No. of Pages - 09
No of Questions - 04

SCHOOL OF ACCOUNTING AND BUSINESS
BSc. (APPLIED ACCOUNTING) GENERAL / SPECIAL DEGREE PROGRAMME

YEAR I SEMESTER II (Intake IV – Group A)

END SEMESTER EXAMINATION – JANUARY 2016

AFM 10430 Intermediate Management Accounting

Date	:	22nd January 2016
Time	:	9.00 a.m. – 12.00 p.m.
Duration	:	Three (03) hours

Instructions to Candidates:

- Answer **ALL** questions.
- The total marks for the paper is 100.
- The marks for each question are shown in brackets.
- Formula Sheet is provided.
- Use of scientific calculator is allowed.
- Answers should be written neatly and legibly.

Question No. 01

i. Nimathi's Cafe bakes a special bun that it sells to local restaurant and grocery stores in the Colombo area. The average cost to bake this special bun are Rs. 55 for 500 and Rs 50 for 600.

Required: If the total cost function for bun is linear, what will be the average cost to bake 560 buns?

(05 Marks)

ii. Amal and Nimal work for a landscaping company in Kandy. Their principal job is to lay railroad ties to lines the sidewalks around apartment complexes and to install flower boxes. The first time Amal and Nimal undertook one of these projects they spent 17 hours. Their goal, by the end of the year was able to finish an apartment complex in 8 hours, one working day. They performed eight of these jobs and had an 80 percent learning curve. Assume that all apartment complexes are approximately the same size.

Required: Did Amal and Nimal reach their goal? If not, what would the learning rate to accomplish their goal?

(05 Marks)

iii. Galle Fashion manufactures special grade hats. On July 1, 2015, the company purchased a new machine to be used in producing various established product lines. Production efficiency on the new machine increases with the experience of the workforce. It has been shown that as the cumulative output on the new machine increases, average labour time per unit decreases. As cumulative output this above 1000 units, the average labor cost per unit declines by 20 percent. Production varies a little from month to month averages 800 hats per month.

They have developed a new men's hat, the 'BOSS', to be produced on the new machine. One hundred BOSS hats can be produced during a period of 10 labour-hours. All other direct costs to produce a BOSS hat are Rs. 30, excluding direct labor cost. Direct labour cost per hour is

Rs. 50. Fixed costs per month are Rs. 60,000 and they have the capacity to produced 5,000 BOSS hats per month.

Required:

a. Galle Fashion wishes to set the selling price for a BOSS hat at 150 percent of the production cost. At a production level of 1,000 units, how much the selling price be?

b. The company has received an order for 3,000 BOSS hats from Sumith Traders offering Rs. 80 for each hat. Should the company accept this order? and produce the extra 3,000 BOSS hats? Justify your decision with relevant calculations.

(15 Marks)

(Total 25 Marks)

<u>Question No. 02</u>

i. Ampara Machinery Company used 3,000 kgs of aluminum and 4,500 labour hours in the month of September in order to manufacture 1,000 units of their products. The company purchased aluminum at Rs.350 per kg. On September 1, the firm had 100 kgs of aluminum in hand and 150 kgs at the end of the month. Price of aluminum was Rs 330 per kg and direct labour cost Rs 50 per hour. The firm spent 4,000 direct labor hours in September and the average wage during the month was Rs. 48 per hour. Standard rate of consumption of materials per unit is 3kgs.

Required:

a. Price and usage variances for aluminum.
b. Direct labour rate and efficiency variances

(05 Marks)

ii. Rex Company's direct materials costs for the month of December are given below.

• Increase in stock of direct material	2,000 Kgs
• Direct material used	60,000 Kgs
• Cost of direct material purchased	Rs. 220,000
• Direct material usage variance-unfavorable	Rs. 24,000
• Standard quantity of direct material allowed for production in December	54,000 Kgs

Required:

a. Standard cost per kg of direct material.

b. Total purchases (in kg) of direct materials during the period.

(05 Marks)

iii. Moratuwa Traders manufactures wooden household items. Ravi, Corporate controller, plans to introduce a standards costing system. He has information from several co-workers that it will help him to develop standards for their products.

One product is a wooden cutting board. Each cutting board requires 1.25 board feet of timber and 12 minutes of direct labor time to prepare and cut the timber. The cutting boards are inspected after they are cut. As they are made of a natural material that have imperfections an average one board is rejected for every five boards accepted. Four rubber pads are attached to the corners of each good cutting board. A total of 15 minutes of direct labor time is required to for this and finish each cutting board. The timber for the cutting boards costs Rs. 3 per board foot, and each pad costs 5 cents. Direct labor is paid at the rate of Rs.8 per hour.

Required:

a. Develop the standard cost for the direct cost components of a cutting board. For each direct cost component, the standard cost should indicate the following:

   1. Standard quantity
   2. Standard rate
   3. Standard cost per unit
   4. Identify the advantages of implementing a standard costing system

b. Explain the roles of the following in developing standards:

   1. Purchasing manager
   2. Industrial engineer
   3. Cost accountant

(15 Marks)

(Total 25 Marks)

<u>Question No. 03</u>

i. "The Net Present Value (NPV) method weighs early receipts of cash much more heavily than late reinvestment decisions." Do you agree?

(05 Marks)

ii. A firm alters its desired rate of return from year to year or from project to project. What underlying factors may have prompted a firm to change its desired rate of return for a capital investment?

(05 Marks)

iii. High-Tec Corporation has a seven-year contract with Magi Company to supply 10,000 units of "G" at Rs.5 per unit. Increase in material and other cost since signing the contract two years ago make this product a cash drain to High-Tec. As the manager of the subsidiary that manufactures and sells "G", you have discovered that a new machine which has a higher productivity. The following is a summary of pertinent information;

	Machine in use	**New machine**
Capacity	10,000 units/year	18,000 units/year
Materials	Rs.4 per unit	Rs.3 per unit
Labor and other variable costs	Rs.1 per unit	Rs.0.20 per unit
Maintenances costs	Rs.1 per unit	Rs.0.10 per unit

The current machine can be sold for Rs.10,000 at present. Today book value of old machine is Rs. 50,000. The new machine costs Rs.100,000 will be depreciated over a five-year life. The company's cost of capital is 8 percent. If the company decides to keep the old machine, which is fully depreciated on a straight-line basis with no salvage value. The firm expects to continue to pay approximately 20 percent for income taxes in the foreseeable future.

Required following on **the new machine:**

a. The effect on the cash flow
b. The payback period
c. The net present value
d. The internal rate of return
e. Advice the company

(15 Marks)

(Total 25 Marks)

Question No. 04

i. Jaffna Manufacturing Ltd. currently uses the company's budget only as a planning tool. Management has decided that it would be beneficial to use the budget for control purposes as well.

Required:

Describe how the management accountant should set about in introducing budgeting plan and accounting system in the company?

(05 Marks)

ii. Amal, Purchasing Manager of Kin Manufacturing, a small manufacturer of specialty tools, was frustrated because his efforts to reduce the use of expensive overnight shipping appeared to be futile. Rush orders, last-minute changes, and other operating emergencies seemed to be the firm's way of life. Although he vowed to keep such contingencies to a minimum, overnight shipping shows no sign of important after 6 months

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At a recent convention, several suppliers indicated that Kin Manufacturing rarely takes advantage of the discount terms. He worked so hard for them to grant and he was expecting better yielded an annual return of at least 30 percent.

Tony, the firm's CEO, recently praised Amal for his performance for the last 6 months and gave him a generous raise. Still, he feels frustrated and unfulfilled.

Required:

What could Amal do to overcome his frustration?

(05 Marks)

iii. Following information is obtained from the records of Matara Traders.

	Sales Rs.	**Purchases Rs.**	**Wages Rs.**	**Operating Expenses Rs.**
November - 2015	150,000	50,000	4,000	6,000
December - 2015	200,000	60,000	7,000	7,000
January - 2016	220,000	70,000	9,000	7,500
February - 2016	25,000	65,000	10,000	8,000
March - 2016	300,000	55,000	12,000	9,000

Note:

- 40% of sales is on cash and the balance on credit basis. Debtors settle their invoices: 60% in one months' time and 30% within two months. Balance cannot be collected.
- Gross profit ratio of the company is 20%
- Matara Traders are permitted to enjoy a credit period of month who setting due to suppliers.
- Wages are paid on the same month it's occurred. Operating expenses are settled in the month following which is occurred. Depreciation Rs. 2,000 per month is included in the operating expenses.
- Tax liability Rs. 10,000 is to be paid in March 2016.

- Matara Traders expects to have Rs. 25,000 cash in hand on 1st January, 2016.

Required:

a. Cash Budget for the months, January, February, March in 2016 in columnar form

b. Budgeted Income Statement for the first quarter, 2016

(15 Marks)

(Total 25 Marks)

Formula Sheet

The following variances are reported for both variable and absorption costing systems:

Materials and labour

1	Material price variance	= (standard price per unit of material – actual price) × quantity of materials purchased
2	Material usage variance	= (standard quantity of materials for actual production – actual quantity used) × standard price per unit
3	Total materials cost variance	= (actual production × standard material cost per unit of production) – actual materials cost
4	Wage rate variance	= (standard wage rate per hour – actual wage rate) × actual labour hours worked
5	Labour efficiency variance	= (standard quantity of labour hours for actual production – actual labour hours) × standard wage rate
6	Total labour cost variance	= (actual production × standard labour cost per unit of production) – actual labour cost

Fixed production overhead

7	Fixed overhead expenditure	= budgeted fixed overheads – actual fixed overheads

Variable production overhead

8	Variable overhead expenditure variance	= (budgeted variable overheads for actual input volume – actual variable overhead cost)
9	Variable overhead efficiency variance	= (standard quantity of input hours for actual production – actual input hours) × variable overhead rate
10	Total variable overhead variance	= (actual production × standard variable overhead rate per unit) – actual variable overhead cost

Sales margins

11	Sales margin price variance	= (actual unit contribution margin* – standard unit contribution margin) × actual sales volume

(*Contribution margins are used with a variable standard costing system whereas profit margins are used with an absorption costing system. With both systems, actual margins are calculated by deducting *standard* costs from actual selling price.)

12	Sales margin	= (actual sales volume – budgeted sales volume) ×
14	Fixed overhead volume variance	= (actual production – budgeted production) × standard fixed overhead rate
15	Volume efficiency variance	= (standard quantity of input hours for actual production – actual input hours) × standard fixed overhead rate
16	Volume capacity variance	= (actual hours of input – budgeted hours of input) × standard fixed overhead rate
17	Total fixed overhead variance	= (actual production × standard fixed overhead rate per unit) – actual fixed overhead cost