$ ).	<u>149,600</u>
Total cash collections in December.....	<u><u>\$347,600</u></u>

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 08 #49*

*Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections*

*Level: Hard*

12. The purpose of a flexible budget is to:

- A. remove items from performance reports that are not controllable by managers.
- B. permit managers to reduce the number of unfavorable variances that are reported.
- C. update the static planning budget to reflect the actual level of activity of the period.
- D. reduce the amount of conflict between departments when the master budget is prepared.

When a flexible budget is used in performance evaluation, actual costs are compared to what the costs *should have been for the actual level of activity during the period* rather than to the static planning budget.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 09 #17*

*Learning Objective: 09-01 Prepare a flexible budget*

*Level: Easy*

13. 21 Salyers Family Inn is a bed and breakfast establishment in a converted 100-year-old mansion. The Inn's guests appreciate its gourmet breakfasts and individually decorated rooms. The Inn's overhead budget for the most recent month appears below

Activity level.....	57 guests
Variable overhead costs:	
Supplies.....	\$ 148.20
Laundry.....	216.60
Fixed overhead costs:	
Utilities.....	170.00
Salaries and wages.....	4,310.00
Depreciation.....	<u>2,340.00</u>
Total overhead cost.....	<u>\$7,184.80</u>

The Inn's variable overhead costs are driven by the number of guests.

What would be the total budgeted overhead cost for a month if the activity level is 53 guests?

- A. \$7,159.20
- B. \$6,680.60
- C. \$7,184.80
- D. \$26,154.40

Variable cost per guest for supplies =  $\$148.20 \div 57 \text{ guests} = \$2.60 \text{ per guest}$

Variable cost per guest for laundry =  $\$216.60 \div 57 \text{ guests} = \$3.80 \text{ per guest}$

Activity level.....	<u>53 guests</u>
Variable overhead costs:	
Supplies (\$2.60 per guest × 53 guests) ...	\$137.80
Laundry (\$3.80 per guest × 53 guests)....	201.40
Fixed overhead costs:	
Utilities.....	170.00
Salaries and wages.....	4,310.00
Depreciation.....	<u>2,340.00</u>
Total overhead cost.....	<u>\$7,159.20</u>

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 09 #21*

*Learning Objective: 09-01 Prepare a flexible budget*

*Level: Easy*

14. Stock Manufacturing Corporation has prepared the following overhead budget for next month.

Activity level.....	6,900 machine-hours
Variable overhead costs:	
Supplies.....	\$21,390
Indirect labor.....	41,400
Fixed overhead costs:	
Supervision .....	14,600
Utilities.....	3,500
Depreciation.....	<u>6,700</u>
Total overhead cost .....	<u>\$87,590</u>

The company's variable overhead costs are driven by machine-hours.

What would be the total budgeted overhead cost for next month if the activity level is 6,600 machine-hours rather than 6,900 machine-hours?

- A. \$84,321.00
- B. \$87,590.00
- C. \$84,860.00**
- D. \$83,781.74

Variable cost per MH for supplies =  $\$21,390 \div 6,900 \text{ MHs} = \$3.10 \text{ per MH}$

Variable cost per MH for indirect labor =  $\$41,400 \div 6,900 \text{ MHs} = \$6.00 \text{ per MH}$

Activity level.....	6,600 MHs
Variable overhead costs:	
Supplies (\$3.10 per MH × 6,600 MHs) .....	\$20,460
Indirect labor (\$6.00 per MH × 6,600 MHs) ....	39,600
Fixed overhead costs:	
Supervision .....	14,600
Utilities.....	3,500
Depreciation .....	<u>6,700</u>
Total overhead cost .....	<u>\$84,860</u>

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 09 #22

Learning Objective: 09-01 Prepare a flexible budget

Level: Easy

15. Clovis Midwifery's cost formula for its wages and salaries is \$2,680 per month plus \$245 per birth. For the month of September, the company planned for activity of 118 births, but the actual level of activity was 121 births. The actual wages and salaries for the month was \$33,290. The wages and salaries in the flexible budget for September would be closest to:

- A. \$32,393
- B. \$31,590
- C. \$32,325
- D. \$33,290

$$\begin{aligned}\text{Cost} &= \text{Fixed cost} + \text{Variable cost per unit} \times q \\ &= \$2,680 + \$245 \times 121 = \$32,325\end{aligned}$$

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 09 #28*

*Learning Objective: 09-01 Prepare a flexible budget*

*Level: Easy*



16. Orscheln Snow Removal's cost formula for its vehicle operating cost is \$2,800 per month plus \$381 per snow-day. For the month of February, the company planned for activity of 17 snow-days, but the actual level of activity was 14 snow-days. The actual vehicle operating cost for the month was \$7,920. The activity variance for vehicle operating cost in February would be closest to:

- A. \$1,357 F
- B. \$1,357 U
- C. \$1,143 F
- D. \$1,143 U

Planning budget ( $\$2,800 + \$381 \times 17$ ) .....	\$9,277
Flexible budget ( $\$2,800 + \$381 \times 14$ ) .....	<u>8,134</u>
Activity variance .....	<u>\$1,143</u>

Because the flexible budget is less than the planning budget, the variance is favorable (F).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 09 #35*

*Learning Objective: 09-02 Prepare a report showing activity variances*

*Level: Easy*

17. Sissac Catering uses two measures of activity, jobs and meals, in the cost formulas in its budgets and performance reports. The cost formula for catering supplies is \$470 per month plus \$101 per job plus \$24 per meal. A typical job involves serving a number of meals to guests at a corporate function or at a host's home. The company expected its activity in May to be 12 jobs and 123 meals, but the actual activity was 9 jobs and 126 meals. The actual cost for catering supplies in May was \$4,240. The spending variance for catering supplies in May would be closest to:

- A. \$394 U
- B. \$394 F
- C. \$163 F
- D. \$163 U

Flexible budget ( $\$470 + \$101 \times 9 + \$24 \times 126$ ).....	\$4,403
Actual results.....	4,240
Spending variance .....	<u>\$ 163</u>

Because the actual expense is less than the flexible budget, the variance is favorable (F).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 09 #39*

*Learning Objective: 09-03 Prepare a report showing revenue and spending variances*

*Learning Objective: 09-05 Prepare a flexible budget with more than one cost driver*

*Level: Easy*

18. Newsom Footwear Corporation's flexible budget cost formula for supplies, a variable cost, is \$2.61 per unit of output. The company's flexible budget performance report for last month showed a \$6,840 unfavorable spending variance for supplies. During that month, 17,100 units were produced. Budgeted activity for the month had been 16,700 units. The actual cost per unit for indirect materials must have been closest to:

- A. \$3.01
- B. \$3.49
- C. \$3.41
- D. \$2.61

X = actual cost per unit for indirect materials

Spending variance = Actual results - Flexible budget

$$\$6,840 = (17,100 \times X) - (17,100 \times \$2.61)$$

$$\$6,840 = 17,100X - \$44,631$$

$$17,100X = \$51,471$$

$$X = \$3.01$$

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 09 #44*

*Learning Objective: 09-03 Prepare a report showing revenue and spending variances*

*Level: Hard*

19. A flexible budget can be used to determine what costs should have been at a given level of activity.

TRUE

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 09 #2*

*Learning Objective: 09-01 Prepare a flexible budget*

*Level: Easy*

20. If activity is higher than expected, total variable costs should be higher than expected. If activity is lower than expected, total variable costs should be lower than expected.

TRUE

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 09 #3*

*Learning Objective: 09-01 Prepare a flexible budget*

*Level: Easy*

21. The activity variance for revenue is unfavorable if the revenue in the flexible budget is less than the revenue in the static planning budget.

TRUE

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 09 #7*

*Learning Objective: 09-02 Prepare a report showing activity variances*

*Level: Easy*

22. Flexible budgets cannot be used when there is more than one cost driver (i.e., measure of activity).

**FALSE**

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 09 #14*

*Learning Objective: 09-05 Prepare a flexible budget with more than one cost driver*

*Level: Medium*

23. The purchasing agent of the Clampett Company ordered materials of lower quality in an effort to economize on price and in response to the demands of the production manager due to a mistake in production scheduling. The materials were shipped by airfreight at a rate higher than that ordinarily charged for shipment by truck, resulting in an unfavorable materials price variance. The lower quality material proved to be unsuitable on the production line and resulted in excessive waste. In this situation, who should be held responsible for the materials price and quantity variances?

	<b>Materials Price Variance</b>	<b>Materials Quantity Variance</b>
A)	<b>Purchasing Agent</b>	<b>Purchasing Agent</b>
B)	<b>Production Manager</b>	<b>Production Manager</b>
C)	<b>Production Manager</b>	<b>Purchasing Agent</b>
D)	<b>Purchasing Agent</b>	<b>Production Manager</b>

- A. Option A  
B. Option B  
C. Option C  
D. Option D

The materials price variance is the responsibility of the production manager because the unfavorable variance was due to the demands made by the production manager. The materials quantity variance is the responsibility of the purchasing agent because the purchasing agent was responsible for ordering the lower quality material.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 10 #13*

*Learning Objective: 10-01 Compute the direct materials quantity and price variances and explain their significance*

*Level: Medium*

24. Todco planned to produce 3,000 units of its single product, Teragram, during November. The standard specifications for one unit of Teragram include six pounds of material at \$0.30 per pound. Actual production in November was 3,100 units of Teragram. The accountant computed a favorable materials purchase price variance of \$380 and an unfavorable materials quantity variance of \$120. Based on these variances, one could conclude that:
- A. more materials were purchased than were used.
  - B. more materials were used than were purchased.
  - C. the actual cost of materials was less than the standard cost.
  - D. the actual usage of materials was less than the standard allowed.

Materials price variance =  $AQ (AP - SP)$

A favorable materials price variance can only occur if the actual price of materials was less than the standard price.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 10 #14*

*Learning Objective: 10-01 Compute the direct materials quantity and price variances and explain their significance*

*Level: Medium*

*Source: CMA, adaptea*

25. The materials quantity variance should be computed:
- A. when materials are purchased.
  - B.** based upon the amount of materials used in production.
  - C. based upon the difference between the actual and standard prices per unit times the actual quantity used.
  - D. only when there is a difference between standard and actual cost per unit for the materials.

Materials quantity variance =  $(AQ - SQ)SP$ , where AQ is the actual quantity used

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 10 #15*

*Learning Objective: 10-01 Compute the direct materials quantity and price variances and explain their significance*

*Level: Medium*

26. If the labor efficiency variance is unfavorable, then

- A.** actual hours exceeded standard hours allowed for the actual output.
- B. standard hours allowed for the actual output exceeded actual hours.
- C. the standard rate exceeded the actual rate.
- D. the actual rate exceeded the standard rate.

Labor efficiency variance =  $(AH - SH) SR$ . An unfavorable variance occurs if  $AH > SH$ .

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 10 #18*

*Learning Objective: 10-02 Compute the direct labor efficiency and rate variances and explain their significance*

*Level: Easy*



27. An unfavorable direct labor efficiency variance could be caused by:

- A. an unfavorable materials quantity variance.
- B. an unfavorable variable overhead rate variance.
- C. a favorable materials quantity variance.
- D. a favorable variable overhead rate variance.

An unfavorable quantity variance could be caused by low quality materials, which in turn could cause an unfavorable labor efficiency variance.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 10 #20*

*Learning Objective: 10-02 Compute the direct labor efficiency and rate variances and explain their significance*

*Level: Medium*

*Source: CMA, adapted*

28. Variable manufacturing overhead is applied to products on the basis of standard direct labor-hours. If the direct labor efficiency variance is unfavorable, the variable overhead efficiency variance will be:

- A. favorable.
- B. unfavorable.**
- C. either favorable or unfavorable.
- D. zero.

Labor efficiency variance =  $(AH - SH) SR$

Variable overhead efficiency variance =  $(AH - SH) SR$

If the labor efficiency variance is unfavorable,  $AH > SH$ . If  $AH > SH$ , the variable overhead efficiency variance must also be unfavorable.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 10 #21*

*Learning Objective: 10-03 Compute the variable manufacturing overhead efficiency and rate variances and explain their significance*

*Level: Easy*

*Source: CMA, adapted*

29. Which of the following statements concerning ideal standards is incorrect?

- A. Ideal standards generally do not provide the best motivation for workers.
- B. Ideal standards do not make allowances for waste, spoilage, and machine breakdowns.
- C. Ideal standards are better suited for cash budgeting than practical standards.
- D. Ideal standards may be better than practical standards when managers seek continual improvement.

Practical standards provide better forecasts of cash flows for cash budgeting than practical standards.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 10 #22*

*Learning Objective: 10-03 Compute the variable manufacturing overhead efficiency and rate variances and explain their significance*

*Level: Medium*

*Source: CMA, adaptea*

30. The Porter Company has a standard cost system. In July the company purchased and used 22,500 pounds of direct material at an actual cost of \$53,000; the materials quantity variance was \$1,875 Unfavorable; and the standard quantity of materials allowed for July production was 21,750 pounds. The materials price variance for July was:

- A. \$2,725 F
- B. \$2,725 U
- C. \$3,250 F
- D. \$3,250 U

Materials price variance =  $(AQ \times AP) - (AQ \times SP)$

$$= \$53,000 - (22,500 \text{ pounds} \times \$2.50 \text{ per pound}) = \$53,000 - \$56,250 = \$3,250 \text{ F}$$

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 10 #23*

*Learning Objective: 10-01 Compute the direct materials quantity and price variances and explain their significance*

*Level: Hard*

31. The following materials standards have been established for a particular product:

Standard quantity per unit of output .....	7.3	Pounds
Standard price .....	\$14.45	per pound

The following data pertain to operations concerning the product for the last month:

Actual materials purchased .....	6,600	Pounds
Actual cost of materials purchased .....	\$91,740	
Actual materials used in production.....	5,900	Pounds
Actual output.....	1,000	Units

What is the materials quantity variance for the month?

- A. \$19,460 F
- B. \$9,730 U
- C. \$10,115 U
- D. \$20,230 F

$$SQ = 7.3 \text{ pounds per unit} \times 1,000 \text{ units} = 7,300 \text{ pounds}$$

$$\text{Materials quantity variance} = (AQ - SQ) SP$$

$$= (5,900 \text{ pounds} - 7,300 \text{ pounds}) \$14.45 \text{ per pound}$$

$$= (-1,400 \text{ pounds}) \$14.45 \text{ per pound} = \$20,230 \text{ F}$$

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 10 #25*

*Learning Objective: 10-01 Compute the direct materials quantity and price variances and explain their significance*

*Level: Easy*

32. The following labor standards have been established for a particular product:

Standard labor-hours per unit of output .....	4.0	hours
Standard labor rate .....	\$12.30	per hour

The following data pertain to operations concerning the product for the last month:

Actual hours worked .....	7,100	hours
Actual total labor cost .....	\$89,105	
Actual output.....	1,500	units

What is the labor efficiency variance for the month?

- A. \$13,805 U
- B. \$13,530 U**
- C. \$15,305 U
- D. \$15,305 F

$$\text{SH} = 1,500 \text{ units} \times 4 \text{ hours per unit} = 6,000 \text{ hours}$$

$$\text{Labor efficiency variance} = (\text{AH} - \text{SH}) \text{ SR}$$

$$= (7,100 \text{ hours} - 6,000 \text{ hours}) \$12.30 \text{ per hour}$$

$$= (1,100 \text{ hours}) \$12.30 \text{ per hour} = \$13,530 \text{ U}$$

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 10 #30*

*Learning Objective: 10-02 Compute the direct labor efficiency and rate variances and explain their significance*

*Level: Easy*

33. The following labor standards have been established for a particular product:

Standard labor-hours per unit of output .....	1.5	hours
Standard labor rate .....	\$17.55	per hour

The following data pertain to operations concerning the product for the last month:

Actual hours worked .....	5,300	hours
Actual total labor cost .....	\$94,340	
Actual output.....	3,600	units

What is the labor rate variance for the month?

- A. \$1,325 U
- B. \$1,780 F
- C. \$430 F
- D. \$430 U

$$AH \times AR = \$94,340$$

$$\begin{aligned} \text{Labor rate variance} &= AH (AR - SR) = AH \times AR - AH \times SR \\ &= \$94,340 - (5,300 \text{ hours} \times \$17.55 \text{ per hour}) = \$1,325 \text{ U} \end{aligned}$$

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 10 #31*

*Learning Objective: 10-02 Compute the direct labor efficiency and rate variances and explain their significance*

*Level: Easy*

34. When the actual amount of a raw material used in production is greater than the standard amount allowed for the actual output, the journal entry would include:
- A. Debit to Raw Materials; Credit to Materials Quantity Variance
  - B. Debit to Work-In-Process; Credit to Materials Quantity Variance
  - C. Debit to Raw Materials; Debit to Materials Quantity Variance
  - D. Debit to Work-In-Process; Debit to Materials Quantity Variance

<b>Work-In-Process</b>	<b>\$X</b>	
<b>Materials Quantity Variance</b>	<b>\$X</b>	
<b>Raw Materials</b>		<b>\$X</b>

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 10 #6*

*Learning Objective: 10B-01 Compute the direct materials quantity and price variances and explain their significance*

*Learning Objective: 10B-05 Prepare journal entries to record standard costs and variances*

*Level: Medium*



35. Dolittle Company purchased materials on account. The entry to record the purchase of materials having a standard cost of \$0.50 per pound from a supplier at \$0.60 per pound would include a:

- A. credit to Raw Materials Inventory.
- B. debit to Work in Process.
- C. credit to Materials Price Variance.
- D. debit to Materials Price Variance.

<b>Raw Materials</b>	<b>\$X</b>	
<b>Materials Price Variance</b>	<b>\$X</b>	
<b>Accounts Payable</b>		<b>\$X</b>

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 10 #10*

*Learning Objective: 10B-01 Compute the direct materials quantity and price variances and explain their significance*

*Learning Objective: 10B-05 Prepare journal entries to record standard costs and variances*

*Level: Medium*

36. Which of the following entries would correctly record charging direct labor costs to Work in Process, given an unfavorable labor efficiency variance and a favorable labor rate variance?

A. Work in Process  
Labor Rate Variance  
Labor Efficiency Variance  
Wages Payable

B. Work in Process  
Wages Payable

C. Labor Efficiency Variance  
Labor Rate Variance

D. Work in Process  
Labor Efficiency Variance  
Labor Rate Variance  
Wages Payable

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 10 #11*

*Learning Objective: 10B-02 Compute the direct labor efficiency and rate variances and explain their significance*

*Learning Objective: 10B-05 Prepare journal entries to record standard costs and variances*

*Level: Easy*

37. When the selling division in an internal transfer has unsatisfied demand from outside customers for the product that is being transferred, then the lowest acceptable transfer price as far as the selling division is concerned is:
- A. variable cost of producing a unit of product.
  - B. the full absorption cost of producing a unit of product.
  - C. the market price charged to outside customers, less costs saved by transferring internally.
  - D. the amount that the purchasing division would have to pay an outside seller to acquire a similar product for its use.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 11 #4*

*Learning Objective: 11A-05 Determine the range; if any; within which a negotiated transfer price should fall*

*Level: Medium*

38. Division X makes a part that it sells to customers outside of the company. Data concerning this part appear below:

Selling price to outside customers.....	\$75
Variable cost per unit .....	\$50
Total fixed costs .....	\$400,000
Capacity in units .....	25,000

Division Y of the same company would like to use the part manufactured by Division X in one of its products. Division Y currently purchases a similar part made by an outside company for \$70 per unit and would substitute the part made by Division X. Division Y requires 5,000 units of the part each period. Division X can already sell all of the units it can produce on the outside market. What should be the lowest acceptable transfer price from the perspective of Division X?

- A. \$75
- B. \$66
- C. \$16
- D. \$50

Because there is no opportunity cost, the selling division should not accept any transfer price less than its variable cost of \$75 per unit.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 11 #5*

*Learning Objective: 11A-05 Determine the range, if any, within which a negotiated transfer price should fall*

*Level: Medium*

39. Part WY4 costs the Eastern Division of Tyble Corporation \$26 to make—direct materials are \$10, direct labor is \$4, variable manufacturing overhead is \$9, and fixed manufacturing overhead is \$3. Eastern Division sells Part WY4 to other companies for \$30. The Western Division of Tyble Corporation can use Part WY4 in one of its products. The Eastern Division has enough idle capacity to produce all of the units of Part WY4 that the Western Division would require. What is the lowest transfer price at which the Eastern Division should be willing to sell Part WY4 to the Central Division?

- A. \$30
- B. \$26
- C. \$23
- D. \$27

Because the selling division has ample idle capacity there is no opportunity cost and therefore the lowest price the part should be sold for is the total amount of variable costs that would be incurred, which is \$23 per unit (= \$10 per unit + \$4 per unit + \$9 per unit).

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 11 #6*

*Learning Objective: 11A-05 Determine the range; if any; within which a negotiated transfer price should fall*

*Level: Easy*

40. Costs which are always relevant in decision making are those costs which are:

- A. variable.
- B. avoidable.**
- C. sunk.
- D. fixed.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 12 #17*

*Learning Objective: 12-01 Identify relevant and irrelevant costs and benefits in a decision*

*Level: Easy*

41. Freestone Company is considering renting Machine Y to replace Machine X. It is expected that Y will waste less direct materials than does X. If Y is rented, X will be sold on the open market. For this decision, which of the following factors is (are) relevant?

- I. Cost of direct materials used
- II. Resale value of Machine X

- A. Only I
- B. Only II
- C. Both I and II**
- D. Neither I nor II

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 12 #20*

*Learning Objective: 12-01 Identify relevant and irrelevant costs and benefits in a decision*

*Level: Easy*

42. Which of the following are valid reasons for eliminating a product line?

I. The product line's contribution margin is negative.

II. The product line's traceable fixed costs plus its allocated common corporate costs are less than its contribution margin.

- A. Only I
- B. Only II
- C. Both I and II
- D. Neither I nor II

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Knowledge*

*Garrison - Chapter 12 #21*

*Learning Objective: 12-02 Prepare an analysis showing whether a product line or other business segment should be added or dropped*

*Level: Easy*

43. When there is a production constraint, a company should emphasize the products with:

A. the highest unit contribution margins.

B. the highest contribution margin ratios.

C. the highest contribution margin per unit of the constrained resource.

D. the highest contribution margins and contribution margin ratios.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 12 #22*

*Learning Objective: 12-05 Determine the most profitable use of a constrained resource*

*Level: Medium*

44. In a sell or process further decision, which of the following costs are relevant?

I. A variable production cost incurred prior to the split-off point.

II. An avoidable fixed production cost incurred after the split-off point.

A. Only I.

**B.** Only II.

C. Both I and II.

D. Neither I nor II.

*AACSB: Reflective Thinking*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Comprehension*

*Garrison - Chapter 12 #23*

*Learning Objective: 12-07 Prepare an analysis showing whether joint products should be sold at the split-off point or processed further*

*Level: Medium*



45. Cung Inc. has some material that originally cost \$68,400. The material has a scrap value of \$30,100 as is, but if reworked at a cost of \$1,400, it could be sold for \$30,800. What would be the incremental effect on the company's overall profit of reworking and selling the material rather than selling it as is as scrap?

- A. -\$69,100
- B. -\$700**
- C. \$29,400
- D. -\$39,000

Sales value of reworked material ....	\$30,800
Less: Cost to rework material.....	<u>1,400</u>
Net sales value.....	29,400
Current scrap value.....	<u>30,100</u>
Net disadvantage .....	<u>-\$ 700</u>

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 12 #25*

*Learning Objective: 12-01 Identify relevant and irrelevant costs and benefits in a decision*

*Level: Medium*

*Source: CIMA, adaptea*

46. A study has been conducted to determine if Product A should be dropped. Sales of the product total \$200,000 per year; variable expenses total \$140,000 per year. Fixed expenses charged to the product total \$90,000 per year. The company estimates that \$40,000 of these fixed expenses will continue even if the product is dropped. These data indicate that if Product A is dropped, the company's overall net operating income would:

- A. decrease by \$20,000 per year
- B. increase by \$20,000 per year
- C. decrease by \$10,000 per year
- D. increase by \$30,000 per year

	Keep the Product	Drop the Product	Difference
Sales.....	\$200,000	\$ 0	\$(200,000)
Variable expenses .....	140,000	0	140,000
Contribution margin .....	60,000	0	(60,000)
Fixed manufacturing expenses .....	90,000	40,000	50,000
Net operating income (loss).....	<u>\$(30,000)</u>	<u>\$(40,000)</u>	<u>\$ (10,000)</u>

Net operating income would decline by \$10,000 if Product A were dropped.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 12 #31*

*Learning Objective: 12-02 Prepare an analysis showing whether a product line or other business segment should be added or dropped*

*Level: Easy*

47. Peluso Company, a manufacturer of snowmobiles, is operating at 70% of plant capacity. Peluso's plant manager is considering making the headlights now being purchased from an outside supplier for \$11 each. The Peluso plant has idle equipment that could be used to manufacture the headlights. The design engineer estimates that each headlight requires \$4 of direct materials, \$3 of direct labor, and \$6.00 of manufacturing overhead. Forty percent of the manufacturing overhead is a fixed cost that would be unaffected by this decision. A decision by Peluso Company to manufacture the headlights should result in a net gain (loss) for each headlight of:

- A. \$(2.00)
- B. \$1.60
- C. \$0.40
- D. \$2.80

	Make
Direct materials.....	\$4.00
Direct labor .....	3.00
Variable manufacturing overhead (60% of \$6.00) .....	3.60
<b>Total cost .....</b>	<u><b>\$10.60</b></u>

It would cost the company \$0.40 less to make the part than to buy it for \$11.00.

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 12 #37*

*Learning Objective: 12-03 Prepare a make or buy analysis*

*Level: Medium*

*Source: CMA, adaptea*

48. An automated turning machine is the current constraint at Naik Corporation. Three products use this constrained resource. Data concerning those products appear below:

	KU	OP	YY
Selling price per unit.....	\$104.89	\$528.09	\$558.03
Variable cost per unit.....	\$82.11	\$429.78	\$420.08
Minutes on the constraint.....	1.70	8.70	8.90

Rank the products in order of their current profitability from most profitable to least profitable. In other words, rank the products in the order in which they should be emphasized.

- A. OP, KU, YY  
 B. YY, OP, KU  
 C. KU, YY, OP  
D. YY, KU, OP

	KU	OP	YY
Selling price per unit.....	\$104.89	\$528.09	\$558.03
Variable cost per unit.....	82.11	429.78	420.08
Contribution margin per unit (a).....	\$22.78	\$98.31	\$137.95
Amount of the constrained resource required to produce one unit (b).....	1.70	8.70	8.90
Contribution margin per unit of the constrained resource (a) ÷ (b).....	\$13.40	\$11.30	\$15.50
Ranking.....	2	3	1

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 12 #47*

*Learning Objective: 12-05 Determine the most profitable use of a constrained resource*

*Level: Easy*

49. Wright Company produces products I, J, and K from a single raw material input. Budgeted data for the next month follows:

	Product I	Product J	Product K
Units produced.....	1,500	2,000	3,000
Per unit sales value at split-off .....	\$10	\$12	\$15
Added processing costs per unit.....	\$2	\$4	\$4
Per unit sales value if processed further .....	\$15	\$15	\$20

If the cost of the raw material input is \$78,000, which of the products should be processed beyond the split-off point?

	Product I	Product J	Product K
A) yes	yes	yes	no
B) yes	yes	no	yes
C) no	no	yes	no
D) no	no	yes	yes

- A. Option A  
B. Option B  
 C. Option C  
 D. Option D

	Product I	Product J	Product K
Final sales value after further processing .....	\$15	\$15	\$20
Less sales value at split-off point .....	10	12	15
Incremental revenue from further processing .....	5	3	5
Less cost of further processing.....	2	4	4
Profit (loss) from further processing.....	\$ 3	\$(1)	\$ 1

Only Product I and Product K should be processed beyond the split-off point.

AACSB: Analytic

AICPA BB: Critical Thinking

AICPA FN: Measurement

Blooms: Application

Garrison - Chapter 12 #51

Learning Objective: 12-07 Prepare an analysis showing whether joint products should be sold at the split-off point or processed further

Level: Medium

50. Coakley Beet Processors, Inc., processes sugar beets in batches. A batch of sugar beets costs \$48 to buy from farmers and \$10 to crush in the company's plant. Two intermediate products, beet fiber and beet juice, emerge from the crushing process. The beet fiber can be sold as is for \$24 or processed further for \$16 to make the end product industrial fiber that is sold for \$36. The beet juice can be sold as is for \$44 or processed further for \$28 to make the end product refined sugar that is sold for \$70. How much profit (loss) does the company make by processing the intermediate product beet juice into refined sugar rather than selling it as is?

- A. \$(31)
- B. \$(60)
- C. \$(2)
- D. \$(12)

	<b>Refined Sugar</b>
Final sales value after further processing .....	\$70
Less sales value at split-off point .....	<u>44</u>
Incremental revenue from further processing .....	26
Less cost of further processing .....	<u>28</u>
Profit (loss) from further processing .....	<u><u>\$(2)</u></u>

*AACSB: Analytic*

*AICPA BB: Critical Thinking*

*AICPA FN: Measurement*

*Blooms: Application*

*Garrison - Chapter 12 #53*

*Learning Objective: 12-07 Prepare an analysis showing whether joint products should be sold at the split-off point or processed further*

*Level: Easy*



Blooms: Comprehension	2
Blooms: Comprehension	1
Blooms: Comprehension	1
Blooms: Comprehension	1
Blooms: Comprehension	1
Blooms: Comprehension	1
Blooms: Comprehension	1
Blooms: Comprehension	1
Blooms: Comprehension	1
Blooms: Comprehension	1
Blooms: Comprehension	1
Blooms: Knowledge	1
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Blooms: Knowledge	1
Blooms: Knowledge	1
Garrison - Chapter 08	12
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Garrison - Chapter 12	11
Learning Objective: 08-01 Understand why organizations budget and the processes they use to create budgets	2
Learning Objective: 08-02 Prepare a sales budget; including a schedule of expected cash collections	3
Learning Objective: 08-03 Prepare a production budget	3
Learning Objective: 08-04 Prepare a direct materials budget; including a schedule of expected cash disbursements for purchase of materials	2
Learning Objective: 08-06 Prepare a manufacturing overhead budget	1
Learning Objective: 08-08 Prepare a cash budget	1



Learning Objective: 09-01 Prepare a flexible budget	6
Learning Objective: 09-02 Prepare a report showing activity variances	2
Learning Objective: 09-03 Prepare a report showing revenue and spending variances	2
Learning Objective: 09-05 Prepare a flexible budget with more than one cost driver	2
Learning Objective: 10-01 Compute the direct materials quantity and price variances and explain their significance	5
Learning Objective: 10-02 Compute the direct labor efficiency and rate variances and explain their significance	4
Learning Objective: 10-03 Compute the variable manufacturing overhead efficiency and rate variances and explain their significance	2
Learning Objective: 10B-01 Compute the direct materials quantity and price variances and explain their significance	2
Learning Objective: 10B-02 Compute the direct labor efficiency and rate variances and explain their significance	1
Learning Objective: 10B-05 Prepare journal entries to record standard costs and variances	3
Learning Objective: 11A-05 Determine the range; if any; within which a negotiated transfer price should fall	3
Learning Objective: 12-01 Identify relevant and irrelevant costs and benefits in a decision	3
Learning Objective: 12-02 Prepare an analysis showing whether a product line or other business segment should be added or dropped	2
Learning Objective: 12-03 Prepare a make or buy analysis	1
Learning Objective: 12-05 Determine the most profitable use of a constrained resource	2
Learning Objective: 12-07 Prepare an analysis showing whether joint products should be sold at the split-off point or processed further	3
Level: Easy	24
Level: Hard	4
Level: Medium	22
Source: CIMA, adapted	1
Source: CMA, adapted	8