NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF ACCOUNTING

SUPPLEMENTRY EXAMINATION OCTOBER 2009

MANAGEMENT AND COST ACCOUNTING II CAC 2205

TIME ALLOWED: 3 HOURS

INSTRUCTIONS TO CANDIDATES

i. Answer all **four** questions
ii. Begin each question on a new page

QUESTION	TOPIC	MARKS
1	VARIANCE ANALYSIS	25
2	RELEVANT COSTING	25
3	DECISION MAKING	25
4	MAKE OR BUY	25

QUESTION 1 (25 marks)

The following data relates to Janet Limited:

Budgeted and standard cost data for the month ended 31 October2008

Budgeted sales and production for the month is 10000 units

Standard cost for each unit of product:

Direct material X	10 kgs at $1 / kg
Y	5 kgs at $5 /kg
Direct wages	5 hours at $3 / hr

Fixed production overhead is absorbed at 200% of direct wages
Budgeted sales price is $100

Actual data for the month ended 31 October 2008

Production	9500 units sold at a price 10% higher than that budgeted
Direct materials consumed X	96000 kgs at $1.20 / kg
Y	48000 kgs at $4.70 /kg
Direct wages incurred	46000 hrs at $3.20 per hour

Fixed production overhead incurred $290000

REQUIRED

(a) Calculate 14 variances from the information given **(20 marks)**
(b) Reconcile the budgeted profit with the actual profit **(5 marks)**

QUESTION 2 (25 marks)

The company is considering relocating its division Northern to southern division. Within six weeks of taking over the company and offering many assurances, the company's directors are talking of closing departments, transferring work to other divisions, cost reduction schemes, reviewing manpower levels and moral was falling rapidly. Finally the company was considering buying the starter drive from the southern division and closing one section of a department in the northern division. The divisional manager made the following comments in the meeting " I am opposed to redundancies in this department that has creditable record and is staffed by young enthusiastic employees who were given firm assurance upon takeover that work would not be transferred elsewhere .'' You as the management accountant you are provided with the following information in order to advise management.

i) If the production of starter driver ceases the machinery would be rendered redundant and consequently a loss on sale of some $20 000 would be incurred.

Starter drive sub assembly Report

1) The sub assembly is manufactured by machinery which costs $40 000 five years ago and is being depreciated over ten years on a straight line basis. If production ceases there is little chance of the machinery being used elsewhere and the resale value will be negligible.
2) Production of starter drives is currently running at 1000 per month. A study of the manufacture in the previous month revealed that the following costs were attributable to the manufacture of 1 000 sub assemblies

	$
Direct material	26 000
Direct labour	32 000
Indirect labour	8 000
Power	1 200
Maintenance	800
Sundries	400

3) The total costs for the same month of the department within which the starter drive is made were as follows

	$
Direct material	64000
Direct labour	84000
Indirect labour	28000
Power	24000
Maintainance	5 600
Sundries	4 800
Insurance of machinery	4 000
Depreciation of machinery	16000
Canteen and welfare costs	2 800
Apportioned fixed overhead	24000

4) If production of starter drives ceases there would be the following savings:
   Insurance $60 per month
   Electricity $540 per month
   In addition there would be savings in canteen and welfare costs which vary with the numbers employed
5) The southern division has a quotation of $68 per starter drive. In addition there would be transport and inspection costs of $2 per subassembly

REQUIRED

ii) From a financial standpoint should the starter drive be manufactured at the Northern or Southern division?
iii) What other financial factors or otherwise would you consider relevant to the decision.

QUESTION 3 (25 Marks)

Sausage Ltd makes two products the Mash and the Sauce. Unit variable costs are as follows

	Mash	Sauce
	$	$
Direct materials	1	3
Direct labour	6	3
Variable overhead	1	1
	8	7

The sales price per unit is $1 400 per Mash and $1100 per sauce. During July the available direct labour is limited to 8000 hours. Sales demand in July is expected to be as follows.

Mash	3000 units
Sauce	5000 units

REQUIRED

a) Determine that labour is the limiting factor **(5 marks)**

b) Calculate the contribution earned by each product per unit of scarce resource. **(5 marks)**

c) Determine the number of units to be produced of each product taking into account the limiting factor **(5 marks)**

d) Using your answer in (c) calculate the profit assuming that fixed costs per month are $20 000. **(5 marks)**

e) Comment on the results. **(5 marks)**

QUESTION 4 (25 Marks)

R& D Ltd are jobbing engineers whom you are advising. The three manufacturing departments comprise the foundry, the machine shop and the fitting shop. A manager is in charge of each department and responsible to the managing director for the departmental profitability.

Much of the company's turnover is attributable to a single product a valve that is cast in the foundry, machined in the machine shop and assembled in the fitting shop. Output of the foundry is transferred to the machine shop at an internal transfer price of $4 per unit and output of the machine shop is transferred to the fitting shop at an internal transfer price of $11 per unit. The standard cost of this valve is made up as follows:

	Foundry	Machine Shop	Fitting	Total
	$	$	$	$
Raw material – Bought in		4.00	11	
Bought out	0.50		0.75	1.25
Labour	1.00	2.00	0.75	3.75
Overheads: Absorbed on the Expected annual sales Of each shop at 200%of labour	2.00	4.00	1.50	7.50
	3.50	10.00	14.00	12.50
Transfer price / selling price	4.00	11.00	14.25	14.25
Profit	0.50	1.00	0.25	1.75

The managing director tells you that he is having difficulty with his managers. The machine shop manager claims that casting for this valve bought from the foundry are too expensive at $4 each and that he can buy a similar casting elsewhere for $3.25. The fitting shop manager in turn says that he can buy machined castings elsewhere for $9.50 as opposed to the internal transfer price of $11. Of course says the Managing Director, I cannot let them buy out like that because the foundry and the machine shop would soon be short of work. Their suggestions would not be so bad if we could dispose of either shop but as you know we cannot, In fact our overheads are fixed for a year or more to come. They do not seem to understand that the company's interest is best served if the whole valve is made on the premises."

Write a letter to the managing director stating your opinion on the argument and explaining in words and figures why you hold this opinion. Your figures should include a table comparing the results of the three different methods of manufacturing of the valve namely:

a) As at present
b) By purchasing castings
c) By purchasing machined castings