Accounting 305

Cost Accounting

Examination 2

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Name Riyadh Alhamrani

This is an open book/open note examination. You have 2 hours and 10 minutes to complete it and may use a calculator. Computer access is not allowed. **Please write on only one side of any paper submitted to be graded.** You may use your own paper when needed. **I WILL ONLY GRADE THE FRONT SIDE OF ANY PAPER SUBMITTED!!**

1. (40 points) Harper Production Company produces inventory in a highly automated assembly plant in Yakima, Washington. The automated system is in its first year of operations and management is still unsure of the best way to estimate the overhead costs for budgetary purposes. For the first twelve months of operations, the following data were collected:

Observation	MH	DLH	Total Overhead Costs
January	5,600	2,000	$320,000
February	7,000	2,500	340,000
March	8,000	4,000	470,000
April	8,400	3,300	440,000
May	6,400	2,250	300,000
June	8,000	2,600	390,000
July	6,800	3,000	420,000
August	8,000	2,500	400,000
September	6,500	3,250	430,000
October	6,000	2,300	400,000
November	9,600	3,600	460,000
December	6,000	2,750	380,000

Required:

$\frac{470,000 - 320,000}{8000 - 5600} = 62.5$

a. Estimate the following equation using the high-low method:

OH Costs = a + b (MH)

b. Answer the following questions using the Excel regression printouts:

i. What are the three regression models estimated?

ii. Which model is best? Justify your answer.

iii. What is the estimated overhead costs assuming you use the second model, and that the company used 4,000 direct labor hours and used 9,000 machine hours?

iv. What is the 95 percent confidence interval around the slope coefficient in the first model?

v. What is the 99 percent confidence interval around the slope coefficient in the first model?

i)

ii) The best model is model # 1 because the R^2 is better

iii) 190,082.341 + 28.610

iv)

78.420

5

2. (35 points) Parker Company has the following information pertaining to the purchase of a new piece of equipment:

Cash revenues	$330,000 per year
Cash expenses	$200,000 per year
Cost of equipment	$380,000
Salvage value at the end of the 7th year	$60,000
Tax rate	40 percent
Life	8 years
Depreciation	Straight-line method

Cost of capital is 12 percent.

Required:

a. Calculate the after-tax cashflows for the first year.

b. Calculate the accounting rate of return on average investment for year 1.

c. Calculate the payback period.

d. Calculate the net present value (NPV).

e. Calculate the internal rate of return (IRR).

8 a) $330,000 \times 40\% - 132000/8 = 16500$ (Net Income + Depreciation + Amortization)

5 b)

3 c) $\frac{330,000}{2} = 165,000$

8 d) $PV = \frac{FV}{(1+i)^n}$

2

7 e) $\frac{330,000}{7} = 47142.86 \div 165,000 = 0.29$

3. (40 points) Carter Processing blends a special product in a one department process. Materials are added at the **beginning** of the process and conversion costs are **uniformly** incurred. At the beginning of March, the work-in-process is 30 percent complete and at the end of the month it is 60 percent complete. Other data for the month include:

Cost of direct materials incurred in March	$255,000
Conversion costs incurred in March	$158,000
Beginning work-in-process costs:	
Materials	$145,000
Conversion	$22,000
Beginning work-in-process inventory	15,000 units
Units started	25,000 units
Ending work-in-process inventory	10,000 units

Process costing

Required:

Use the weighted-average method to answer (a) through (e) for March:

a. Calculate the equivalent units for materials and for conversion costs?

b. What is the total amount of dollars to be accounted for by Carter in March?

c. Compute the cost per equivalent units for materials and for conversion costs.

d. How many dollars will be assigned to ending work-in-process inventory?

e. How many dollars will be assigned to units transferred out to finished goods?

f. Give me the journal entry to record the transfer to finished goods.

g. Calculate the equivalent units for materials and for conversion costs using the FIFO method?

a)

+0
-40

4. (25 points) Packer Company produces three different products, A, B and C. Data on operations and costs for the month are:

	A	B	C	Total
Machine hours	3,000	5,000	2,000	10,000
Direct labor hours	25,000	15,000	10,000	50,000
Units produced	5,000	2,000	1,000	8,000
Direct material costs	$50,000	$28,000	$30,000	$108,000
Direct labor costs	220,000	95,000	62,000	377,000
Manufacturing overhead costs				270,000
Total costs				$755,000

Required:

a. Determine the predetermined overhead rate if Packer Company uses machine hours to allocate overhead costs.
b. Compute the **unit cost** for each model (A, B and C) assuming that machine hours are used to allocate overhead costs.
c. Determine the predetermined overhead rate if Kerrington Corporation uses direct labor hours to allocate overhead costs.
d. Compute the **unit cost** for each model (A, B and C) assuming that direct labor hours are used to allocate overhead costs.

a) 755,000 / 50,000 = 15.1

b)

+3

-22

5. (30 points) Keith Company uses a job-order costing system and a predetermined overhead rate based on machine hours.

The following information pertains to June of the current year:

	Job A	Job B	Job C	Totals
Work in process, June 1	$40,000	$60,000	$50,000	$150,000
June production activity:				
Materials requisitioned and used	$30,000	$40,000	$30,000	$100,000
Direct labor costs	$15,000	$30,000	$45,000	$90,000
Machine hours	2,000	3,000	4,000	9,000

At the beginning of the year, the company estimated manufacturing overhead for the year would be $300,000 and machine hours used would be 20,000.

Required:

a. Compute the predetermined overhead rate.

b. Determine the total cost associated with each job.

Job A
Job B
Job C

c. Give the general journal entry to record the total amount of materials requisitioned and used in June.

d. Give the general journal entry to record total amount of overhead applied in June.

e. Give the general journal entry to record when Job A was completed.

+0
30

6. (30 points) Wilson Company had the following selected account balances at the end of 2013:

Work in Process	$120,000
Finished Goods	180,000
Cost of Goods Sold	300,000
Factory Overhead overapplied	30,000
Amount of Factory Overhead Applied in 2013	250,000

Required:

a. Give the journal entry to record the factory overhead applied.

b. What was the actual overhead for the year?

c. Give the journal entry to dispose of the Factory Overhead account balances assuming it is written off to Cost of Goods Sold.

d. Give the journal entry to dispose of the Factory Overhead account balances assuming it is allocated among Work in Process, Finished Goods, and Cost of Goods Sold based on ending balances.

e. Which method of disposing of under- or overapplied factory overhead cost is more accurate? Explain.

+0

-30