Accounting 285 –Final - Spring 2004

Exam Instructions:

1. Use a number 2 pencil to complete the answer sheet. You may use a calculator, but no communication devices are permitted (cell phones, computers, PDAs.)

2. Be sure that the pre-printed number on your answer sheet corresponds to the pre-printed number on your exam. Then, write your name on both the exam and the answer sheet. On the answer sheet, you need to fill in your name and your full (nine digit) student identification number.

3. When multiple questions use the same common information, answer each question independently of the other questions using the information that is given prior to the first question.

4. Under Special Codes:

   Column K mark your section number:  
   1 for Section A (TR 12:40)
   2 for Section B (TR 8:00)
   3 for Section C (TR 9:30)
   4 for Section D (MWF 9:00)
   5 for Section E (MWF 10:00)

   Columns L M and N: write the last three digits of the exam number printed at the top of your exam.

5. You will have 2 hours (120 minutes) to complete the exam. The exam ends at 9:00 PM.

6. There are 30 questions on the exam. Make sure you have 30 questions and that you answer them all.

7. Select the best answer to each question and mark it on your answer sheet. You receive zero points for an incorrect answer, so if you don’t know the answer to a question, you should at least guess. We advise that you also circle the answer on your exam booklet for future reference or in case you have problems with your answer sheet.

8. When you finish the exam, please bring it to the front of the room with your answer sheet and your photo ID, along with the rest of your personal belongings. Plan to leave the room without returning to your seat.
Hamilton Company budgets sales as follows for the first six months of 2005:

<table>
<thead>
<tr>
<th>Month</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>February</td>
<td>$1,200,000</td>
</tr>
<tr>
<td>March</td>
<td>$1,350,000</td>
</tr>
<tr>
<td>April</td>
<td>$1,230,000</td>
</tr>
<tr>
<td>May</td>
<td>$1,190,000</td>
</tr>
<tr>
<td>June</td>
<td>$1,300,000</td>
</tr>
</tbody>
</table>

Sales are collected 40% in the month in which they are made, with the remaining 60% being collected in the next month. What are accounts receivable at the end of March?

a. $1,350,000  
b. $1,260,000  
c. $540,000  
d. $810,000

A cost is $500 per unit at a volume of 50 units, and $500 per unit at a volume of 100 units. The cost is:

a. fixed  
b. variable  
c. mixed (i.e., semi-variable)  
d. undefined

3. A cost is $4 per unit at a volume of 14,000 units and $5 per unit at a volume of 11,200 units. The cost is:

a. fixed  
b. variable  
c. mixed (i.e., semi-variable)  
d. undefined

4. Division S of a company has capacity to produce 200,000 widgets annually and is currently producing and selling 170,000 widgets externally at a price of $90 per unit. The variable cost of the widget is $42 per unit and the annual fixed costs are $9,000,000. Division T of the same company needs 20,000 widgets annually to produce its product. Division T is currently purchasing the widgets externally for $85 per widget. If the widgets are transferred internally, $4 of commission per unit that is included in the variable cost of the widgets could be avoided. Which of the following does NOT represent a transfer price that would improve divisional profitability for both divisions?

a. $40  
b. $80  
c. $87  
d. $62
10. A company is initially planning to produce 20,000 units for the year and has budgeted $300,000 of production costs to produce those 20,000 units. The $300,000 consists of $200,000 of fixed production cost, and $100,000 of variable production cost. The company actually produces 24,000 units during the year. What is the total cost in the flexible budget that should be used to compare with actual production costs?

a. $300,000  

\[ 200,000 + \$5 \text{ per unit} \times 24,000 = \$320,000 \]

b. $360,000

c. $320,000

d. not enough information to determine an answer

11. A company has a selling price of $30 per unit, variable costs of $12 per unit, and fixed costs of $360,000. How many units must be sold to earn a profit of $90,000? Ignore income taxes.

\[ \frac{360,000 + 90,000}{30 - 12} = 20,000 \]

a. 15,000

b. 25,000

c. 20,000

d. 37,500

**Use the following information for the next 2 questions.**

A company has a selling price of $31 per unit, variable production cost of $19 per unit, variable selling and administrative cost of $3 per unit, fixed production costs of $500,000 per year and fixed selling and administrative costs of $200,000 per year. There were 200,000 units produced and 180,000 units sold during the year. There was no beginning inventory.

12. What is the cost of one unit of ending inventory if the company uses Variable Costing?

a. $19.00

b. $31.00

c. $22.00

d. $21.50

13. What is income for the year using variable costing?

a. $5,580,000

b. $920,000

c. $1,150,000

d. $860,000

\[ \frac{31 \times 180,000 - 19 \times 180,000 - 3 \times 180,000}{10} = 162,000 \]

14. Activity based costing

a. provides more accurate product cost information by using multiple cost pools

b. simplifies product costing

c. will generally increase the cost of the high volume products produced by a company

d. all of the above
Use the following information for the next 8 questions

Air Products Company, which uses a Standard Costing System, and applies overhead based on direct labor hours, developed the following standard costs for a case of its beach balls:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Material</td>
<td>15 ounces @ $0.12/ounce</td>
<td>$1.80</td>
</tr>
<tr>
<td>Direct Labor</td>
<td>0.25 hours @ $16.00/hour</td>
<td>4.00</td>
</tr>
<tr>
<td>Overhead</td>
<td>0.25 hours @ $8.00/hour*</td>
<td>2.00</td>
</tr>
<tr>
<td>Standard Cost per Case</td>
<td></td>
<td><strong>$7.80</strong></td>
</tr>
</tbody>
</table>

*Overhead consists of $2.00 per hour variable overhead and $6.00 per hour fixed overhead.

It was expected that 2,000 standard labor hours would be worked when establishing the fixed overhead rate.

During March, 9,900 cases were produced, and the following costs were incurred:

- 150,000 ounces of material were purchased and 148,000 ounces were used.
- Purchase price for material was $0.13 per ounce
- 2,450 hours of direct labor made $15.85/hour
- Actual overhead was $18,750

15. What is the total standard cost of all the units produced during March?
   a. $77,220
   b. $17,820
   c. $39,600
   d. $57,420

\[ 7.80 \times 9,900 = 77,220 \]

16. What is the budgeted fixed overhead?
   a. $3,000
   b. $12,000
   c. $16,000
   d. $14,850

\[ 6.00/\text{hr} \times 2,000 = 12,000 \]

17. What is the overhead volume variance?
   a. $0
   b. $1,900 F
   c. $1,050 F
   d. $2,850 F

18. What is the direct labor wage rate variance?
   a. $368 F
   b. $368 U
   c. $371 F
   d. $371 U

\[ 2.00 \times 9,900 = 19,800 \]

\[ 2,450 \times (15.85 - 16.00) = -368 \]

\[ 2450 \times (16.00 - 15.85) = 368 \]
19. What is the direct material price variance, when the price variance is isolated at the point when the materials are purchased?
   a. $1,500 F  
   b. $1,500 U  
   c. $1,480 F  
   d. $1,480 U

20. What is the direct labor efficiency variance?
   a. $100 F  
   b. $396 F  
   c. $400 F  
   d. $396 U

21. What is the amount of applied overhead?
   a. $16,950  
   b. $19,800  
   c. $16,000  
   d. $18,750

22. What is the direct materials usage (quantity) variance?
   a. $60 F  
   b. $180 U  
   c. $900 F  
   d. $900 U

23. Inlay Company allocates overhead using direct labor hours and a predetermined overhead rate (a normal costing system). At the beginning of the year, it was estimated that overhead cost would be $800,000, and that 40,000 direct labor hours would be worked. At the end of the year, actual labor hours were 42,000, and actual overhead was $821,000. What is the predetermined overhead application rate per direct labor hour to be used during the year?
   a. $20.00  
   b. $19.55  
   c. $20.53  
   d. $19.05

24. A company allocates total actual photocopying costs based on the actual number of copies used. The Accounting Department uses 15,000 copies; the total copies used are 300,000. The total copying cost is $9,000. How much copying cost should be allocated to the Accounting Department?
   a. $9,000  
   b. $450  
   c. $4,500  
   d. $6,000
25. If your required rate of return (i.e., your discount rate) is greater than zero, a payment of $5,000 to be received one year from today is worth
a. less than $5,000 today.
b. exactly $5,000 today.
c. more than $5,000 today.
d. an indeterminate amount which may be greater than, equal to, or less than $5,000 today.

26. A company is trying to decide whether to keep or drop the sporting goods department in its department store. If the segment is dropped, the manager will be fired. The manager’s salary, in relation to the decision to keep or drop the sporting goods department, is
a. avoidable and therefore relevant
b. not avoidable and therefore relevant
c. sunk and therefore not relevant
d. the same for all alternatives and therefore not relevant

27. Projects A and B, which have the same cost of capital, both have an initial outflow of $100,000. Project A will return a cash flow of $30,000 each year for the next 5 years. Project B will return $40,000 in year 1, $30,000 in year 2, $30,000 in year 3, $30,000 in year 4 and $20,000 in year 5. Which project will have the higher net present value?

a. A
b. Cannot answer without knowing the cost of capital
c. They have the same net present value

28. GW Corporation’s expected manufacturing costs are summarized below

| Variable costs          | Direct material | $16.30 per unit |
|------------------------|----------------|-----------------
|                        | Direct labor   | $15.80 per unit |
| Fixed costs per month  |                | $12.00 per unit |

| Factory depreciation   | $12,000        |
| Supervisory salaries   | 16,800         |
| Other fixed factory costs | 2,500         |

Which of the following is the flexible budget equation for GW Corporation?

a. $44.10 * number of units produced
c. $75.40 * number of units produced
d. $43,300 + ($32.10 * number of units produced)
29. A decentralized division with full decision-making autonomy is operating at capacity. Another division of the same company wishes to purchase a product from them. The selling division should:

a. never consider making the transfer
b. make the transfer if the contribution margin on the transfer will be greater than the lost contribution margin on outside sales
c. always make the transfer since they are in the same company
d. make the transfer if the transfer price is above the variable cost of the item

30. Healthfood Company makes soybean oil and soy meal out of soybeans. The soy meal may be processed further into soy burgers. The joint cost allocated to soy meal using the relative sales value method is $20,000. The soy meal can be sold for $35,000 as is. Processing the soy meal into soy burgers will cost $28,000, and the soy burgers will then sell for $80,000. Should the soy meal be processed into soy burgers?

a. Yes
b. No
c. It makes no difference
d. Cannot answer without knowing the total joint cost

\[
\begin{array}{c|c|c}
\hline
\text{Sell now for} & 35,000 & \text{Net gain} \\
\text{Sell as burgers for} & 80,000 & 45,000 \\
\text{Revenue} & & 28,000 \\
\text{Cost} & & \hline
\text{Net gain} & & \text{\$17,000} \\
\hline
\end{array}
\]