

University of Eswatini
Department of Accounting
Main Exam Paper - Semester - I

Programme of Study : Bachelor of Commerce
Year of Study : Year Four / Level Five
Title of Paper : Advanced Management Accounting I
Course Code : ACF413/AC424
Time Allowed : 3 Hours.

- Instructions:
1. Total number of questions on this paper is four (4).
 2. Answer all the questions.
 3. The marks awarded for a question / part is indicated at the end of each question / part of question.
 4. Where applicable, submit all workings and calculations on the answer sheet alongside the case.
 5. Calculations are to be made to two decimal places of accuracy unless otherwise instructed.

Note: You are reminded that in assessing your work, account will be taken of accuracy of the language and the general quality of expression, together with the layout and presentation of your final answer.

Special requirement : Calculator

This paper is not to be opened until permission has been granted by the invigilator.

QUESTION 1:

Clearit Inc. produces a variety of cleaning compounds and solutions for both industrial and household use while most of the products are processed independently, a few are related, such as the company's Grit 337 and its star copper polish.

Grit 337 is a coarse cleaning powder with many industrial uses. It costs E2.60 a kilo to make, and it has a selling price of E3.00 a kilo. A small portion of the annual production of Grit 337 is retained in the factory for further processing. It is combined with several other ingredients to form a paste that is marketed as star copper polish. The star copper polish sells for E5.00 per jar. This further processing requires a quarter kilo of Grit 337 per jar of star copper polish. The additional direct costs involved in the processing of a jar of star copper polish are:

Other ingredients	E0.85
Direct labour	2.00
Total direct cost	E2.85

Overhead costs associated with the processing of the star copper polish are:

Variable manufacturing overhead cost	25% of direct labour cost
Fixed manufacturing overhead cost (per month):	
Production supervisor	E1,000
Depreciation of mixing equipment	1,400

The production supervisor has no duties other than to oversee the production of the star copper polish. The mixing equipment is special purpose equipment acquired specifically to produce the copper polish. It has only negligible resale value.

Direct labour is a variable cost at Clearit Inc. Advertising costs for the star copper polish total E2,000 per month. Variable selling costs associated with the star copper polish are 6.0% of sales.

Due to a recent decline in the demand for star copper polish the company is wondering whether its continued production is advisable. The sales manager feels that it would be more profitable to just sell all of the Grit 337 as a cleaning powder.

Required:

- i) What is the incremental contribution margin per jar from further processing of Grit 337 into star copper polish? **(12 marks)**
 - ii) What is the minimum number of jars of star copper polish that must be sold each month to justify the continued processing of Grit 337 into star copper polish? **(13 marks)**
- Show all computations in good form **Total (25 marks)**

QUESTION 2:

Swazi Chemicals Ltd. produces various chemical compounds for industrial use. One compound called A, is prepared by means of an elaborate drilling process. The company has developed standard costs for one unit of chemical compound A, as follows:

	Standard quantity	Standard price	Standard cost
Direct materials	2.6 grams	E200.00 per gram	E520.00
Direct labour	1.5 hours	125.00 per hour	187.50
Variable manufacturing overhead	1.5 hours	35.00 per hour	52.50
			E760.00

During November, the following activity was recorded by the company relative to production of chemical compound A.

1. Materials purchased, 12,000 grams at a cost of E2,200,000
2. There were no beginning inventories of materials on hand to start the month. At the end of the month 2,000 grams of material remained in the warehouse unused.
3. The company employs 40 lab technicians to work on the production of compound A. During November, each worked an average of 160 hours at an average rate of E120 per hour.
4. Variable manufacturing overhead is assigned to compound A on the basis of direct labour hours. Variable manufacturing overhead costs during November totalled E182,000.
5. During November 3,500 units of compound A were produced. The company's management is anxious to determine the efficiency of the activities surrounding the production of compound A.

Required:

- i) For materials used in the production of Chemical compound A:
 - a) Compute the price and quantity variances (10 marks)
 - b) The materials were purchased from a new supplier who is anxious to enter into a long-term purchase contract. Would you recommend that the company sign the contract? Explain. (2 marks)
- ii) For direct labour employed in the production of Chemical compound A:
 - a) Compute the rate and efficiency variance (10 marks)
 - b) In the past, the 40 technicians employed in the production of Chemical compound A consisted of 25 senior technicians and 15 assistants. During November, the company experimented with only 15 senior technicians and 25 assistants in order to reduce costs. Would you recommend that the new labour mix be continued? Explain. (2 marks)
- iii) Compute the variable manufacturing overhead spending and efficiency variances. What relationship can you see between this efficiency variance and the labour efficiency variance? (11 marks)

(11 marks)
Total (35 marks)

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QUESTION 3:

The Pathology Laboratory service of the Ubombo referral hospital provides diagnostic services to support the care provided government hospitals, private clinics and other healthcare providers. The importance of the work done by the Pathology Laboratory was summarised by the Head of the laboratory.

‘Over 70% of diagnostic and treatment decisions made by Doctors are based on medical laboratory test results. Without our work, doctors would not be able to confirm their diagnosis. Laboratory results give us the ability to identify diseases at the earliest stages so that we have a better chance of treating people efficiently. The types of tests performed by our highly-trained staff encompass the entire spectrum of human disease, from routine diagnostic services to clinical laboratories that specialise in bone marrow transplants. The laboratories provide over four million tests each year, providing doctors with the information needed for diagnosis and treatment of all kinds of conditions. Our vision is to continually improve the efficiency of the laboratory to ensure the best economic approach to patient care.’

The management team of the Ubombo hospital has decided that the use of the balanced scorecard should be cascaded down to department level. Consequently, departmental managers have been given the task of designing a balanced scorecard for their departments.

Required:

- i) Recommend an objective and suitable performance measure for each of the three non – financial perspectives of a balanced scorecard that the pathology Laboratory could use. (Note: in your answer, you should state three perspectives and then recommend an objective and performance measure for each one of your three perspectives). **(15 Marks)**
- ii) Otley (1999) identified five main sets of issues that need to be addressed in developing a framework for managing organisational performance. What are the five question sets that he suggested for representing these issues? **(10 Marks)**

QUESTION 4

‘Responsibility accounting is based on the application of the controllability principle’

- i) Explain the controllability principle and why its application is difficult to attain in practice. **(7 Marks)**
- ii) Briefly discuss the four types of responsibility centres **(8 Marks)**

Total:

[15Marks]