THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 44 THROUGH 47.

Shimon Corporation manufactures industrial-sized water coolers and uses budgeted machine-hours to allocate variable manufacturing overhead. The following information pertains to the company's manufacturing overhead data.

Budgeted output units 15,000 units

Budgeted machine-hours 5,000 hours

Budgeted variable manufacturing overhead costs for 15,000 units $161,250

Actual output units produced 22,000 units

Actual machine-hours used 7,200 hours

Actual variable manufacturing overhead costs $242,000

44. What is the budgeted variable overhead cost rate per output unit?

a. $10.75

b. $11.00

c. $32.25

d. $48.40

*Answer*: a *Difficulty*: 2 *Objective*: 2

$161,250/15,000 = $10.75

45. What is the flexible-budget amount for variable manufacturing overhead?

a. $165,000

b. $236,500

c. $242,000

d. none of the above

*Answer*: b *Difficulty*: 3 *Objective*: 2

22,000 x ($161,250/15,000)] = $236,500

46. What is the flexible-budget variance for variable manufacturing overhead?

a. $5,500 favorable

b. $5,500 unfavorable

c. $4,300 favorable

d. none of the above

*Answer*: b *Difficulty*: 3 *Objective*: 2

$242,000 – [22,000 x ($161,250/15,000)] = $5,500 unfavorable

47. Variable manufacturing overhead costs were \_\_\_\_\_\_\_\_\_\_ for actual output.

a. higher than expected

b. the same as expected

c. lower than expected

d. unable to be determined

*Answer*: a *Difficulty*: 2 *Objective*: 2

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 48 THROUGH 51.

White Corporation manufactures football jerseys and uses budgeted machine-hours to allocate variable manufacturing overhead. The following information pertains to the company's manufacturing overhead data.

Budgeted output units 20,000 units

Budgeted machine-hours 30,000 hours

Budgeted variable manufacturing overhead costs for 20,000 units $360,000

Actual output units produced 18,000 units

Actual machine-hours used 28,000 hours

Actual variable manufacturing overhead costs $342,000

48. What is the budgeted variable overhead cost rate per output unit?

a. $12.00

b. $12.21

c. $18.00

d. $19.00

*Answer*: c *Difficulty*: 2 *Objective*: 2

$360,000/20,000 = $18.00

49. What is the flexible-budget amount for variable manufacturing overhead?

a. $324,000

b. $342, 000

c. $380,000

d. none of the above

*Answer*: a *Difficulty*: 3 *Objective*: 2

18,000 x ($360,000/20,000)] = $324,000

50. What is the flexible-budget variance for variable manufacturing overhead?

a. $18,000 favorable

b. $18,000 unfavorable

c. zero

d. none of the above

*Answer*: b *Difficulty*: 3 *Objective*: 2

$342,000 – [18,000 x ($360,000/20,000)] = $18,000 unfavorable

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 57 AND 58.

Kellar Corporation manufactured 1,500 chairs during June. The following variable overhead data pertain to June.

Budgeted variable overhead cost per unit $ 12.00

Actual variable manufacturing overhead cost $16,800

Flexible-budget amount for variable manufacturing overhead $18,000

Variable manufacturing overhead efficiency variance $360 unfavorable

57. What is the variable overhead flexible-budget variance?

a. $1,200 favorable

b. $360 unfavorable

c. $1,560 favorable

d. $1,200 unfavorable

*Answer*: a *Difficulty*: 2 *Objective*: 3

$16,800 - $18,000 = $1,200 (F)

58. What is the variable overhead spending variance?

a. $840 unfavorable

b. $1,200 favorable

c. $1,200 unfavorable

d. $1,560 favorable

*Answer*: d *Difficulty*: 2 *Objective*: 3

$1200 (F) - $360 (U) = $1,560 (F)

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 59 AND 60.

Patel Corporation manufactured 1,000 coolers during October. The following variable overhead data pertain to October.

Budgeted variable overhead cost per unit $ 9.00

Actual variable manufacturing overhead cost $8,400

Flexible-budget amount for variable manufacturing overhead $9,000

Variable manufacturing overhead efficiency variance $180 unfavorable

59. What is the variable overhead flexible-budget variance?

a. $600 favorable

b. $420 unfavorable

c. $780 favorable

d. $600 unfavorable

*Answer*: a *Difficulty*: 2 *Objective*: 3

$8,400 - $9,000 = $600 (F)

60. What is the variable overhead spending variance?

a. $420 unfavorable

b. $600 favorable

c. $600 unfavorable

d. $780 favorable

*Answer*: d *Difficulty*: 2 *Objective*: 3

$600 (F) - 180 (U) = $780 (F)

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 61 THROUGH 64.

Roberts Corporation manufactured 100,000 buckets during February. The overhead cost-allocation base is $5.00 per machine-hour. The following variable overhead data pertain to February.

Actual Budgeted

Production 100,000 units 100,000 units

Machine-hours 9,800 hours 10,000 hours

Variable overhead cost per machine-hour $5.25 $5.00

61. What is the actual variable overhead cost?

a. $49,000

b. $50,000

c. $51,450

d. none of the above

*Answer*: c *Difficulty*: 1 *Objective*: 3

9,800 mh x $5.25 = $51,450

62. What is the flexible-budget amount?

a. $49,000

b. $50,000

c. $51,450

d. none of the above

*Answer*: b *Difficulty*: 2 *Objective*: 3

10,000 mh x $5.00 = $50,000

63. What is the variable overhead spending variance?

a. $1,000 favorable

b. $1,450 unfavorable

c. $2,450 unfavorable

d. none of the above

*Answer*: c *Difficulty*: 2 *Objective*: 3

($5.25-$5.00) x 9,800 mh = $2,450 unfavorable

64. What is the variable overhead efficiency variance?

a. $1,000 favorable

b. $1,450 unfavorable

c. $2,450 unfavorable

d. none of the above

*Answer*: a *Difficulty*: 2 *Objective*: 3

[9,800 – 10,000] x $5.00 = $1,000 favorable

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 65 THROUGH 68.

Roberson Corporation manufactured 30,000 ice chests during September. The overhead cost-allocation base is $11.25 per machine-hour. The following variable overhead data pertain to September.

Actual Budgeted

Production 30,000 units 24,000 units

Machine-hours 15,000 hours 10,800 hours

Variable overhead cost per machine-hour: $11.00 $11.25

65. What is the actual variable overhead cost?

a. $121,500

b. $151,875

c. $165,000

d. $168,750

*Answer*: c *Difficulty*: 1 *Objective*: 3

15,000 mh x $11.00 = $165,000

66. What is the flexible-budget amount?

a. $121,500

b. $151,875

c. $165,000

d. $168,750

*Answer*: b *Difficulty*: 3 *Objective*: 3

[30,000 x (10,800/24,000)] x $11.25 = $151,875

67. What is the variable overhead spending variance?

a. $3,750 favorable

b. $16,875 unfavorable

c. $13,125 unfavorable

d. $30,375 unfavorable

*Answer*: a *Difficulty*: 3 *Objective*: 3

($11.00-$11.25) x 15,000 mh = $3,750 favorable

68. What is the variable overhead efficiency variance?

a. $3,750 favorable

b. $16,875 unfavorable

c. $13,125 unfavorable

d. $30,375 unfavorable

*Answer*: b *Difficulty*: 3 *Objective*: 3

**[15,000 - (30,000 x .45) mh] x $11.25 = $16,875 unfavorable**

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 81 THROUGH 84.

Jenny’s Corporation manufactured 25,000 grooming kits for horses during March. The fixed-overhead cost-allocation rate is $20.00 per machine-hour. The following fixed overhead data pertain to March.

Actual Static Budget

Production 25,000 units 24,000 units

Machine-hours 6,100 hours 6,000 hours

Fixed overhead costs for March $123,000 $120,000

81. What is the flexible-budget amount?

a. $120,000

b. $122,000

c. $123,000

d. $125,000

*Answer*: a *Difficulty*: 2 *Objective*: 5

$120,000, the same lump sum as the static budget

82. What is the amount of fixed overhead allocated to production?

a. $120,000

b. $122,000

c. $123,000

d. $125,000

*Answer*: d *Difficulty*: 3 *Objective*: 5

[25,000 x (6,000/24,000)] x $20.00 = $125,000

83. What is the fixed overhead spending variance?

a. $1,000 unfavorable

b. $2,000 favorable

c. $3,000 unfavorable

d. $5,000 favorable

*Answer*: c *Difficulty*: 3 *Objective*: 5

$123,000 actual costs - $120,000 budgeted cost = $3,000 unfavorable

84. What is the fixed overhead production-volume variance?

a. $1,000 unfavorable

b. $2,000 favorable

c. $3,000 unfavorable

d. $5,000 favorable

*Answer*: d *Difficulty*: 3 *Objective*: 5

$120,000 - [25,000 x (6,000/24,000) x $20.00] = $5,000 favorable

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 85 THROUGH 88.

Matthew’s Corporation manufactured 10,000 golf bags during March. The fixed overhead cost-allocation rate is $20.00 per machine-hour. The following fixed overhead data pertain to March.

Actual Static Budget

Production 10,000 units 12,000 units

Machine-hours 5,100 hours 6,000 hours

Fixed overhead cost for March $122,000 $120,000

85. What is the flexible-budget amount?

a. $100,000

b. $102,000

c. $120,000

d. $122,000

*Answer*: c *Difficulty*: 2 *Objective*: 5

$120,000, the same lump sum as the static budget

86. What is the amount of fixed overhead allocated to production?

a. $100,000

b. $102,000

c. $120,000

d. $122,000

*Answer*: a *Difficulty*: 3 *Objective*: 5

[10,000 x (6,000/12,000)] x $20.00 = $100,000

87. What is the fixed overhead production-volume variance?

a. $2,000 unfavorable

b. $18,000 favorable

c. $20,000 unfavorable

d. $22,000 unfavorable

*Answer*: c *Difficulty*: 3 *Objective*: 5

$120,000 - [10,000 x (6,000/12,000) x $20.00] = $20,000 unfavorable

88. Fixed overhead is

a. overallocated by $2,000.

b. underallocated by $2,000.

c. overallocated by $22,000.

d. underallocated by $22,000.

*Answer*: d *Difficulty*: 3 *Objective*: 5

$122,000 - [10,000 x (6,000/12,000) x $20.00] = $22,000 underallocated

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 111 THROUGH 115.

**Production-**

**Variances Spending Efficiency Volume**

Variable manufacturing overhead $ 4,500 F $15,000 U (B)

## Fixed manufacturing overhead $10,000 U (A) $40,000 U

111. Above is a

a. 4-variance analysis.

b. 3-variance analysis.

c. 2-variance analysis.

d. 1-variance analysis.

*Answer*: a *Difficulty*: 1 *Objective*: 7

112. In the above chart, the amounts for (A) and (B), respectively, are

a. $10,500 U; $55,000 U

b. $10,500 U; Zero

c. Zero; $55,000 U

d. Zero; Zero

*Answer*: d *Difficulty*: 1 *Objective*: 7

113. In a 3-variance analysis the spending variance should be

a. $ 4,500 F.

b. $10,000 U.

c. $ 5,500 U.

d. $10,500 U.

*Answer*: c *Difficulty*: 1 *Objective*: 7

$4,500 F + $10,000 U = $ 5,500 U

114. In a 2-variance analysis the flexible-budget variance and the production-volume variance should be \_\_\_\_\_\_\_\_\_\_, respectively.

a. $5,500 U; $55,000 U

b. $20,500 U; $40,000 U

c. $10,500 U; $50,000 U

d. $60,500 U; Zero

*Answer*: b *Difficulty*: 2 *Objective*: 7

$4,500 F + $10,000 U + $15,000 U = $20,500 U; $40,000 U

115. In a 1-variance analysis the total overhead variance should be

a. $20,500 U.

b. $60,500 U.

c. $121,000 U.

d. none of the above.

*Answer*: b *Difficulty*: 2 *Objective*: 7

$4,500 F + $10,000 U + $15,000 U + $40,000 U = $60,500 U

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 116 THROUGH 120.

Munoz, Inc. produces a special line of plastic toy racing cars. Munoz, Inc. produces the cars in batches. To manufacture a batch of the cars, Munoz, Inc. must set up the machines and molds. Setup costs are batch-level costs because they are associated with batches rather than individual units of products. A separate Setup Department is responsible for setting up machines and molds for different styles of car.

Setup overhead costs consist of some costs that are variable and some costs that are fixed with respect to the number of setup-hours. The following information pertains to June 2004.

Actual Static-budget

Amounts Amounts

Units produced and sold 15,000 11,250

Batch size (number of units per batch) 250 225

Setup-hours per batch 5 5.25

Variable overhead cost per setup-hour $40 $38

Total fixed setup overhead costs $14,400 $14,000

116. Calculate the efficiency variance for variable setup overhead costs.

a. $1,500 unfavorable

b. $525 favorable

c. $975 unfavorable

d. $1,500 favorable

*Answer*: a *Difficulty*: 3 *Objective*: 8

[(11,250 / 225) x 5.25 x $40] – [(11,250 / 250) x 5 x $40] = $1,500 (U)

117. Calculate the spending variance for variable setup overhead costs.

a. $1,500 unfavorable

b. $525 favorable

c. $975 unfavorable

d. $1,500 favorable

*Answer*: b *Difficulty*: 3 *Objective*: 8

(11,250 / 225) x 5.25 x ($38 - $40) = $525 (F)

118. Calculate the flexible-budget variance for variable setup overhead costs.

a. $1,500 unfavorable

b. $525 favorable

c. $975 unfavorable

d. $1,500 favorable

*Answer*: c *Difficulty*: 3 *Objective*: 8

$1,500 (U) + $525 (F) = $975 (U)

119. Calculate the spending variance for fixed setup overhead costs.

a. $3,200 unfavorable

b. $400 unfavorable

c. $3,600 unfavorable

d. $400 favorable

*Answer*: b *Difficulty*: 3 *Objective*: 8

$14,000 - $14,400 = $400 (U)

120. Calculate the production-volume variance for fixed setup overhead costs.

a. $3,200 unfavorable

b. $400 unfavorable

c. $3,600 unfavorable

d. $400 favorable

*Answer*: c *Difficulty*: 3 *Objective*: 8

Normal setup hours = (15,000 / 250) x 5 = 300 hours

OH rate = $14,400 / 300 = $48 per setup hour

$14,400 – [(11,250 / 250) x 5 x $48] = $3,600 (U)