Seat No. _____

Kadi Sarva Vishwa Vidyalaya

MBA – Semester – II – Examination, May 2014

Cost and Management Accounting – CC 201

Date: 08/05/2014 **Total Marks: 40%** **Duration: 2½ Hours**

Instructions:

1 Make assumptions wherever necessary and state it clearly

2 Working notes must form part of your answers

Q-1 (A) "In CVP analysis, gross margin is a less useful concept than contribution margin." Do you agree? 4%

(B) Explain the following terms: 4%

1. Inventoriable cost
2. Sunk cost
3. Period Cost
4. Cost Object

OR

(B) What is Job Costing? Explain the advantages and disadvantages of Job Costing. 4%

Q-2 (A) Apollo Healthcare Center runs three programs (a) alcoholic rehabilitation, (b) drug addict rehabilitation, and (c) after care (counselling and support of patients after release from a mental hospital) 4%

The center's budget for current year follows:

Professional Salaries

4 Physicians, Rs. 600000	Rs. 24,00,000	
18 Psychologists, Rs. 300000	Rs. 54,00,000	
20 Nurses, Rs. 120000	Rs. 24,00,000	Rs. 1,02,00,000
Medical supplies		Rs. 6,00,000
General overhead (administrative salaries, rent, utilities etc.)		Rs. 17,60,000
		1,25,60,000

Amitabh, the director of the Center, is keen on determining the cost of each program. Amitabh complied the following data describing employee allocations to individual programs:

	Alcohol	Drug	Aftercare	Total Employees
Physicians	-	4	-	4
Psychologists	6	4	8	18
Nurses	4	6	10	20

Eight patients are in residence in the alcohol program, each staying about six months. Thus, the clinic provides 40 patient years of service in the alcohol program. Similarly, 100 patients are involved in the drug program for about six months each. Thus the clinic provides 50 patient years of service in the drug program.

Amitabh has recently become aware of activity based costing as a method to refine costing systems. He asks his accountant, Suresh, how he should apply this new technique. Suresh obtains the following information:

1. Consumption of medical supplies depends on the number of patient-years
2. General overhead costs consists of

Rent and clinic maintenance	Rs. 3,60,000
Administrative costs to manage patient charts, food, laundry	Rs. 12,00,000
Laboratory Services	Rs. 2,00,000
Total	Rs. 17,60,000

3. Other information about individual departments

	Alcohol	Drug	Aftercare	Total employees
Square feet of space occupied by each program	9000	9000	12000	30000
Patient years of service	40	50	60	150
Number of laboratory tests	400	1400	700	2500

Required:

1. Select cost allocation bases that you believe are the most appropriate for allocating indirect costs to programs, calculate the indirect cost rates for medical supplies, rent and clinic maintenance; administrative costs for patient charts, food and laundry; and laboratory services.
2. Using an activity based costing approach to cost analysis calculate the cost of each program and the cost per patient year of the alcohol and drug programs.

(B) Why might managers find a flexible – budget analysis more informative than a static budget analysis? 4%

OR

Q-2 (A) "Managers always choose the alternative that maximized operating income or minimizes costs in decision model." Do you agree? Why? 4%

(B) The Hero Honda Co. uses a job-costing system at its Noida plant. The plant has a machining department and an assembly department. Its job-costing system has two direct-cost categories (direct materials and direct manufacturing labor) and two manufacturing overhead cost pools (machining department overhead, allocated to jobs based on actual machine-hours, and the assembly department overhead, allocated to jobs based on actual direct manufacturing labor cost). The year 1 budget for the plant is: 4%

Particulars	Machining department	Assembly department
Manufacturing overhead	Rs. 36,00,000	Rs. 72,00,000
Direct Manufacturing labor cost	Rs. 28,00,000	Rs. 40,00,000
Direct Manufacturing labor hours	2,00,000	4,00,000
Machine Hours	1,00,000	4,00,000

Required:

1. Compute the budgeted manufacturing overhead rate for each year.
2. Calculate the total manufacturing overhead allocated to the job 526, cost record for Job 526 contains the following information:

Particulars	Machining department	Assembly department
Direct materials used	Rs. 90,000	Rs. 1,40,000
Direct Manufacturing labor cost	Rs. 28,000	Rs. 30,000
Direct Manufacturing labor hours	2,000	3,000
Machine Hours	4,000	2,000

Q-3 (A) "Variable costs are always relevant, and fixed costs are always irrelevant." Do you agree? Why? 4%

(B) Kadi Sarva Vishwa Vidyalaya (KSV) has an annual budget of Rs. 1,00,00,000 for athletic scholarships. Each athletic scholarship is for Rs 40,000 per year. Fixed operating costs of the athletic scholarship program are Rs. 12,00,000 and variable operating costs are Rs. 4000 per scholarship offered. 4%

(a) You need to determine the number of athletic scholarships KSV can offer each year and (b) Suppose the total budget for the next year is reduced by 22 per cent. Fixed costs are to remain the same. Calculate the number of athletic scholarships that KSV can offer next year.

OR

Q-3 (A) "Transferred in costs are those costs incurred in the preceding accounting period." Do you agree? Explain. 4%

(B) KidsToy Ltd. produces a toy car, TGC, in batches. After each batch of TGC is run, the molds are cleaned. The labor costs of cleaning the molds can be traced to TGC because TGC can only be produced for a specific mold. The following information pertains to June 2012: 4%

Particulars	Static Budget amounts	Actual amounts
Units of TGC produced and sold	30,000	22,500
Batch Size (units per batch)	250	225
Cleaning labor hours per batch	3	3.5
Cleaning labor cost per hour	Rs. 140	Rs. 125

Required:

a. Calculate the flexible budget variance for total cleaning labor costs in June 2012
b. Calculate the price and efficiency variances for total cleaning labor costs in June 2012. Comment on the results.

Q-4 (A) Discuss various features of Budget. Which things you will take care to make your budget successful. 4%

(B) Abhishek is the managing partner of a business that has just finished building a 60 room motel. Abhishek anticipates that he will rent these rooms for 16,000 nights next year (or 16000 room nights). All rooms are similar and will rent for the same price. Abhishek estimates the following operating costs for the next year: 4%

Variable operating costs — Rs. 30 per room night

Fixed costs:

Salaries and wages	Rs. 17,50,000
Maintenance of building and pool	Rs. 3,70,000
Other operating and administration costs	Rs. 14,00,000
Total fixed costs	Rs. 35,20,000

The capital invested in the motel is Rs. 96,00,000. The partnership's target return on investment is 25%. Abhishek expects demand for rooms to be uniform throughout the year. He plans to price the rooms at full cost plus a markup on full cost to earn the target return on investment.

Required:

1. What price should Abhishek charge for a room night? What is the markup as a percentage of full cost of a room night?
2. Abhishek's market research indicates that if the price of a room night determined in requirement 1 is reduced by 10%, the expected number of room-nights Abhishek could rent would increase by 10%. Should Abhishek reduce prices by 10%? Show your calculations.

OR

Q-4 (A) "The production volume variance should always be written off to COGS." Do you agree? Explain 4%

(B) The Yera glasses sells two brands of wine glasses: Plain and chic. Yera provides the following information for sales in the month of June: 4%

Static Budget and total contribution margin	Rs. 56,000
Budgeted units to be sold of all glasses in June	2000 Units
Budgeted contribution margin per unit of Plain	Rs. 20 per unit
Budgeted contribution margin per unit of Chic	Rs. 60 per unit
Total Sales quantity variance	Rs. 14,000 U
Actual sales mix percentage of Plain	60 Per Cent

All variances are to be computed in contribution margin terms.

Required

1. Calculate the sales quantity variances for each product for June.
2. Calculate the individual product and total sales mix variances for June. Calculate the individual product and total sales volume variances for June.

Q-5 The Lakshmi Corporation manufactures and sells two products, Royal Bucket and Royal Drum. In July 2012, Lakshmi's Budget Department gathered the following data to prepare budget for 2013: 8%

2013-14 Projected Sales

Product	Units	Price
Royal Bucket	60,000	Rs. 165
Royal Drum	40,000	Rs. 250

2013-14 Inventories (in Units)

Product	Expected Target April 1, 2013	March 31, 2014
Royal Bucket	20,000	25,000
Royal Drum	8,000	9,000

The following direct materials are used in the two products:

Direct Materials	Unit	Amount used per unit: Royal Bucket	Royal Drum
A	Kg	4	5
B	Kg	2	3
C	Kg	0	1

Projected data for 2013-14 with respect to direct materials are as follows:

Direct Materials	Anticipated Purchase Price	Expected Inventories April 1, 2013	Target Inventories March 31, 2014
A	Rs. 12	32,000 kg	36,000 kg
B	Rs. 5	29,000 kg	32,000 kg
C	Rs. 3	6,000 units	7,000 units

Projected direct manufacturing labor requirements and rates for 2013-14 are as follows:

Product	Hours per Unit	Rate per hour
Royal Bucket	2	Rs. 12
Royal Drum	3	Rs. 16

Manufacturing overhead is allocated at the rate of Rs. 20 per direct manufacturing labor hour. Based on the preceding projections and budget requirements for Royal Bucket and Royal Drum, prepare the following budgets for 2013-14:

1. Revenues budget (in rupees)
2. Production budget (in units)
3. Direct materials purchases budget (in rupees)
4. Direct manufacturing labor budget (in rupees)
5. Budgeted finished goods inventory at March 31, 2013-14 (in rupees)

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Seat No. _____ Enrollment No. _____

KADI SARVA VISHWAVIDHYALAYA

MBA Semester-II End-Term Examination, May 2015

Cost and Management Accounting (CC201)

Date: 01/05/2015 **Time: 2Hrs 30 Mins** **Total Marks: 40%**

Instructions:

1. Make assumptions wherever necessary and state it clearly
2. Working notes must form part of your answers.

Q.1 a) ABC Co. Ltd is engaged in the manufacture if product "P". its record reveal the following data for 31/03/2010:
Direct Wages: Rs.20,000
Factory overhead: 125% of Direct Wages

Particulars	31-03-2009 Rs.	31-03-2010 Rs.
Raw Materials	10,000	12,000
Work-in-progress	15,000	17,000
Finished goods	30,000	25,000
Administration Overhead		5,000
Purchases		70,000
Selling Overhead		7,000
Sales for the year		1,50,000

Prepare a cost statement. 4%

b) Distinguish Between:
   i. Product costs & period costs
   ii. Incremental costs and marginal costs. 4%

OR

b) Explain the terms:
   i. Cost unit
   ii. Cost driver
   iii. Prime cost
   iv. Profit center 4%

Q.2 a) Tata Power produces the same power take off units in two plants, a new plant in Orissa and an older plant in Delhi. The Tata Power is expected to produce and sell 1,92,000 power takeoff units during the coming year. The following data are available for the two plants.

Particulars	Orissa	Delhi
Selling price	Rs.15,000	Rs.15,000
Variable manufacturing cost per unit	Rs.7,200	Rs.8,800
Fixed manufacturing	3,000	1,500

4%

cost per unit				
Variable marketing and distribution cost per unit	1,400		1,400	
Fixed marketing and distribution cost per unit	1,900		1,450	
Total cost per unit		13,500		13,150
Operating income per unit		1,500		1,850
Production rate per day	400 units		320 units	

All fixed costs per unit are calculated based on normal year consisting of 240 working days: When the number of working days exceeds 240, variable manufacturing costs increase by Rs.300 per unit in Orissa .and Rs. 800 per unit in Delhi. Capacity for each plant is 300 working days per year.

Wishing to take advantage of the higher operating income per unit at Delhi, company's manager has decided to manufacture 96,000 units at each plant. This production plan results in Delhi operating at capacity (320 units per day X 300 days) and Orissa operating at its normal volume (400 units per day X 240 days).

You are required to::

i. Calculate the breakeven point in units for the Orissa and Delhi plants.
ii. Calculate the operating income that would result from the production manager's plan to produce 96,000 units at each plant.
iii. Determine how the production of the 1,92,000 units should be allocated between Orissa and Delhi plants to maximize operating income for Tata Power. Show your calculations.

b) "In CVP Analysis, gross margin is a less-useful concept than contribution margin?" do you agree? 4%

OR

a) "There is no such thing as a fixed cost. All costs can be unfixed given sufficient time." Do you agree? What is the implication of your answer for CVP analysis? 4%

b) Raymond Ltd. worked on only two jobs during May. Information on the jobs is given below:

Particulars	**Job M1**	**Job M2**
Direct materials	Rs. 75,000	Rs. 50,000
Direct manufacturing labor	2,70,000	2,10,000
Direct manufacturing labor hours	6,000	5,000

Manufacturing overhead costs are allocated at the budgeted rate of Rs.30 per direct manufacturing labor-hour. Job M1 was completed in May.

You are required to:

i. Compute the total cost fo Job M1.
ii. Calculate per unit cost for Job M1 assuming it has 15,000 units.
iii. Prepare the journal entry transferring Job M1 to Finished goods.
iv. Determine the ending balance in the WIP account. 4%

Q.3 a) Define cost pool, cost tracing, cost allocation and cost allocation base. 4%

b) Amul decides to apply ABC analysis to three product lines – Ice creams, MilkShakes & Ice0creams and Food Products. It identifies four activities and activity-cost rates for each activity as:

Ordering	Rs.1,000 per purchase order
Delivery & Receipt of Merchandise	Rs.800 per delivery
Shelf-stocking	Rs.200 per hour
Customer support and assistance	Rs.2 per item sold

The revenues, Cost of Goods sold)COGs), store support costs, and activity area usage of the three product lines are:

Particulars	**Ice-Creams**	**MilkShakes & IceCreams**	**Food Products**
Financial Data:			
Revenues	Rs5,70,000	Rs.6,30,000	Rs.5,20,000
COGs	3,80,000	4,70,000	3,50,000
Store support	1,14,000	1,41,000	1,05,000
Activity-area usage (cost-allocation base)			
Ordering (purchase orders)	30	25	13
Delivery (deliveries)	98	36	28
Shelf-stocking (hours)	183	166	24
Customer support (items sold)	15,500	20,500	7,900

Under the previous costing system, Amul allocated support costs to products at the rate of 30% of COGs.

You are required to:

i. Use the previous costing system to prepare a product-line profitability report for Amul.
ii. Use the ABC system to prepare a product-line profitability report for Amul.
iii. What new insights does the ABC system in requirement ii provide to Amul's manager? 4%

OR

a) Outline the steps in preparing an operating budget. 4%

b) Bridgestone Ltd. manufactures tires. For August 2007, it budgeted to manufacture and sell 3,000 tires at a variable cost of Rs.740 per tire and total fixed costs for Rs.5,40,000. The budgeted selling price was Rs.1,100 per tire. Actual results I August 2007 were 2,800 tires manufactured and sold at a selling price of Rs.1,120 per tire. The actual total variable costs were Rs.22,96,000, and the actual total fixed costs were Rs.5,00,000.

You are required to:

i. Prepare a report that uses a flexible budget and a static budget.
ii. Comment in the results in requirement i. 4%

Q.4 a) Differentiate between Absorption Costing & Marginal Costing 4%

b) From the following data available in the books of a manufacturing concern, work out the fixes overhead variance analyzed into various heads:

Budgeted output for the year	2,40,000 units
Budgeted fixed overheads for the year	Rs.4,80,000
Standard output per hour	100 units
Actual output for the month	17,000 units
Actual fixed overhead for the month	Rs.48,000

The compay follows a budget year of 50 weeks with 48 hours per week. The month consists of 4 working week. Due to idle time, two hours are lost every week.
Due to erratic supply of materials the company had to curtail its manufacturing operations to 5 days a week instead of 6.

4%

OR

a) A group of workers usually consists of 10 men, 5 women, and 5 boys in a factory. They are paid at standard hourly rates of Rs.125, Rs80 and Rs.70 respectively. In a normal working week of 40 hours the group is expected to produce 1,000 units of output.
In a certain week, the group consisted of 13 men, 4 women, and 3 boys. Actual wages were paid at the rates of Rs.120, Rs.85 and Rs65 respectively. Two hours per week were lost due to abnormal idle time and 960 units of output were produced. Calculate; labor cost variance, labor rate variance, labor efficiency variance, labor idle time variance labor mix variance and labor yield variance. 4%

b) The Honda Co. in India has a division that manufactures two-wheel motorcycles. Its budgeted sales for Model G in 2007 are 80,00,000 units. Honda's target ending inventory is 10,00,000 units, and its beginning inventory is 12,00,000 units. The company's budgeted selling price to its distributors and dealers is Rs.40,000 per motorcycle.
Honda buys all its wheels from an outside supplier. No defective wheels are accepted. Honda's needs for extra wheels for replacement parts are ordered by a separate division of the company. The company's target ending inventory is 3,00,000 wheels, and its beginning inventory is 2,00,000 wheels. The budgeted purchase price is Rs.1,600 per wheel.
You are required to:

i. Compute the budgeted revenues in rupees.
ii. Compute the number of motorcycles to be produced.
iii. Compute the budgeted purchases of wheels in units and in rupees 4%

Q.5 From the following information for the month of October 2006, prepare Process III Account, statement of Equivalent Production, statement of cost, and statement of Evaluation:

Opening WIP in Process III	1,800 units at Rs. 27000
Transfer from Process I	47,700 units at Rs.5,36,625
Transferred to warehouse	43,200 units
Closing WIP of Process III	4,500 units
Units scrapped	1,800 units
Direct Materials added in	Rs.1,77,840

8%

Process III

Direct Wages	Rs.87,840
Production Overheads	Rs. 43,920

Degree of Completion:

	Opening Stock	Closing Stock	Scrap
Materials	80%	70%	100%
Labor	60^	50%	70%
Overheads	60%	50%	70%

The normal loss in the process was 5% of the production and scrap was sold @6.75 per unit.

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