



FACULTY/COLLEGE	College of Business and Economics
SCHOOL	School of Accounting
DEPARTMENT	Commercial Accounting
CAMPUS(ES)	SWC and DFC
MODULE NAME	Costing and Estimating 1A
MODULE CODE	BKM11A1/CAE01A1/FPO0AA1/BKM1AA0
SEMESTER	First
ASSESSMENT OPPORTUNITY, MONTH AND YEAR	Final Assessment Opportunity 1 June 2019

ASSESSMENT DATE	June 2019	SESSION	16:30 – 19:30
ASSESSOR(S)	Mr D du Plessis & Ms R Benedict		
MODERATOR(S)	Ms M Nevhutanda		
DURATION	180 minutes	TOTAL MARKS	100

NUMBER OF PAGES OF QUESTION PAPER (Including cover page)	7
---	----------

INFORMATION/INSTRUCTIONS:

- Answer all questions. Show all calculations and workings clearly.
- Silent, non-programmable calculators may be used.
- Where applicable, round all calculations to two decimal places, unless stipulated otherwise.

QUESTION	TOPIC	MARKS	TIME
1	Introduction to Cost and Management Accounting	20	36 minutes
2	Material	20	36 minutes
3	Labour	20	36 minutes
4	Overheads	20	36 minutes
5	Cost-Volume-Profit Analysis	20	36 minutes
		100	180 minutes

QUESTION 1**[20 MARKS]**

You are working at Projectors (Pty) Ltd, who is manufacturing projectors that are used for class rooms around the country. You have just received the following information.

Costs	Number of Projectors		
	1 500	2 500	3 000
Cases	R45 000	R75 000	R90 000
Electronics	R75 000	R125 000	R150 000
Lenses	R15 000	R25 000	R30 000
Direct labour	R150 000	R250 000	R300 000
Machine maintenance	R15 000	R15 000	R15 000
Electricity used in the manufacturing department	R24 000	R40 000	R36 000
Rent of the admin offices	R120 000	R120 000	R120 000
Salary of the sales representative	R130 000	R140 000	R160 000

REQUIRED:

- 1.1 Calculate the prime cost for 1 500 Projectors. **(2)**
- 1.2 Calculate the manufacturing overhead costs for 1 500 Projectors. **(2)**
- 1.3 Calculate the conversion cost for 1 500 Projectors. **(2)**
- 1.4 Calculate the total manufacturing costs for 1 500 Projectors. **(2)**
- 1.5 Calculate the non-manufacturing costs for 2 500 Projectors. **(2)**
- 1.6 Electricity used in the manufacturing department is a mixed cost. Split this cost into its fixed and variable cost components. **(7)**
- 1.7 Calculate the electricity cost, should the company manufacture 3 500 Projectors. **(3)**

QUESTION 2**[20 MARKS]**

Utensils R Us Ltd manufactures different types of stainless steel cutlery. The following information is for the stainless steel sheets that are used to manufacture the cutlery during January 2019:

Opening balance on 1 January 2019 was 50 sheets at R85 per sheet.	
Purchases	
10 January	80 sheets at R80 per sheet
23 January	60 sheets for a total cost of R4 920
Issues	
14 January	90 sheets to the manufacturing department
Returns	
17 January	Five sheets received on 10 January are of substandard quality and are returned to the supplier

Utensils R Us uses the weighted average method (WAM) for inventory valuation.

Additional Information:

Utensils R Us uses an average of 2 600 stainless steel sheets per year. The cost for placing an order is R1 000 and the holding cost is R25 per sheet. Utensils R Us has a very good relationship with the supplier of the stainless steel sheets, the normal lead-time is 2 weeks, and it is only in abnormal circumstances that this can increase to 5 weeks.

REQUIRED:

- 2.1 Determine the value of the closing inventory for the sheets on 31 January 2019. Use an inventory ledger card in the following format in presenting your answer: **(10)**

Date	Description	Receipts			Issues			Balance		
		Units	C/u	Total cost	Units	C/u	Total cost	Units	C/u	Total cost

- 2.2 Calculate the Economic order quantity (EOQ). **(4)**
- 2.3 Calculate the safety inventory. **(2)**
- 2.4 Calculate the reorder level. **(2)**
- 2.5 Calculate the economic average inventory. **(2)**

QUESTION 3**[20 MARKS]****PART A**

The assistant financial manager of a sales company receives the following remuneration:

Weeks per annum	52 weeks
Paid leave per annum	3 weeks
Public holidays	9 days
Working week (5 days x 8 hours)	40 hours
Idle time	8%
Basic monthly salary	R55 000
Annual Bonus	R55 000
Employer contributions: UIF	1%
Employer contributions: Pension Fund	R21 300

REQUIRED:

Calculate the labour recovery rate for the assistance financial manager of the Sales Company. **(10)**

PART B

The following information relates to a production line employee of a manufacturing company for the week ending 12 May 2019:

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8	8	8	8	8	0	5

Additional Information:

- a) Sundays and public holidays are paid at double time while all other overtime is paid at a time-and-a-half.
- b) The following contributions were made by the employee:
 - a. Medical Aid Fund (4%)
 - b. Unemployment insurance fund (1%)
 - c. Pension fund (5%)
- c) PAYE: 20%
- d) All employees are expected to work 5 days per week for 40 hours from Monday to Friday
- e) Employees receives an annual protective clothing allowance of R10 400.
- f) The normal wage rate is R80 per hour.

REQUIRED:

Calculate the net wage payable to the employee.

(10)

QUESTION 4**[20 MARKS]**

Bumper to Bumper is a company that manufactures of car parts. The products are manufactured in two departments and the company uses departmentalisation to allocate their manufacturing overheads. The following was obtained from the company on 31st May 2019.

Allocation of manufacturing overhead costs is based on the following:

Basis	Production Department A	Production Department B	Service Department
Floor area	270m ²	250m ²	190m ²
Value of equipment	14 000	25 000	5 300
Kilowatts hours	1 250	1 300	400
Machine hours	1 300	800	400
Number of employees	13	15	9

The schedule of budgeted manufacturing overhead costs is as follows:

Depreciation	9 830
Rent expense	18 000
Electricity	12 500
Protective clothing	10 800
Indirect material	
Production department 1	12 000
Production department 2	15 000
Service department	9 500

The secondary allocation is done according to machine hours.

REQUIRED:

Draw a table to calculate the primary- and the secondary- allocation of overhead costs.

(20)

QUESTION 5**[20 MARKS]**

Supper Sports Shop (SSS) Ltd produces and sells sports clothing for different sports clubs. The following information is for the month ending 31st May 2019.

Selling price per short	R250
Variable costs per units:	
Socks	R50
Arm band	R20
Head band	R30
The cleaner is paid at	R45 per hour
Fixed costs:	
Manufacturing overheads	R560
Administration and selling expenses	R450
Other fixed cost	R250
Sales for the month amount to 52 items.	

REQUIRED:

Determine the following for Super Sports Shop (SSS) Ltd:

- | | | |
|-----|-----------------------------|------------|
| 5.1 | Marginal income per unit | (3) |
| 5.2 | Marginal ratio | (3) |
| 5.3 | Break - even point in units | (3) |
| 5.4 | Break - even point in rands | (3) |
| 5.5 | Margin of safety in units | (3) |
| 5.6 | Margin of safety in rands | (3) |
| 5.7 | Margin of safety in ratio | (2) |