ПATIBIA UПIVERSITY
OF SCIEПCE AПD TECHПOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION

DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE

| QUALIFICATION CODE: 07BHOM \& 07BOTM | LEVEL: 6 |
| :--- | :--- |
| COURSE CODE: CAH610S | COURSE NAME: COST \& MANAGEMENT <br> ACCOUNTING FOR HOSPITALITY \& TOURISM |
| DATE: JANUARY 2024 | PAPER: THEORY AND CLACULATIONS |
| DURATION: 3 HOURS | MARKS: 100 |


| SECOND OPPORTUNITY EXAMINATION PAPER |  |
| :--- | :--- |
| EXAMINER | Sheehama, K.G.H. |
| MODERATOR | Odada, L. |
| INSTRUCTIONS |  |
| 1. <br> 2. This question paper is made up of four (4) questions. <br> 2. Answer ALL the questions in blue or black ink only. NO pencil <br> 3. Start each question on a new page in your answer booklet and show all workings. <br> 4. Work with four (4) decimal places in all your calculations and only round off only final <br> answers to two (2) decimal places unless otherwise stated. <br> 5. Questions relating to this examination may be raised in the initial 30 minutes after the <br> start of the paper. Thereafter, candidates must use their initiative to deal with any <br> perceived error or ambiguities \& any assumption made by the candidate should be <br> clearly stated. |  |

NON - PROGRAMMABLE CALCUTOR

1. Examination paper
2. Examination script

Each of the following questions (1.1-1.15) has only ONE correct answer. Please answer this question ON the answer sheet provided. E.g. 1.1-A
1.1 Management accounting is used by:
a) Shareholders
b) Internal managers
c) Employees
d) External users
e) None of the above
1.2 Management accounting has the following functions:
a) Providing information to external parties
b) Estimating costs of products and services
c) Providing information for internal use
d) a and c
e) b and c
1.3 In the code of ethics followed by management accountants, integrity is:
a) Being honest, standing for what is right
b) Being just and unbiased
c) Being courteous and decent
d) Not revealing or disclosing privileged or private information
e) Accepting the consequences of actions and decisions
1.4 In the code of ethics followed by management accountants, confidentiality is:
a) Being honest, standing for what is right
b) Being just and unbiased
c) Being courteous and decent
d) Not revealing or disclosing privileged or private information
e) Accepting the consequences of actions and decisions
1.5 In the code of ethics followed by management accountants, accountability is:
a) Being honest, standing for what is right
b) Being just and unbiased
c) Being courteous and decent
d) Not revealing or disclosing privileged or private information
e) Accepting the consequences of actions and decisions
1.6 Fixed cost per unit:
a) Increases as activity volume decreases
b) Remains constant with volume of activity
c) Increases as activity volume increases
d) Dcreases as activity volume increases
e) b and c
1.7 A cost that will change in the future due to a decision being made is known as:
a) An opportunity cost
b) A sunk cost
c) A changing cost
d) An incremental cost
e) A relevant cost
1.8 Conversion costs include:
a) Direct labour
b) Direct material
c) Direct material and manufacturing overheads
d) Direct labour and direct materials
e) Direct labour and manufacturing overheads
1.9 Costs unaffected by a choice between alternatives and have been included in the past is:
a) A sunk cost
b) A period cost
c) A product cost
d) A direct cost
e) An indirect cost
1.10 Variable cost per unit:
a) Increases as activity volume decreases
b) Remains constant with volume of activity
c) Decreases as activity volume increases
d) a and b
e) b and c
1.11 A company has fixed costs of $N \$ 60000$ per annum. It manufactures a single product which it sells for N\$20 per unit. Its variable cost to sales ratio is 60\%. The company's break-even point in $\mathbf{N} \$$ is:
a) $\mathrm{N} \$ 240000$
b) $\mathrm{N} \$ 260000$
c) $N \$ 160000$
d) $N \$ 150000$
e) None of the above
1.12 Luxury Hotel Ltd supplied the following details regarding its product:

Selling price per unit
Variable production cost per unit
Variable selling cost per unit
Fixed production cost per year
Fixed selling costs per year
The contribution margin per unit is:

N\$600.00
N\$120.00
N\$40.00
N\$358 000
N\$60 000
a) $N \$ 160$
b) $\mathrm{N} \$ 560$
c) $N \$ 440$
d) $N \$ 480$
e) None of the above

The following details refer to questions 1.13 and 1.14:
Nam-Shoes Ltd currently sells 2500 pairs of shoes per year. Other details for the past year are as follows:

Selling price per pair of shoes $N \$ 200$
Purchase cost per pair of shoes $N \$ 125$

Annual fixed costs:

| Salaries | $\mathrm{N} \$ 65000$ |
| :--- | :--- |
| Advertising | $\mathrm{N} \$ 20000$ |
| Miscellaneous | $\mathrm{N} \$ 35000$ |

1.13 The company's break-even in number of shoes is:
a) 1200
b) 1400
c) 1600
d) 1500
e) None of the above
1.14 Assume that for the next year an additional fixed advertising campaign costing N\$8700 is proposed, whilst at the same time selling price is increased by $12 \%$. In this case the new contribution margin per pairs of shoes will be:
a) $N \$ 75.00$
b) $N \$ 99.00$
c) $N \$ 77.50$
d) $N \$ 97.50$
e) None of the above
1.15 A firm's water and electricity account would normally be classified into the following category:
a) Fixed cost
b) Variable cost
c) Stepped fixed cost
d) Semi-variable/mixed cost
e) None of the above

## QUESTION 2

(20 MARKS)
The Patio is a manufacturer of garden furniture that has consistently used First-In-First-Out (FIFO) in valuing inventory. The management of the Patio are now interested in knowing the effect of using Weighted Average Cost (AVCO) in inventory valuation instead of FIFO. The following transactions for the Patio were recorded for the period:

| 2 August | Opening inventory | 100 units | @N\$50 per unit |
| :--- | :--- | :--- | :--- |
| 5 August | Received | 120 units | @N\$57.50 per unit |
| 6 August | Issued/sales | 200 units |  |
| 7 August | Received | 180 units | @N\$60 per unit |
| 8 August | Issued/sales | 150 units |  |
| 9 August | Return to supplier units purchased on 7 August | 20 units |  |


| REQUIRED: |  | MARKS |
| ---: | :--- | :---: |
| a) | Prepare an inventory ledger card of the Patio for the month of August <br> using four columns showing the date, receiving, issuing, and balancing <br> columns. Each column contains quantity, unit price and the total amount | 14 |
| b) | Calculate the gross profit of the Patio. Assume that the selling price is <br> $N \$ 300$ per unit. | 6 |

Angie Silva has recently opened The Sandal Shop in Rundu, a store that specializes in fashionable sandals. Angie has just received a degree at the NUST and she is anxious to apply the principles she has learned. In time, she hopes to open a chain of sandal shops.

As a first step, she has prepared the following analysis for her new store:

| Sales price per pair of sandals | $N \$ 400$ |
| :--- | ---: |
| Variable expenses per pair of sandals | $\underline{160}$ |
| Contribution margin per pair of sandals | $\underline{\underline{N \$ 240}}$ |
| A pair of sandals sold | 320 |

Fixed expenses per year:

| Building rental | N\$15000 |
| :--- | ---: |
| Equipment depreciation | 7000 |
| Selling expenses | 20000 |
| Administrative expenses | $\underline{18000}$ |
| Total fixed expenses | $\underline{N} \mathbf{\$ 6 0 0 0 0}$ |


| REQUIRED: |  | MARKS |
| ---: | :--- | :---: |
| a) | Calculate how many pairs of sandals must be sold each year to break even <br> in units and N\$. | 6 |
| b) | Angie has decided that she must earn at least N\$31 200 as a profit in the <br> first year to justify her time and effort. Calculate how many pairs of <br> sandals must be sold to reach this target profit. | $\mathbf{3}$ |
|  | Angie now has two salespersons working in the store - one full-time and <br> one part-time. It will cost her an additional fixed expense N\$40 000 per <br> year to convert the part-time position to a full-time position. Angie <br> believes that the change will bring in an additional 300 pairs of sandals <br> annually. Would you recommend her to change the position? | $\mathbf{1 1}$ |

## QUESTION 4

The management of Penguin CC presently considers investing in a new machine which it believes will increase productivity in its factory. The initial cash outlay will be N\$334000 and a return of at least $12 \%$ per annum is required on all new capital projects. It is estimated that the following cash flows will be derived from operations with this new machine:

| Year | Cash flow |
| :---: | ---: |
| 1 | $\mathrm{~N} \$ 155000$ |
| 2 | $\mathrm{~N} \$ 144000$ |
| 3 | $\mathrm{~N} \$ 75000$ |
| 4 | $\mathrm{~N} \$ 61000$ |
| 5 | $\mathrm{~N} \$ 12161$ |

## Additional information:

The factory supervisor is of the opinion that this machine will have an economic useful life of 5 years after which it will most probably have no resale value.

| REQUIRED: |  | MARKS |
| ---: | :--- | :---: |
| a) | Make a recommendation to the management of the corporation as to the <br> viability of investing in this machine. Make use of the net present value <br> method. | 10 |
| b) | Calculate the discounted payback period of the project | 10 |
|  | Mr Nicol, one of the senior members of the corporation has stated that, <br> according to his calculations, the actual rate of return of this investment <br> is 15\%. State, with reasons, whether you agree with Mr Nicol or not. You <br> may substantiate your statement with the aid of additional calculations | 10 |

APPENDIX TABLE 1

## Present Value Tables

|  | Interest Rate per Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1\% | 2\% | 3\% | 4\% | 5\% | 6\% | 7\% | 8\% | 9\% | 10\% | 11\% | 12\% | 13\% | 14\% | 15\% |
| 1 | . 990 | . 980 | . 971 | . 962 | . 952 | . 943 | . 935 | . 926 | . 917 | . 909 | . 901 | . 893 | . 885 | . 877 | . 870 |
| 2 | . 980 | . 961 | . 943 | . 925 | . 907 | . 890 | . 873 | . 857 | . 842 | . 826 | . 812 | . 797 | . 783 | . 769 | . 756 |
| 3 | . 971 | . 942 | . 915 | . 889 | . 864 | . 840 | . 816 | . 794 | . 772 | . 751 | . 731 | . 712 | . 693 | . 675 | . 658 |
| 4 | . 961 | . 924 | . 888 | . 855 | . 823 | . 792 | . 763 | . 735 | . 708 | . 683 | . 659 | . 636 | . 613 | . 592 | . 572 |
| 5 | . 951 | . 906 | . 863 | . 822 | . 784 | . 747 | . 713 | . 681 | . 650 | . 621 | . 593 | . 567 | . 543 | . 519 | . 497 |
| 6 | . 942 | . 888 | . 837 | . 790 | . 746 | . 705 | . 666 | . 630 | . 596 | . 564 | . 535 | . 507 | . 480 | . 456 | . 432 |
| 7 | . 933 | . 871 | . 813 | . 760 | . 711 | . 665 | . 623 | . 583 | . 547 | . 513 | . 482 | . 452 | . 425 | . 400 | . 376 |
| 8 | . 923 | . 853 | . 789 | . 731 | . 677 | . 627 | . 582 | . 540 | . 502 | . 467 | . 434 | . 404 | . 376 | . 351 | . 327 |
| 9 | . 914 | . 837 | . 766 | . 703 | . 645 | . 592 | . 544 | . 500 | . 460 | . 424 | . 391 | . 361 | . 333 | . 308 | . 284 |
| 10 | . 905 | . 820 | . 744 | . 676 | . 614 | . 558 | . 508 | . 463 | . 422 | . 386 | . 352 | . 322 | . 295 | . 270 | . 247 |
| 11 | . 896 | . 804 | . 722 | . 650 | . 585 | . 527 | . 475 | . 429 | . 388 | . 350 | . 317 | . 287 | . 261 | . 237 | . 215 |
| 12 | . 887 | . 788 | . 701 | . 625 | . 557 | . 497 | . 444 | . 397 | . 356 | . 319 | . 286 | . 257 | . 231 | . 208 | . 187 |
| 13 | . 879 | . 773 | . 681 | . 601 | . 530 | . 469 | . 415 | . 368 | . 326 | . 290 | . 258 | . 229 | . 204 | . 182 | . 163 |
| 14 | . 870 | . 758 | . 661 | . 577 | . 505 | . 442 | . 388 | . 340 | . 299 | . 263 | . 232 | . 205 | . 181 | . 160 | . 141 |
| 15 | . 861 | . 743 | . 642 | . 555 | . 481 | . 417 | . 362 | . 315 | . 275 | . 239 | . 209 | . 183 | . 160 | . 140 | . 123 |
| 16 | . 853 | . 728 | . 623 | . 534 | . 458 | . 394 | . 339 | . 292 | . 252 | . 218 | . 188 | . 163 | . 141 | . 123 | . 107 |
| 17 | . 844 | . 714 | . 605 | . 513 | . 436 | . 371 | . 317 | . 270 | . 231 | . 198 | . 170 | . 146 | . 125 | . 108 | . 093 |
| 18 | . 836 | . 700 | . 587 | . 494 | . 416 | . 350 | . 296 | . 250 | . 212 | . 180 | . 153 | . 130 | . 111 | . 095 | . 081 |
| 19 | . 828 | . 686 | . 570 | . 475 | . 396 | . 331 | . 277 | . 232 | . 194 | . 164 | . 138 | . 116 | . 098 | . 083 | . 070 |
| 20 | . 820 | . 673 | . 554 | . 456 | . 377 | . 312 | . 258 | . 215 | . 178 | . 149 | . 124 | . 104 | . 087 | . 073 | . 061 |

Discount factors: Present value of $\$ 1$ to be received after $t$ years $=1 /(1+r)^{t}$.

| Number |  |  |  |  |  |  |  | Inte | st Rate | per Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| of Years | 16\% | 17\% | 18\% | 19\% | 20\% | 21\% | 22\% | 23\% | 24\% | 25\% | 26\% | 27\% | 28\% | 29\% | 30\% |
| 1 | . 862 | . 855 | . 847 | . 840 | . 833 | . 826 | . 820 | . 813 | . 806 | . 800 | . 794 | . 787 | . 781 | . 775 | . 769 |
| 2 | . 743 | . 731 | . 718 | . 706 | . 694 | . 683 | . 672 | . 661 | . 650 | . 640 | . 630 | . 620 | . 610 | . 601 | . 592 |
| 3 | . 641 | . 624 | . 609 | . 593 | . 579 | . 564 | . 551 | . 537 | . 524 | . 512 | . 500 | . 488 | . 477 | . 466 | . 455 |
| 4 | . 552 | . 534 | . 516 | . 499 | . 482 | . 467 | . 451 | . 437 | . 423 | . 410 | . 397 | . 384 | . 373 | . 361 | . 350 |
| 5 | . 476 | . 456 | . 437 | . 419 | . 402 | . 386 | . 370 | . 355 | . 341 | . 328 | . 315 | . 303 | . 291 | . 280 | . 269 |
| 6 | . 410 | . 390 | . 370 | . 352 | . 335 | . 319 | . 303 | . 289 | . 275 | . 262 | . 250 | . 238 | . 227 | . 217 | . 207 |
| 7 | . 354 | . 333 | . 314 | . 296 | . 279 | . 263 | . 249 | . 235 | . 222 | . 210 | . 198 | . 188 | . 178 | . 168 | . 159 |
| 8 | . 305 | . 285 | . 266 | . 249 | . 233 | . 218 | . 204 | . 191 | . 179 | . 168 | . 157 | . 148 | . 139 | . 130 | . 123 |
| 9 | . 263 | . 243 | . 225 | . 209 | . 194 | . 180 | . 167 | . 155 | . 144 | . 134 | . 125 | . 116 | . 108 | . 101 | . 094 |
| 10 | . 227 | . 208 | . 191 | . 176 | . 162 | . 149 | . 137 | . 126 | . 116 | . 107 | . 099 | . 092 | . 085 | . 078 | . 073 |
| 11 | . 195 | . 178 | . 162 | . 148 | . 135 | . 123 | . 112 | . 103 | . 094 | . 086 | . 079 | . 072 | . 066 | . 061 | . 056 |
| 12 | . 168 | . 152 | . 137 | . 124 | . 112 | . 102 | . 092 | . 083 | . 076 | . 069 | . 062 | . 057 | . 052 | . 047 | . 043 |
| 13 | . 145 | . 130 | . 116 | . 104 | . 093 | . 084 | . 075 | . 068 | . 061 | . 055 | . 050 | . 045 | . 040 | . 037 | . 033 |
| 14 | . 125 | . 111 | . 099 | . 088 | . 078 | . 069 | . 062 | . 055 | . 049 | . 044 | . 039 | . 035 | . 032 | . 028 | . 025 |
| 15 | . 108 | . 095 | . 084 | . 074 | . 065 | . 057 | . 051 | . 045 | . 040 | . 035 | . 031 | . 028 | . 025 | . 022 | . 020 |
| 16 | . 093 | . 081 | . 071 | . 062 | . 054 | . 047 | . 042 | . 036 | . 032 | . 028 | . 025 | . 022 | . 019 | . 017 | . 015 |
| 17 | . 080 | . 069 | . 060 | . 052 | . 045 | . 039 | . 034 | . 030 | . 026 | . 023 | . 020 | . 017 | . 015 | . 013 | . 012 |
| 18 | . 069 | . 059 | . 051 | . 044 | . 038 | . 032 | . 028 | . 024 | . 021 | . 018 | . 016 | . 014 | . 012 | . 010 | . 009 |
| 19 | . 060 | . 051 | . 043 | . 037 | . 031 | . 027 | . 023 | . 020 | . 017 | . 014 | . 012 | . 011 | . 009 | . 008 | . 007 |
| 20 | . 051 | . 043 | . 037 | . 031 | . 026 | . 022 | . 019 | . 016 | . 014 | . 012 | . 010 | . 008 | . 007 | . 006 | . 005 |

