

ZIMBABWE EZEKIEL GUTI UNIVERSITY



DEPARTMENT OF ACCOUNTING AND FINANCE

B. COM ACCOUNTING

COURSE: COST AND MANAGEMENT ACCOUNTING

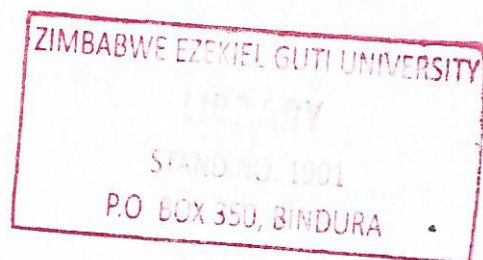
COURSE CODE: CAC205

DURATION: 3 HOURS

DATE 20 JUNE 2017

INSTRUCTIONS TO CANDIDATES

1. No cell phones are allowed in the examination venue.
2. Use of silent, non-programmable calculators is allowed.
3. Answer all questions.
4. Begin each question on a new page.
5. The number of marks for each question or part question is shown in brackets.



Question One

Domestic political trouble in the country of an overseas supplier is causing concern in your company because it is not known when further supplies of raw material 'x' will be received. The current stock held of this particular raw material is 17,000 kilograms, which cost \$136,000. Based on raw material 'x', your company makes five different products and the expected demand for each of these, for the next three months, is given below together with other relevant information:

Product code	Kilogram of raw material 'x' per unit of finished product	Direct labor hours per unit of finished product	Selling price per unit	Expected demand over three months
	Kg	Hours	\$	Units
701	0.7	1.0	26	8,000
702	0.5	0.8	28	7,200
821	1.4	1.5	34	9,000
822	1.3	1.1	38	12,000
931	1.5	1.4	40	10,000

The direct wages rate per hour is \$5 and production overhead is based on direct wages cost - the variable overhead absorption rate being 40% and the fixed overhead absorption rate being 60%.

Variable selling costs, including sales commission are 15% of selling price.

Budgeted fixed selling and administration costs are \$300,000 per annum.

Assume that the fixed production overhead incurred will equal the absorbed figure.

Required

- Show what quantity of the raw material on hand ought to be allocated to which products in order to maximize profits for the forthcoming three months. (13 marks)
- Present a brief statement showing contribution and profit for the forthcoming three months, if your suggestion in a. above is adopted. (6 marks)
- Comment briefly on the analysis you used to aid the decision-making process in a. above

and give three other examples of business problems where this type of business can be useful.

(6 marks)

[Total: 25 Marks]

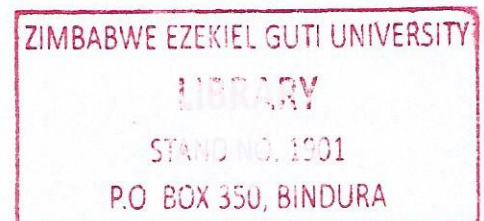
Question Two

A company is to carry out a major modernization of its factory commencing in two weeks' time. During the modernization, which is expected to take four weeks to complete, no production of the company's single product will be possible.

The following additional information is available:

- i. *Sales/Debtors*: Demand for the product at \$100 per unit is expected to continue at 800 units per week, the level of sales achieved for the last four weeks, for one further week. It is then expected to reduce to 700 units per week for three weeks, before rising to a level of 900 units per week where it is expected to remain for several weeks.
All sales are on credit, 50% being received in cash in the week following the week of sale and 50% in the week after that.
- ii. *Production/Finished goods stock*: Production will be at a level of 1,200 units per week for the next two weeks. Finished goods stock is 2,800 units at the beginning of week 1.
- iii. *Raw material stock*: Raw material stock is \$36,000 at the beginning of week 1. This will be increased by the end of week 1 to \$40,000 and reduced to \$10,000 by the end of week 2.
- iv. *Costs*:

	\$ Per unit
Variable:	
Raw material	35
Direct labor	20
Overhead	10
Fixed:	
Overhead	25



Fixed overheads have been apportioned to units on the basis of the normal output level of 800 units per week and include depreciation of \$4,000 per week.

In addition to the above unit costs, overtime premiums of \$5,000 per week will be incurred in weeks 1 and 2. During the modernization variable costs will be avoided, apart from direct labor, which will be incurred at the level equivalent to 800 units production per week. Outlays on fixed overheads will be reduced by \$4,000 per week.

- v. *Payments:* Creditors for raw materials, which stand at \$27,000 at the beginning of week 1, are paid in the week following purchase. All other payments are made in the week in which the liability is incurred.
- vi. *Liquidity:* The Company has a bank overdraft balance of \$39,000 at the beginning of week 1 and an overdraft limit of \$50,000.

The company is anxious to establish the liquidity situation over the modernization period, excluding the requirements for finance for the modernization itself.

Required

- a. Prepare a weekly cash budget covering the six-week period up to the planned completion of the modernization. (15 marks)
- b. Comment briefly upon any matters concerning the liquidity situation, which you feel, should be drawn to the attention of management. (10 marks)

[Total: 25 Marks]

Question Three

Shown below is the standard prime cost of a tube of industrial adhesive, which is the only product, manufactured in one department of Gum pic.

Industrial adhesive		
	\$ Per tube	\$ Per tube
Materials: Powder	1.50	
Chemicals	0.6	
Tube	0.3	2.40
Tube Labor - Mixing and pouring		1.80
Total standard prime cost		4.20

The standard material allowance for each tube of adhesive is ^{1/4} ~~2 1/2~~ kg of powder, ^{1/4} litre of chemical and one tube. The standard wage rate for mixing and pouring is \$4.50 per hour.

During the previous month 4,500 tubes of adhesive were produced, there were no work in progress stocks at the beginning or end of the month, and the receipts and issues of materials during the month are shown below.

	Powder	Chemicals	Tubes
Opening stock	1,500 kg	200 litres	100 tubes
Purchases	10,000 kg @ 70c per kg	600 litres @ 2.30 per litre 600 litres @ 2.50 / litre	200 tubes @ 40c each 5000 tubes @ 30c each
Issues	9,800 kg	1,050 litres	4,520 tubes

The above materials are used exclusively in the production of the adhesive and it is the policy of the company to calculate any price variance when the materials are purchased.

The direct employees operating the mixing and pouring plant worked a total of 2,050 hours during the previous month and earned gross wages of \$8,910.

Required

- a. Calculate for the previous month the following variances from standard cost:
 - i. Materials price variance, analyzed, as you consider appropriate. (4 marks)
 - ii. Materials usage variance, analyzed, as you consider appropriate. (4 marks)
 - iii. Direct labor efficiency variance. (4 marks)
 - iv. Direct wages rate variance. (3 marks)
- b. Discuss the possible causes of the material variances and the direct labor efficiency variance. (10 marks)

[Total: 25 Marks]



Question Four

'Marginal costing makes use of various tools in aiding decision making and amongst these is the Cost Volume Profit (CVP) analysis. CVP simplifies the real-world conditions that a firm will face. Like most models, which are abstractions from reality, CVP analysis is subject to a number of underlying assumptions and limitations, nevertheless, it is a powerful tool for decision-making.'

Required

- a. With the aid of a diagram, clearly outline the concept of CVP. (10marks)
- b. State and explain the assumptions underlying CVP analysis. (6 marks)
- c. Outline the various uses of CVP analysis. (9 marks)

[Total: 25 Marks]

End of paper