Name: KEY B

ACCT 2102 – Prof. J. M. Turner
Exam #2 Spring 2012

INSTRUCTIONS – Please read before you take the exam. Failure to follow instructions will result in the loss of points.

1. This is a closed book and closed notes exam. You must do your own work without assistance from anyone. Giving or receiving assistance from anyone during the exam will result in a grade of zero and reporting to the Office of Student Integrity. To attest to your compliance with this instruction and the Georgia Tech honor system, please sign the honor pledge below before turning in your exam.
2. To treat all students equally, I do not answer questions during an exam. Answer each question based on the information given. If you think there is a typo error, please let me know.
3. You may use only a calculator supplied by me. You may not use your cell phone or personal computer during the exam. All cell phones must be turned off and placed on the top of your desk in plain view at all times during the exam. Use of your cell phone during the exam is considered cheating and a violation of the Honor System.
4. Each multiple-choice question has only one best answer. If you choose more than one answer, it will be considered an incorrect answer. **Enter your answer to the multiple choice questions on the Scantron sheet provided.** What you enter on the Scantron sheet is your answer for grading purposes. Please totally erase changes on the Scantron or get a clean Scantron form and re-enter your answers. Insert your Scantron form inside of this exam when you turn it in.
5. You are required to show your work on the problems. **If you do not show your work, you will not receive full credit even if you have a correct answer.**
6. There are 9 pages in this exam. Points available are as follows:

Terminology matching – 17 @ 2 points each	34
Problems (1)	10
Multiple choice – 17 @ 3 points each	51
Total	95

Grades will be expressed as a percentage of total available points.

Honor Pledge:
On my honor, I pledge that I have neither given nor received any unauthorized help on this exam.

_____
(Signed)

If you do not want your graded exam returned to the grading bins for this class, please sign below. If you do not sign below, your exam will be placed in the bins for this class if you signed a FERPA waiver.

Do not return my graded exam to the bin:_____

34

Matching (2 points each – ~~14~~ total points) Match each of the following terms with the phrase that most closely describes it. Each answer may be used only once. Enter the letter in the space provided; use capital letters.

A. Ability to bear costs approach to allocation
B. Full absorption costing
C. Activity-based costing
D. Activity-based management
E. Cause-and-effect relationship
F. Controllable costs
G. Cost allocation
H. Cost driver
I. Cost objective
J. Cost pool
K. Cost-plus contract
L. Cost structure
M. Equity approach to allocation
N. Lump-sum allocation
O. Relative benefits approach to allocation
P. Responsibility accounting system
Q. Unitized costs
R. Variable costing

B 1. A costing approach in which all manufacturing costs are added to the product.

R 2. A costing approach in which only variable manufacturing costs are product costs, and fixed manufacturing costs are period expenses.

J 3. A grouping of individual costs whose total is allocated using one allocation base

H 4. A measure of the activity that is used to allocate costs

A 5. A method of allocation that assigns more costs to more profitable cost objects

C 6. A recently developed method of cost allocation that uses cost drivers to allocate costs to products

P 7. A system of accounting that traces revenues and costs to organizational units and individuals with related responsibility for generating revenue and controlling costs.

N 8. Allocations of fixed costs in which predetermined amounts are allocated regardless of changes in the level of activity

E 9. An allocation of cost to the cost objective that caused it to be incurred.

M 10. An attempt to allocate costs in a way that is fair to interested parties.

G 11. Assigning indirect costs to cost objectives

F 12. Costs that a manager can influence.

Q 13. Fixed costs stated on a per unit basis

D 14. Has the goal of improving efficiency and effectiveness by analyzing and costing activities

K 15. Price for this includes actual costs plus a fixed amount or percentage

I 16. The object or recipient of the cost allocation

L 17. The relative proportion of fixed versus variable costs that a company incurs

C 1. In using variable costing, how are fixed manufacturing costs classified?

A. As part of cost of goods sold
B. As inventory costs
C. As period costs
D. As product costs

C 2. The following are amounts determined by Image, Inc. for the production of 800 clocks during August:

Sales price	$30 per unit	30
Variable manufacturing costs	$6 per unit	(6)
Fixed manufacturing costs	$4 per unit	
Variable administrative costs	$3 per unit	(3)
Fixed administrative costs	$5 per unit	
		$21 CM per unit
		X 800 # units
		$16,800 Total CM

If 800 clocks are sold during August, how much is total contribution margin?

A. $9,600
B. $16,000
C. $16,800
D. $24,800

B 3. Which of the following is not a reason for a company to use variable costing? In other words, all of the following are reasons to use variable costing except

A. Variable costing eliminates the temptation to overproduce in order to reduce cost per unit.
B. Variable costing is required by generally accepted accounting principles. — False; not required by GAAP
C. Variable costing highlights the fact that all of fixed overhead costs will be incurred regardless of the level of production.
D. Variable costing is useful for decision making.

D 4. Which of the following costs are not considered product costs under variable costing?

A. Variable selling and administrative costs.
B. Fixed selling and administrative costs.
C. Fixed manufacturing overhead.
D. None of the above.

Use the following date for problems 5 and 6.
Ajax Manufacturing has the following cost structures:

Direct material	$10
Direct labor	20
Variable manufacturing overhead	10
Total variable manufacturing costs per unit	$40

Fixed manufacturing overhead per year	$100,000
Fixed selling and administrative expense per year	$200,000

B 5. Referring to the data above, assume that Ajax produces 10,000 items and sells 8,000 items. In this case, the full cost of ending inventory is:

A. ~~$80,000~~ $90,000
(B.) $100,000
C. $140,000
D. $150,000

TOTAL VAR COST = $40 × 10,000 = $400,000
TOTAL FIXED MFG 100,000
Total product cost 500,000
÷ units produced ÷ 10,000
Cost per unit $50
× 2,000
$100,000

C 6. Referring to the data above, assume that Ajax produces 10,000 items and sells 8,000 items. The selling price of Ajax's product is $90 per unit. In this case, the contribution margin on the income statement prepared using variable costing is:

A. $100,000
B. $320,000
(C.) $400,000
D. ~~$500,000~~ 440,000

SP	$ 90
VC	40
Unit CM	50
× Units sold	× 8,000
Total CM	$400,000

D 7. Last month, Garland Industries produced 100,000 units and sold 75,000 of them at a price of $12 per unit. Manufacturing costs consisted of direct materials of $200,000, direct labor of $120,000, variable manufacturing overhead of $60,000 and fixed manufacturing overhead of $150,000. Fixed general and administrative costs totaled $90,000.
What would Garland's net income be for the month using variable costing?

A. $530,000
225,000 B. ~~$420,000~~
C. $412,500
(D.) $375,000

Product cost - DM	$200,000
DL	120,000
VOH	60,000
Total VC	380,000
# units prod.	÷ 100,000
VC / unit	$3.80
SP / unit	12.00
CM / unit	8.20

unit CM	$8.20
# units sold	× 75,000
TOTAL CM	615,000
FOH	(150,000)
Fixed G+A	(90,000)
Income	375,000

C 8. Last month, Garland Industries produced 100,000 units and sold 75,000 of them at a price of $12 per unit. Manufacturing costs consisted of direct materials of $200,000, direct labor of $120,000, variable manufacturing overhead of $60,000 and fixed manufacturing overhead of $150,000. Fixed general and administrative costs totaled $90,000.

What would Garland's net income be for the month using full costing?

A. $530,000
B. $420,000
C. $412,500
D. $262,500

Total product cost:

D. Matl.	$200.000
D Labor	120.000
Var O/H	60.000
Fix O/H	150.000
Total prod cost	$530.000
÷ # units	100.000
FC/unit	$5.30

Sell price/unit	$12.00
FC per unit	5.30
gross profit/unit	6.70
X #units sold	X 75.000
Total gross profit	502.500
Fixed Gen+Admin	90.000
Net income	412,500

A 9. Mortenson Machines announced that production was being reduced because the company had excess inventory. Its first quarter would report a loss because of the use of full costing for financial reporting purposes. Which of the following is correct?

A. With the reduction in production, fixed manufacturing overhead is spread out over fewer units and unit cost increases. With a higher unit cost, cost of goods sold will be high and profit low.
B. With the reduction in production, fixed manufacturing overhead is spread out over more units and unit cost decreases. With a higher unit cost, cost of goods sold will be high and profit low.
C. With the reduction in production, fixed manufacturing overhead is spread out over more units and unit cost decreases. With a lower unit cost, cost of goods sold will be high and profit low.
D. With the reduction in production, fixed manufacturing overhead is spread out over fewer units and unit cost increases. With a higher unit cost, cost of goods sold will be lower and profit higher.

B 10. An important concern in forming a cost pool is to:

A. Limit the number of costs that make up the pool.
B. Ensure that the costs in the pool are homogenous, or similar.
C. Avoid placing similar costs in the same pool.
D. Give back to the Tech community.

D 11. One way to avoid the unfavorable behavioral problems associated with unitized fixed costs is to:

A. Not allocate fixed costs.
B. Combine fixed and variable costs in a single cost pool.
C. Use only volume-based measures as the cost allocation base.
D. Use a lump-sum method of allocating fixed costs.

B 12. Which one of the following costs would most likely be allocated to products by a toy truck manufacturer in order to determine full cost per unit?

A. Costs to advertise toy trucks on television.
B. Production supervisor's salary.
C. Wages of workers that assemble the trucks.
D. Cost of the wheels.

direct costs are traced
indirect costs are allocated

Most likely direct ~~matl~~ labor.

Most likely direct matl.

B 13. Which one of the following is a benefit of ABC for managers?

A. Its use in determining full costs helps with internal decision making.
B. It often leads to cost control improvements.
C. It more expensive that traditional costing systems.
D. All of the above are benefits of ABC for managers.

A 14. It is generally a good idea to allocate _____ rather than _____ service department costs.

A. budgeted, actual
B. variable, actual
C. budgeted, direct
D. uncontrollable, actual

Use the following data for problems 15 and 16.
Olsen Company estimated the following costs and activities for March:

Activity	~~Total cost~~ ESTIMATED	Cost driver & Estimated total units	Allocation rate Per unit
Machine setups	$33,600	400 Setups	$84 per setup
Utilities	$60,000	200,000 usage hours	$0.30 per hour
Materials handling	$84,000	12,500 crates	$6.72 per crate
Direct labor	$35,520		$20 per labor hour
Direct material	$60,000		$1 per pound

O/H TOTAL = 177,600

The following information pertains to the actual production of brackets and hinges during March:

	Brackets	Hinges
Units produced	60,000	40,000
Direct material cost incurred	$30,000	$31,200
Direct labor cost incurred ($20/hour)	$24,000	$12,000
Setups implemented	120	290
Crates handled	6,800	5,200
Utility hours used	80,000	125,000

A 15. How much is the overhead cost per **bracket** if Olsen uses a traditional cost system and applies overhead based on direct labor cost using only one cost pool?

A. $2.00
B. $5.00
C. $1.50
D. $0.73

Total O/H $177,600 / Est DL Cost 35,520 = $5.00 per dl $
x $24,000 Actual dl $
$120,000 Applied o/h
÷ 60,000 # bracket
$2.00 / bracket

C 16. How much is the overhead cost per **bracket** if Olsen uses activity-based costing?

A. $2.42
B. $17.76
C. $1.33
D. $91.02

Setup $84 X 120 = $10,080
Utils $.30 X 80,000 = 24,000
Hand. 6.72 X 6800 = 45,696
79,776
÷ 60,000
$1.3296

C

____17. Martinez, Inc. has 2 departments—sorting and molding. The payroll and IT departments provide services for the production departments and all other service departments. Payroll is allocated based on number of employees and IT is allocated based on number of computer stations. Martinez provided the following information concerning its departments for June:

Department	Cost Incurred	# of employees	Square feet	Computer stations	# of labor hours
Sorting	$58,000	30	3,000	6	20,000
Molding	$84,000	10	4,500	4	10,000
IT	$40,000	15	1,000	12	3,000
Payroll	$34,000	25	1,500	8	7,000

How much service cost will be allocated to the **molding** department using the direct method?

A. $10,270
B. $22,400
C. $24,500
D. ~~$43,700~~ 49,500

	SORT	MOLD	TOTAL	TOTAL COST	COST/UNIT
# STATIONS	6	4	10	$ 40,000	$4,000
# employees	30	10	40	34,000	$ 850

MOLDING - IT - $4000 X 4 = $16,000
Payroll $850 X 10 = 8500
Total Svc Cost $ 24,500

Bonus question (2 points) DO NOT ENTER THE ANSWER TO THE BONUS QUESTION ON THE SCANTRON. ENTER YOUR ANSWER IN THE SPACE PROVIDED BELOW.

____ If you see your professor, Dr. Turner, on campus or in the COM building, the appropriate reaction is to:

A. Act as though you don't see him or don't know him
B. Turn around and walk the other way being careful to avoid eye contact
C. Smile and say hello
D. Offer him an incentive to grade your exam favorably

Note – There is only one correct answer to the bonus question

Problem 1 (10 points) #

Raeon, Inc. produces car radios. The selling price per radio is $900. Costs involved in production are:

Direct material	$100
Direct labor	80
Variable manufacturing overhead	50
Fixed manufacturing overhead per year	250,000

$230 vc/unit

In addition, the company has fixed selling and administrative costs:

Fixed selling costs per year	$175,000
Fixed administrative costs per year	75,000

During the year, Raeon produces 1,000 car radios and sells 800 radios. There was no beginning inventory.

Required:

7 pts. 1. How much is profit or (loss) using variable costing? $36,000

3 pts 2. What is the cost of ending inventory using variable costing? $46,000

10 pts

1.

Sales 800 # @ $ 900 = +1 $720,000

Var. Prod Costs,

DM	800 x $ 100	+1	80,000
DL	800 X $80	+1	64,000
VOH	800 X $50	+1	40,000

184,000

TOTAL CM 536,000

Fixed Costs:

FOH	+1	250,000
Selling	+1	175,000
Admin	+1	75,000

500,000

PROFIT +7 $ 36,000

2. Var prod cost per Unit $230 +2

units X 200 +1

Ending Inventory $46,000 +3