ACCO 330

MIDTERM EXAM

SAMPLE QUESTIONS

Question 1 (24 Multiple Choice Questions) (45-55 minutes) **(30 marks)**

Choose the Best answer of the following multiple-choice questions. Write your answers on the FRONT PAGE of the ANSWER BOOKLET.

1. Which of the following is not a typical component of a flexible manufacturing system (FMS)?
A) Computerized network.
B) Automated equipment.
C) Robots.
D) Reengineering.
E) Stand-alone, computer-controlled machines. **(1 mark)**

2. Which of following statements is/are true concerning strategic positioning?
A) Once a firm has chosen a position, it is unwise to change it, even though the company or business environment might change.
B) If a firm does decide to compete on more than one strategic position, it runs the risk of getting "stuck in the middle" between the various positions.
C) Since the business environment is always changing, rather than stick constantly with one strategic position, firms should pay close attention during times of change, and adjust their strategies accordingly.
D) Answers A and C are both true.
E) Answers B and C are both true. **(1 mark)**

3. With regard to critical success factors, which one of the following would not be considered a financial measure of success?
A) Cash Flow.
B) Brand Growth.
C) Sales Growth.
D) Earnings Growth.
E) Dividend Growth. **(1 mark)**

4. Which one of the following is not usually included in the balanced scorecard as a group of CSFs?
A) Financial Performance.
B) Competitive Strategy.
C) Learning and Innovation.
D) Customer Satisfaction.
E) Internal Business Processes. **(1 mark)**

5. Which of the following describes the type of information that cost management must provide that is not provided by traditional cost accounting systems?
A) Information of a record keeping nature.
B) Reported financial information.
C) Reported nonfinancial information.
D) Information that addresses the strategic objectives of the firm.
E) Long-term planning information. **(1 mark)**

6. Which of the following would not be a possible perspective of a Balanced Scorecard in a strategy map?
A) Learning and Innovation.
B) Internal Processes.
C) Financial Performance.
D) Customer.
E) None of the above. **(1 mark)**

7. Variable costs within the relevant range for a firm are assumed:
A) Not to vary per unit.
B) Not to vary in total.
C) To be nonlinear.
D) To be curvilinear.
E) Both answer A and answer C are correct. **(1 mark)**

8. How will unit (or average) cost of manufacturing (materials, labor and overhead) usually change if the production level rises?
A) It will remain constant.
B) It will increase in direct proportion to the production increase.
C) It will increase, but inversely with the production increase.
D) It will decrease inversely and in direct proportion to the production increases.
E) It will decrease, but not in direct proportion to the production increase. **(1 mark)**

9. Which of the following provides a timely estimate of the cost of producing each batch of product?
A) Actual costing system.
B) Standard costing system.
C) Normal costing system.
D) Industry costing system.
E) None of the above. **(1 mark)**

10. From the industries listed below, which one is most likely to use process costing in accounting for production costs?
A) Printing shop.
B) Accounting firm.
C) Electrical contractor.
D) Steel mill.
E) Automobile repair shop. **(1 mark)**

The following information pertains to questions 11 to 15:

The assembly department of ABC, Inc. uses weighted average process costing method. It began the month of January 2008 with 8,000 units in beginning work-in-process, which were 75% complete. During the period, work was begun on an additional 45,000 units. Direct materials are added when the goods are 50% complete, labor is added when the units are 30% complete and overhead is incurred uniformly. Units are inspected for rework when they are 70% complete. Rejected units are returned to 40% complete point for rework. Normal rework is 2 percent of the units surviving inspection. During the period, 42,000 units were inspected for rework. An inspection for spoilage occurs when the units are 80% complete. Normal spoilage is 1 percent of units inspected. This period, 600 units were spoiled. Ending work-in-process on January 31st, consisted of 4,000 units, 25% complete.

11. The number of equivalent units of direct material in normal spoilage was:
   A) 400
   B) 490
   C) 0
   D) 500
   E) None of the above. **(1 mark)**

12. The number of equivalent units of overhead in normal spoilage was:
   A) 392
   B) 400
   C) 380
   D) 0
   E) None of the above. **(1 mark)**

13. The number of equivalent units of direct labor in normal rework was:
   A) 1,000
   B) 0
   C) 950
   D) 820
   E) None of the above. **(1 mark)**

14. The number of equivalent units of overhead in normal rework was:
   A) 250
   B) 325.50
   C) 246
   D) 0
   E) None of the above. **(1 mark)**

15. The number of equivalent units of direct labor in abnormal spoilage was:
   A) 0
   B) 110
   C) 100
   D) 75
   E) None of the above. **(1 mark)**

16. The accounts at year end of Hippo Manufacturing contained the following items:

- Finished goods (FG) had one completed job that had not been sent out to the customer. The total cost of $280,000 for this job included $48,000 in current applied manufacturing overhead.
- Work-in-process (WIP) inventory had a balance of $750,000, which included $92,000 in current applied manufacturing overhead.
- Cost of goods sold (CGS) for the year was $3,070,000, of which $460,000 is current applied manufacturing overhead.
- The manufacturing overhead account had a debit balance of $300,000 remaining after overhead had been applied using the predetermined overhead rate.

What is the *most* accurate disposition of the remaining balance in the manufacturing overhead account? (Consider the overhead variance amount to be significant)

A) To debit work-in-process inventory by $46,000, debit finished goods inventory by $24,000, and debit cost of goods sold by $230,000.
B) To debit cost of goods sold by $300,000.
C) To debit work-in-process inventory by $75,000, debit finished goods inventory by $75,000, and debit cost of goods sold by $75,000.
D) To credit work-in-process inventory by $46,000, credit finished goods inventory by $24,000, and credit cost of goods sold by $230,000.
E) None of the above. **(1 mark)**

Use the following information to answer questions 17 and 18

Last month, the painting department of Surfaces Company started 20,000 units into production. The department had 6,000 units in process at the beginning of the month and these were 30%complete with respect to conversion costs. There were 8,000 units in process at the end of the month, which were 40% complete with respect to conversion costs. A total of 18,000 units were completed and transferred to the next department during the month.

17. Under the weighted-average method, what would the equivalent units of production for conversion costs for the month be?

A) 18,800
B) 21,000
C) 21,200
D) 23,000
E) None of the above. **(1 mark)**

[redacted]

19. The following information is available for the manufacturing operations of ABC Ltd. for the month of March:

Direct materials purchased	$82,000
Direct labour payroll	$60,000
Direct labour rate per hour	$15.00
Factory overhead rate per direct labour hour	$10.00

	Opening Inventory March 1	Ending Inventory March 31
Direct materials	$30,000	$37,000
Work in process	$12,000	$18,000
Finished goods	$72,000	$93,000

Cost of goods available for sale for the month of March is

A) $241,000.
B) $169,000.
C) $148,000.
D) $187,000.
E) $175,000.

(1.5 mark)

20. Company F has two production departments, A and B, and two service departments, janitorial and personnel. Personnel costs are allocated based on number of employees and janitorial costs are allocated based on size of the department in square meters.

Departments	No. of Employees	Sq. Meters	Direct Costs
A	150	10,000	$ 750,000
B	200	20,000	600,000
Janitorial	25	1,000	25,000
Personnel	15	2,000	18,000
Total	390	33,000	$1,393,000

Under the reciprocal allocation method, what amount of personnel costs would be allocated to Department B (round to the nearest dollar)?

A) $7,585
B) $8,733
C) $9,866
D) $10,477
E) None of the above

(2 marks)

Use the following information to answer questions 21 and 22.

The Rest-a-Lot chair company manufacturers a standard recliner. During February, the firm's Assembly Department started production of 75,000 chairs. During the month, the firm completed 80,000 chairs, and transferred them to the Finishing Department. The firm ended the month with 10,000 chairs in ending inventory. There were 15,000 chairs in beginning inventory. All direct materials costs are added at the beginning of the production cycle and conversion costs are added uniformly throughout the production process. The FIFO method of process costing is used by Rest-a-Lot. Beginning work in process was 30% complete as to conversion costs, while ending work in process was 80% complete as to conversion costs.

Beginning inventory:

Direct materials	$24,000
Conversion costs	$35,000

Manufacturing costs added during the accounting period:

Direct materials	$168,000
Conversion costs	$278,000

21. What is the amount of direct materials cost assigned to ending work-in-process inventory at the end of February?

A) $22,400
B) $19,200
C) $22,500
D)$25,600
E) None of the above

(2 marks)

22. What is the cost of the goods transferred out during February?

A) $417,750
B) $505,000
C) $476,750
D) $455,968
E) None of the above

(2 marks)

The following information pertains to questions 23 and 24.

Ex Company. which produces a single product began operations on January 1, Year 1. Material A is added at the start of the production process and packaging material B is added at the very end of the process. Conversion costs are incurred uniformly throughout the process. Inspection takes place when manufacturing is completed, but before packaging material B is added. Spoiled units are discarded. Normal spoilage for this production process is 4% of good output. Production data for the first quarter of Year 1 was as follows:

Units started	18,000 units
Good units completed and transferred-out	15,000 units
Ending work-in-process inventory	2,000 units

Using a weighted average process costing system, Ex Company incurred the following costs per equivalent unit during the first quarter:

Material A	$11.00
Material B	$0.80
Conversion costs	$15.00

The cost: of ending work-in-process inventory using weighted average process costing was $34,000.

23. The loss from abnormal spoilage for the first quarter was

A) $16,080.
B) $10,720.
C) $10,400.
D) $15,600.
E) $26,800. **(2 marks)**

24. In terms of conversion, what was the percentage of completion of the ending work-in-process inventory?

A) 65.4%
B) 34.7%
C) 54.5%
D) 40.0%
E) 63.4% **(2 marks)**

Answer Key

Solution MCQ Question 1 (30 marks)

1. D **(1 mark)**
2. E **(1 mark)**
3. B **(1 mark)**
4. B **(1 mark)**
5. D **(1 mark)**
6. E **(1 mark)**
7. A **(1 mark)**
8. E **(1 mark)**
9. C **(1 mark)**
10. D **(1 mark)**
11. B **(1 mark)**
12. A **(1 mark)**
13. B **(1 mark)**
14. C **(1 mark)**
15. B **(1 mark)**
16. A **(1 mark)**
17. C **(1 mark)**
18. [redacted]
19. A**(1.5 marks)**
20. D **(2 marks)**
21. A **(2 marks)**
22. D **(2 marks)**
23. C **(2 marks)**
24. D **(2 marks)**

Question 2 (20-25 minutes) **(15 marks)**

The XYZ Manufacturing Company has three service departments and two producing departments. They are currently evaluating several methods of allocating the service the service departments' budgeted costs to producing departments. Accordingly, the following information has been prepared for the month of January, 2009:

	Total Costs Service Departments			**Factory Overhead Costs Producing Departments**	
	Utilities	Maintenance	Personnel	Machining	Assembly
Budgeted costs	$800,000	$650,000	$400,000	$1,230,000	$370,000
Kilowatt hours (kwh)	800 kwh	1,200 kwh	500 kwh	33,300 kwh	35,000 kwh
Square meters (sqm)	1,000 sqm	1,000 sqm	1,000 sqm	40,000 sqm	5,000 sqm
Number of employees (ppl)	12 ppl	21 ppl	15 ppl	147 ppl	20 ppl
Machine hours (MH)				500,000 MH	10,000 MH
Direct labor hours (DLH)				250,000 DLH	60,000 DLH

Assume that the cost drivers for each department are as follows:

Utilities Department	Kilowatt (khw)
Maintenance Department	Square meters (sqm)
Personnel Department	Number of employees (ppl)
Machining Department	Machine hours (MH)
Assembly Department	Direct labor hours (DLH)

Required:

a. Assume Utilities is allocated first, then Maintenance, and finally Personnel. Indicate the **proportions** (in **numerical fractions** for example, 3/5, 9/19, 35/100...etc.) in which service departments' costs will be allocated to *all* various departments using the:

1. Direct method
2. Step method **(7.5 marks)**

b. Using the step method determine the factory overhead application rates for the producing departments. **(7.5 marks)**

[redacted]

ANSWER – **Question 2**

a.1 Direct Method

	Service Departments			Producing Departments		
To / From	Utilities	Maintenance	Personnel	Machining	Assembly	
Utilities	-	-	-	333/683	350/683	
Maintenance	-	-	-	8/9	1/9	
Personnel	-	-	-	147/167	20/167	

a.2 Step Method

	Service Departments			Producing Departments		
To / From	Utilities	Maintenance	Personnel	Machining	Assembly	
Utilities	-	12/700	5/700	333/700	350/700	
Maintenance	-	-	1/46	40/46	5/46	
Personnel	-	-	-	147/167	20/167	

(7.5 marks)

b. Step Method

	Utilities	Maintenance	Personnel	Machining	Assembly
Budgeted costs	$800,000	$650,000	$400,000	$1,230,000	$370,000
Allocate Service Department Costs to Production Departments					
First Step					
Utilities %	-	12/700	5/700	333/700	350/700
Amount	(800,000)	**$13,714.29**	**$5,714.29**	**$380,571.42**	**$400,000**
Second Step					
Maintenance %	-	-	1/46	40/46	5/46
Amount		**($663,714.29)**	**$14,428.57**	**$577,142.86**	**$72,142.86**
Third Step					
Personnel %	-	-	-	147/167	20/167
Amount			**($420,142.86)**	**$369,826.35**	**$50,316.51**
Totals Costs		-		**$2,557,540.63**	**$892,459.37**
/ Activity				500,000 MH	60,000 DLH
Rate				$5.115 per MH	$14.874 per DLH

(7.5 marks)

Question 5 (30-35 minutes) **(20 marks)**

Speedo Company manufactures various lines of bicycles. Because of the high volume of each type of product, the company employs a process cost system using the weighted average method to determine unit costs. Bicycle parts are manufactured in the Molding Department and transferred to the Assembly Department where they are partially assembled. After assembly the bicycle is sent to the Packing Department.

The month of January, 2008 cost and production figures for the Assembly Department are:

	Transferred in From Molding Department	**Assembly Material**	**Assembly Conversion Cost**
Costs as of January 1st	$70,000.00	$6,495.00	$11,868.75
Costs added during January	1,130,000.00	96,840.00	236,590.00

The Assembly Department began the month of January, 2008 with 3,000 units in the beginning inventory, 50% complete. It received 45,000 units from the Molding Department, and ended the month of January with 4,000 bicycles, 20% complete. Seats are considered the only Assembly material and are added when bicycles reach 75% stage of completion. Conversion costs are incurred uniformly throughout the process.

Spoiled bicycles are identified at an inspection point when the assembly process is 70% complete. The normal rejection percentage for spoiled bicycles is 5% of the units surviving the inspection. Any spoiled bicycles over and above the 5% quota are considered as abnormal. Total number of bicycles spoiled in January was 4,000. Spoiled units are sold for cash at $5 per unit by the end of the month. Another inspection to detect defective bicycles takes place at 96% stage of completion. Defective units are taken back to the 71% completion stage in the assembly process. Total number of units inspected at 96% completion stage was 41,500. Normal rework is considered 2% of units surviving the inspection.

Required: Provide all necessary schedules to support your computations.

For the month ended January 31st, 2008, determine the cost of bicycles transferred out from the Assembly Department into the Packing Department. **(20 marks)**

ANSWER

Question 5 **(20 marks)**

Total units to account for:		
Beginning inventory	3,000	
Units transferred in during current period	45,000	
Units to account for	48,000	
Accounted for as follows:		
Units completed and transferred out	40,000	
Units spoiled	4,000	(70%)
Units in ending WIP inventory	4,000	(20%)
Units accounted for	48,000	

# of units survived the inspection for spoilage (48,000 – 4,000 – 4,000)	40,000
Normal spoilage percentage	5%
Normal spoiled units	2,000

Abnormal spoilage = 4,000 – 2,000 = 2,000 units .

# of units inspected for rework		41,500
Less the number of physical units	[48,000 – 4,000 -4,000]	(40,000)
Rework "effort" units		1,500
# of units survived the inspection for rework	40,000	
Normal rework percentage	2%	
Normal rework "effort" units	800	

Abnormal rework = 1,500 – 800 = 700 "effort" units

Equivalent units of production:	Transferred In	Material	Conversion
Completed (40,000 X 100% all)	40,000	40,000	40,000
Normal spoilage			
TI (2,000 X 100%)	2,000		
DM (2,000 X 0%)		-0-	
CC (2,000 X 70%)			1,400
Abnormal spoilage			
TI (2,000 X 100%)	2,000		
DM (2,000 X 0%)		-0-	
CC (2,000 X 70%)			1,400
Normal Rework			
TI (800 X 0%)	-0-		
DM (800 X 100%)		800	
CC (800 X 25%)			200
Abnormal Rework			
TI (700 X 0%)	-0-		
DM (700 X 100%)		700	
CC (700 X 25%)			175
Ending WIP			
TI (4,000 X 100%)	4,000		
DM (4,000 X 0%)		-0-	
CC (4,000 X 20%)			800
Total equivalent units	48,000	41,500	43,975

Transferred In	Material	Conversion	Total

Beginning WIP	$70,000.00	$6,495.00	$11,868.75	$88,363.75
Current costs	$1,130,000.00	$96,840.00	$236,590.00	$1,463,430.00
Total	$1,200,000.00	$103,335.00	$248,458.75	$1,551,793.75
Equivalent units	48,000	41,500	43,975	
Cost per equivalent unit	$ 25.00	$ 2.49	$ 5.65	$33.14

Cost of Goods Transferred out from Assembly

Completed (40,000 X 33.14)	$1,325,600
Add Normal Spoilage *	47,910 **(see below)**
Add Normal Rework**	3,122 **(see below)**
Total costs	1,376,632

* Normal Spoilage

TI (2,000X 25)	50,000
CC (1,400 X 5.65)	7,910
Salvage value (2,000 X 5)	(10,000)
Total	47,910

** Normal Rework

DM (800X 2.49)	1,992
CC (200 X 5.65)	1,130
Total	3,122

Question 1 (12 Multiple Choice Questions) (20-25 minutes) **(16 marks)**

Choose the Best answer of the following multiple-choice questions. Write your answers in the ANSWER BOOKLET.

1. The balanced scorecard accounting report can be made more effective by developing it at a detail level so that employees:

A) Can see how it is put together.
B) Appreciate all the effort that goes into its preparation.
C) Respect management for including them in its formulation.
D) Can see how their actions contribute to the success of the firm.
E) Do not feel left out. **(1 mark)**

2. Direct materials and direct labor costs total $40,000, conversion costs total $35,000, and factory overhead costs total $100 per machine hour. If 200 machine hours were used for Job #202, what is the total manufacturing cost for Job #202?
A) $95,000
B) $75,000
C) $65,000
D) $60,000
E) $55,000 **(1 mark)**

3. Which of the following journal entries is correct if scrap is being incurred and sold for all common jobs in the amount of $600?

A)

Cash	$600	
Work-in-Process Inventory		$600

B)

Cash	$600	
Finished Goods Inventory		$600

C)

Cash	$600	
Factory Overhead		$600

D)

Cash	$600	
Work-in-Process Inventory		$200
Finished Goods Inventory		$200
Factory Overhead		$200

E) None of the above. **(1 mark)**

4. The objectives of cost allocation are simply to:

A) Motivate, provide incentive, and determine fair awards.
B) Accurately define, divide and spread direct costs.
C) Value, measure, and interpret cost data.
D) Connect, communicate, and discern information.
E) Define, refine, and re-define indirect costs. **(1 mark)**

5. The Insurance Plus Company has two service departments: actuarial (S1) and premium rating (S2), and two production departments: marketing and sales. The distribution of each service department's efforts to the other departments is shown below:

FROM	TO			
	Actuarial	Premium	Marketing	Sales
S1	0%	50%	30%	20%
S2	30%	0%	40%	30%

The direct operating costs of the departments (including both variable and fixed costs) were as follows:

Actuarial	$50,000
Premium Rating	$40,000
Marketing	$60,000
Sales	$70,000

The total cost accumulated in the sales department using the step method is calculated to be:
[Note: actuarial (S1) is allocated first]

A) $ 70,000.
B) $107,857.
C) $127,857.
D) $137,857.
E) $140,000.

(2 marks)

6. Value Activities can best be defined as:

A) Activities that firms in the industry must perform to improve a product.
B) Activities that firms in the industry must perform in the process of converting raw material to final product, and including customer service.
C) Activities that firms in the industry must perform in the process of closing down a product line, including customer service.
D) Activities that firms in the industry must perform to consider ways of marketing a product.
E) Activities that firms in the industry must perform in the process of considering new products, including customer service.

(1 mark)

7. If a firm decided to reevaluate and reorganize the way it did business, in hopes of creating competitive advantage, by changing or decreasing jobs, the company would be using which of the following strategies?

A) Redistribution.
B) Reanalysis.
C) Reengineering.
D) Reevaluation.
E) None of the above. **(1 mark)**

8. Abnormal spoilage:

A) Is considered part of good production.
B) Arises under efficient operating conditions.
C) Is controllable in the short run.
D) Is an unacceptable unit that should not occur under efficient operating conditions.
E) Is part of inventory product cost. **(1 mark)**

9. L & L, CA, employs two full-time professional CAs and five other accountants. Budgeted direct salary costs include $150,000 for each CA and $40,000 per other accountant. For 2007 year, indirect costs were budgeted at $200,000, but actually amounted to $225,000. Actual salaries were $155,000 for each CA and $45,000 for each accountant. Direct and indirect costs are applied on a labor-hour basis. Total budgeted labor-hours were 5,000. If a client used 500 labor-hours, what are the budgeted direct-cost rate and the budgeted indirect cost rate, respectively?

A) $100; $45.
B) $100; $40.
C) $ 90; $40.
D) $110; $40.
E) $107; $45. **(2 marks)**

10. In a local factory, employees are rewarded for finding new and better ways of changing the way they work. This company is motivating its employees to use what management technique?

A) Benchmarking.
B) Activity-Based Costing.
C) Theory of Constraints.
D) Continuous Improvement.
E) Total Quality Management. **(1 mark)**

Use the following information to answer questions (11 &12)

The Parker Manufacturing Company has two production departments (fabrication and assembly) and three service departments (general factory administration, factory maintenance, and factory cafeteria). The following is a summary of costs and other data for each department prior to allocation of service department costs for the year ended June 30.

			General Factory		
	Fabrication	**Assembly**	**Administration**	**Factory Maintenance**	**Factory Cafeteria**
Direct labor costs	$1,950,000	$2,050,000	$90,000	$82,100	$87,000
Direct materials costs	$3,130,000	$ 950,000	-0-	$65,000	$91,000
Overhead costs	$1,650,000	$1,850,000	$70,000	$56,100	$62,000
Direct labor hours	562,500	437,500	31,000	27,000	42,000
Number of employees	280	200	12	8	20
Square footage occupied	88,000	72,000	1,750	2,000	4,800

The costs of the general factory administration department, factory maintenance department, and factory cafeteria are allocated on the basis of direct labor hours, square footage occupied, and number of employees, respectively.

11. Assume that Parker elects to use the direct method to distribute service department costs. The amount of factory maintenance department costs that would be allocated to the fabrication department would be (Round final calculations to the nearest dollar)

A) $0
B) $111,760
C) $106,091
D) $91,440
E) None of the above. **(2 marks)**

12. Assume that Parker elects to use the direct method to distribute service department costs. The amount of general factory administration department costs that would be allocated to the assembly department would be (Round final calculations to the nearest dollar)

A) $0
B) $63,636
C) $70,000
D) $90,000
E) None of the above. **(2 marks)**

Answer Key

Question 1

1. D **(1 mark)**
2. D **(1 mark)**
3. C **(1 mark)**
4. A **(1 mark)**
5. B **(2marks)**
6. B **(1 mark)**
7. C **(1mark)**
8. D **(1mark)**
9. B **(2marks)**
10. D **(1mark)**
11. B **(2marks)**
12. C **(2marks)**

Question 5 (40-45 minutes) **(25 marks)**

Champion, Inc., began the current period with 3,000 units in work-in-process. These units were 40% complete. Costs attached to beginning work-in-process were $6,000 for materials, $9,000 for labor, and $10,000 for overhead. During the period, work was begun on an additional 8,000 units. Materials are added at the beginning of the process, labor is added when the units are 30% complete, and overhead is incurred uniformly. Units are inspected when they are 60% complete. Rejected units are returned to the 20% complete point for rework. Normal rework is 1% of the units surviving inspection. Units are inspected again when they are 75% complete. Rejected units are thrown away. Normal spoilage is considered to be 2% of the units inspected. There were 11,150 units inspected for rework and 250 units were rejected for spoilage. Spoiled units are sold at two dollars each. Ending work-in-process consists of 1,750 units, 90% complete. Current costs incurred were $16,000 for materials, $24,450 for labor, and $44,112.50 for overhead.

Required

a. Using average process costing determine cost of goods completed, cost of ending work-in-process, loss from abnormal spoilage, loss from abnormal rework.
(20 marks)

b. Prepare the appropriate journal entries to properly account for spoilage, salvage, and transfer of costs to Finished Goods Inventory. **(5 marks)**

Answer **Question 5** **(25 marks)**

Total units to account for:	
Beginning inventory	3,000
Units started during current period	8,000
Units to account for	11,000
Accounted for as follows:	
Units completed	9,000
Units spoiled	250 (75%)
Units in ending WIP inventory	1,750 (90%)
Units accounted for	11,000

# of units inspected for rework	11,150
Less the number of physical units	(11,000)
Rework "effort" units	150
# of units survived the inspection for rework	11,000
Normal rework percentage	1%
Normal rework "effort" units	110

Abnormal rework = 150 – 110 = 40"effort" units

# of units reach inspection for spoilage	11,000
Normal spoilage percentage	2%
Normal spoiled units	220

Abnormal spoilage = 250 – 220 = 30 units

Equivalent units of production:	Material	Labor	Conversion
Completed (9,000 X 100% all)	9,000	9,000	9,000
Normal Rework			
DL (110X 100%)	-0-	110	
OH (110 X 40%)			44
Abnormal Rework			
DL (40X 100%)	-0-	40	
OH (40 X 40%)			16
Normal spoilage #1			
DM & DL (220X 100%)	220	220	
OH (220X75%)			165
Abnormal spoilage			
DM & DL (30X 100%)	30	30	
OH (30X75%)			22.50
Ending WIP			
DM & DL (1,750 X 100%)	1,750	1,750	
OH (1,750 X 90%)			1,575
Total equivalent units	11,000	11,150	10,822.50

Answer Question 5 Cont'd

	Material	Labor	Overhead	Total
Beginning	6,000	9,000	10,000	25,000
Current	16,000	24,450	44,112.5	84,562.50
Total	22,000	33,450	54,112.5	109,562.50
Equivalent units	11,000	11,150	10,822.50	
Cost per equivalent unit	$ 2.00	$ 3.00	$ 5.00	$10.00

b)

Cash (250 X 2)		500	
WIP (220 X 2)			440
Loss from Abnormal Spoilage (30X2)			60
(To record Salvage value)			
Finished Goods (see below)		$91,702.45	
Loss from Abnormal Spoilage	(see below)	264.00	
Loss from Abnormal Rework	(see below)	200.00	
WIP			92,166.45
(To record the transfer of finished goods, loss from AS, and loss from AR)			

ANSWER QUESTION 5 (cont'd)

	Completed	Normal Rework	Abnormal Rework	Normal Spoilage	Abnormal Spoilage	Ending WIP
Completed						
(9,000 X 10)	$90,000					
Normal Rework						
DL (110X3)		330				
OH (44X 5)		220				
Allocate Normal Rework*	450	(550)		11	1.50	87.50
Abnormal Rework						
DL (40X3)			120			
OH (16X 5)			80			
Normal Spoilage						
DM & DL (220 X [2+3])				1,100		
OH (165 X 5)				825		
Less Salvage (220 X2)				(440)		
Allocate Normal spoilage **	1,252.45			(1,496)		243.55
Abnormal Spoilage						
DM & DL (30 X [2+3])					150	
OH (22.50 X 5)					112.50	
Less Salvage (30 X2)					(60.00)	
Ending Work in process						
DM & DL (1,750 X [2 + 3])						8,750
OH (1,575 X53)						7,875
Total	$91,702.45	-0-	$200	-0-	$204	$16,956.05-

*

	Completed	Normal Spoilage	Abnormal Spoilage	Ending Work in process	Total
Physical units	9,000	220	30	1,750	11,000
Percentages to allocate Normal Rework	81.82%	2%	.27%	15.91%	100%

**

	Completed	Ending WIP	Total
Physical units	9,000	1,750	10,750
Percentages to allocate Normal Rework	83.72%	16.28%	100%

Question 4 (30-35 minutes) **(20 marks)**

Rockingham Manufacturing Company builds highly sophisticated engine parts for cars competing in stock racing and drag racing. The company uses a normal costing system that applies factory overhead on the basis of direct labor-hours. For 2004, the company estimated that it would incur $256,000 in factory overhead costs and 16,000 direct labor-hours. The April 1, 2004, balance in inventory accounts follow:

Material Inventory	$ 54,000
Work-in-Process Inventory (Y12)	$ 21,000
Finished Goods Inventory (Z11)	$108,000

Job Y12 is the only job in process on April 1, 2004. The following transactions were recorded for the month of April

(a). Purchased materials on account, $180,000
(b). Issued $182,000 of materials to production, $8,000 of which was for indirect materials. Cost of direct materials issued

Job Y12	$46,000
Job D20	$84,000
Job E33	$44,000

(c). Incurred and paid payroll cost of $40,920. Direct labor cost ($20/hour; total 1,196 hours)

Job Y12	$12,220
Job D20	$ 8,060
Job E33	$ 3,640
Indirect labor	$ 5,000
Selling and administrative salaries	$12,000

(d). Recognize deprecation for the month:

Manufacturing asset	$ 4,400
Selling and administrative asset	$ 3,400

(e). Paid advertising expenses $12,000
(f). Incurred factory utility costs $ 2,600
(g). Incurred other factory overhead costs $3,200
(h). Applied factory overhead to production on the basis of direct labor-hours
(i). Job Y12 had a normal spoilage with the estimated cost of $2,000 that was sold for $500 cash in April attributable to this particular job.
(j). Job D20 had a normal spoilage with the estimated cost of $300 from the general production process failure and abnormal spoilage of $100.
(k). The company incurred scrap specifically due to Job E33 and sold it for $60 cash.
(l). The company sold the scrap common to all jobs for $110 cash in April.
(m). Completed Job Y12 during the month and transferred it to the finished goods' warehouse.
(n). Sold Job Z11 on account for $148,000.
(o). Received $50,000 of collections on account from customers during the month.

Question 4 (continued) **(20 marks)**

Required

a. Prepare the journal entries for the ***selected*** transactions: (i), (j), (k), and (l), indicating amounts for each job separately (i.e., work-in-process-Job Y12, work-in-process-Job D20, or work-in-process-Job E33.) **(5 marks)**

b. Supply all the missing amounts from (A) to (L) below, in order to complete the simple job-cost sheets for the month ended April 30th, 2004. Indicate whether the amounts should be *added (+) or deducted (-).*

Job Cost Sheets for the month ended April. 30th, 2004

	Job Y12	Job D20	Job E33
Beginning work-in-process	$21,000	-0-	-0-
Direct Materials	$46,000	$84,000	$44,000
Direct Labor	$12,220	$8,060	$3,640
Overhead Applied	(A)	(B)	(C)
Normal Spoilage	(D)	(E)	(F)
Abnormal Spoilage	(G)	(H)	(I)
Salvage / Scrap	(J)	(K)	(L)
Total Cost	-?-	-?-	-?-

(6 marks)

c. What was the amount of underapplied or overapplied factory overhead? **(3 marks)**

d. Prepare the appropriate journal entry to close out the factory overhead account at the end of April, 2004. Assume that the amount of overapplied or underapplied factory overhead is considered significant and should be closed at the end of each month. **(3 marks)**

e. Calculate the net income for the month ended April 30th, 2004. **(3 marks)**

ANSWER

Question 4 **(20 marks)**

a.

(i). To record the sale of normal spoilage attributable to Job Y12

Cash	500	
Work-in-process -Job Y12		500

(j). To record the normal and abnormal spoilages incurred in Job D20

Factory Overhead	300	
Loss from Abnormal Spoilage	100	
Work-in-process- Job D20		400

(k). To record the scrap sold attributable to a specific Job E33

Cash	60	
Work-in-process -Job E33		60

(l). To record the scrap sold common to all jobs

Cash	110	
Factory Overhead		110

(5 marks)

b. **Job Cost Sheets**
For the year ended April 30th, 2004

	Job Y12	Job D20	Job E33	Total
Beg WIP	21,000	-0-	-0-	21,000
DM	46,000	84,000	44,000	174,000
DL	12,220	8,060	3,640	23,920
OH Applied *	**(A)**9,776	**(B)**6,448	**(C)**2,912	19,136
Normal Spoilage	**(D)**-0-	**(E)**(300)	**(F)**-0-	(300)
Abnormal Spoilage	**(G)**-0-	**(H)** (100)	**(I)**-0-	(100)
Salvage /Scrap	**(J)**(500)	**(K)**-0-	**(L)**(60)	(560)
Total	88,496	98,108	50,492	237,096

* [12,220/20 X 16**]; [8,060/20 X 16]; and [3640/20 X 16]
** Predetermined OH rate = 256,000 / 16,000 = $16 per DLH

(6 marks)

ANSWER QUESTION 6 (CONT'D)

c.

	Actual OH
Indirect Materials	$8,000
Indirect Labor	5,000.
Depreciation	4,400
Utility	2,600
Other	3,200
Normal Spoilage	300
Scrap	(110)
Total Actual OH	23,390
Less Applied OH	19,136 (from requirement (3))
Under- applied OH	$4,254 **(3 marks)**

d.

	Current Applied OH	**%**		**Under-applied OH**	**Share**
WIP –D20	$6,448	33.696%	X	4,254	1,433.43
WIP-E33	$2,912	15.217%	X	4,254	647.33
FG-Y12	$9,776	51.087%	X	4,254	2,173.24
Total	$19,136	100%			$4,254.00

The Journal entry to close out the factory overhead as follows:

Work-in-process-D20	**1,433.43**	
Work in process-E33	**647.33**	
Finished goods-Y12	**2,173.24**	
Factory overhead		**4,254**

OR

Factory overhead applied	**19,136.00**	
Work-in-process-D20	**1,433.43**	
Work in process-E33	**647.33**	
Finished goods-Y12	**2,173.24**	
Factory overhead		**23,390**

(3 marks)

e.

Sales	148,000
Less CGS	(108,000)
Administrative Salaries	(12,000)
Depreciation	(3,400)
Advertising	(12,000)
Abnormal Loss	(100)
Net Income	$12,500

(3 marks)