



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY
FACULTY OF MANAGEMENT SCIENCES**

DEPARTMENT OF ACCOUNTING, ECONOMICS & FINANCE

QUALIFICATION: BACHELOR OF ACCOUNTING	
QUALIFICATION CODE: 07BOAC	LEVEL: 6
COURSE CODE: CMA612S	COURSE NAME: COST AND MANAGEMENT ACCOUNTING 202
SESSION: NOVEMBER 2019	PAPER: PRACTICAL AND THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY QUESTION PAPER	
EXAMINERS:	H Namwandi, K Tjondou and A Makosa
MODERATOR:	K Boamah

<p style="text-align: center;">INSTRUCTIONS</p> <ul style="list-style-type: none">• This examination paper is made up of four (4) questions.• Answer All the questions and in blue or black ink.• Show all your workings.• Start each question on a new page in your answer booklet and show all your workings.• Staple all additional papers in the answer book before handing it to invigilator.• Questions relating to this paper may be raised in the initial 30 minutes after the start of the paper. Thereafter, candidates must use their initiative to deal with any perceived error or ambiguities and any assumption made by the candidate should be clearly stated.
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PERMISSIBLE MATERIALS

Non-programmable calculator
Graph paper

THIS QUESTION PAPER CONSISTS OF 4 PAGES (Excluding this front page)

Question 1

(25 marks)

The Telephone Co (T Co) is a company specializing in the provision of telephone systems for commercial clients. There are two parts to the business:

- installing telephone systems in businesses, either first time installations or replacement installations;
- supporting the telephone systems with annually renewable maintenance contracts.

T Co has been approached by a potential customer, Push Co, who wants to install a telephone system in new offices it is opening. Whilst the job is not a particularly large one, T Co is hopeful of future business in the form of replacement systems and support contracts for Push Co. T Co is therefore keen to quote a competitive price for the job. The following information should be considered:

1. One of the company's salesmen has already been to visit Push Co, to give them a demonstration of the new system, together with a complimentary lunch, the costs of which totalled N\$400.
2. The installation is expected to take one week to complete and would require three engineers, each of whom is paid a monthly salary of N\$4 000. The engineers have just had their annual renewable contract renewed with T Co. One of the three engineers have spare capacity to complete the work, but the other two would have to be moved from contract X in order to complete this one. Contract X generates a contribution of N\$5 per engineer hour. There are no other engineers available to continue with Contract X if these two engineers are taken off the job. It would mean that T Co would miss its contractual completion deadline on Contract X by one week. As a result, T Co would have to pay a one-off penalty of N\$500. Since there is no other work scheduled for their engineers in one week's time, it will not be a problem for them to complete Contract X at this point.
3. T Co's technical advisor would also need to dedicate eight hours of his time to the job. He is working at full capacity, so he would have to work overtime in order to do this. He is paid an hourly rate of N\$40 and is paid for all overtime at a premium of 50% above his usual hourly rate.
4. Two visits would need to be made by the site inspector to approve the completed work. He is an independent contractor who is not employed by T Co, and charges Push Co directly for the work. His cost is N\$200 for each visit made.
5. T Co's system trainer would need to spend one day at Push Co delivering training. He is paid a monthly salary of N\$1 500 but also receives commission of N\$125 for each day spent delivering training at a client's site.
6. 120 telephone handsets would need to be supplied to Push Co. The current cost of these is N\$18.20 each, although T Co already has 80 handsets in inventory. These were bought at a price of N\$16.80 each. The handsets are the most popular model on the market and frequently requested by T Co's customers.

7. Push Co would also need a computerised control system called 'Swipe 2'. The current market price of Swipe 2 is N\$10 800, although T Co has an older version of the system, 'Swipe 1', in inventory, which could be modified at a cost of N\$4,600. T Co paid N\$5 400 for Swipe 1 when it ordered it in error two months ago and has no other use for it. The current market price of Swipe 1 is N\$5 450, although if T Co tried to sell the one, they have, it would be deemed to be 'used' and therefore only worth N\$3 000.
8. 1,000 metres of cable would be required to wire up the system. The cable is used frequently by T Co and it has 200 metres in inventory, which cost N\$1.20 per metre. The current market price for the cable is N\$1.30 per metre.
9. You should assume that there are four weeks in each month and that the standard working week is 40 hours long.

Required:

- a) Prepare a cost statement, using relevant costing principles, showing the minimum cost that T Co should charge for the contract. Make DETAILED notes showing how each cost has been arrived at and EXPLAINING why each of the costs above has been included or excluded from your cost statement. (16 marks)
- b) List and explain three relevant costing principles used in part (a) (6 marks)
- c) Explain the implications of the minimum price that has been calculated in relation to the final price agreed with Push Co. (3 marks)

Question 2

(25 Marks)

Rehoboth Limited is a manufacturing company which evaluates managerial performance by comparing actual with budgeted results. The cost accountant compiled the following information for the appliance's division, but failed to flex the budgeted to actual sales:

September 2018 budget report	Budgeted	Actual
Sales and production volumes (units)	5 000	5 500
	N\$	N\$
Sales revenue	1 000 000	1 078 000
Direct material (Budget: 1 kg per unit)	250 000	284 350
Direct labour (Budget: 5 hours per unit)	150 000	176 000
Production overheads (fixed and variable)	300 000	308 000
Administrative overheads – all fixed	200 000	190 000

Additional information for the appliance's division:

Budgeted production overheads and output for the previous two months were:

	July 2018	August 2018
Budgeted output (units)	4 000	3 000
Budgeted cost	N\$210 000	N\$170 000

Experience indicates that additional fixed manufacturing overheads of N\$50 000 are required when production volumes exceed 4 500 units per month.

Actual production information for September 2018 is as follows:

- Fixed production overheads: N\$104 500
- Raw material used per unit: 1.1 kilograms (kg)
- Production hours worked: 22 000 hours

Required:

- (a) Calculate the September's budgeted profit (variable) for Rehoboth Limited. (6 Marks)
- (b) Prepare detailed variable standard cost variances based on a flexed budget for the appliances division for September 2018 and reconcile the budgeted profit to actual profit (assume actual profit is N\$119 650). (15 marks)
- (c) Explain the differences between standard absorption costing and standard variable costing as regards the determination of:
- The sales volume variance (1 mark)
 - The fixed overhead volume variance (1 mark)
 - Inventory valuation and its effect on profit (2 marks)

Question 3

(25 Marks)

Higgins Co (HC) manufactures and sells pool cues and snooker cues. The cues both use the same type of good quality wood (ash) which can be difficult to source in sufficient quantity. The supply of ash is restricted to 5 400 kg per period. Ash costs N\$40 per kg.

The cues are made by skilled craftsmen (highly skilled labour) who are well known for their workmanship. The skilled craftsmen take years to train and are difficult to recruit. HC's craftsmen are generally only able to work for 720 000 minutes in a period. The craftsmen are paid N\$18 per hour.

HC sells the cues to a large market. Demand for the cues is strong, and in any period, up to 15 000 pool cues and 12 000 snooker cues could be sold. The selling price for pool cues is N\$41 and the selling price for snooker cues is N\$69.

Manufacturing details for the two products are as follows:

	Pool cues	Snooker cues
Craftsmen time per cue	0.5 hours	0.75 hours
Ash per cue	270 gm	270 gm
Other variable cost per cue	N\$1.20	N\$4.70

HC do not keep inventory.

Requirements:

- a) Determine the optimal production plan for a typical period assuming that HC is seeking to maximise profit. You should use a linear programming graph, identify the feasible region and the optimal point and accurately calculate the maximum contribution that could be earned using whichever equations you need. (19 Marks)
- b) Explain the meaning of a shadow price (dual price) and calculate the shadow price of both the labour (craftsmen) and the materials (ash) if possible. (6 Marks)

Question 4**(25 Marks)**

Quail Limited is a retail distributor for computer hardware, related software and support services. The management accountant has prepared sales budgets for the first semester of 2018. These are presented below:

Month	Total sales
January	N\$550 000
February	N\$500 000
March	N\$480 000
April	N\$400 000
May	N\$425 000
June	N\$600 000

Cash sales amount to 25% of the total sales. Collections of the credit sales are as follows:

- 40% in the month of sale and is subject to a 4% discount
- 30% one month after the month of sale
- 28% two months after the month of sale and
- the remainder is uncollectible.

Quail Limited's inventory requirements are equal to 30% of the next month's sales. The purchases' terms of payment require a down payment of 45% and the balance is payable 30 days thereafter. July's total sales are expected to be N\$620 000. Quail Limited had a bank overdraft of N\$150 000 on 1 May 2018.

Required:

- a) Identify and explain six objectives of a budgetary control system. (12 marks)
- b) Discuss the advantages of Zero-based budgeting. (4 marks)
- c) Prepare a cash budget for Quail Limited by month for May and June 2018. Show all your calculations. (9 marks)

THE END

