BOTSWANA COLLEGE OF DISTANCE AND OPEN LEARNING

In collaboration with

THE VIRTUAL UNIVERSITY FOR SMALL STATES FOR THE COMMONWEALTH

(VUSSC)

Bachelor of Business Entrepreneurship

MANAGEMENT ACCOUNTING

MA221

SPECIAL EXAMINATION

Time: 3 Hours **Marks: 100**

Instructions:

1. The examination consists of three sections: A, B and C.
2. Begin each answer to a new question on a new page.
3. Answer questions according to instructions given in each section.
4. Write answers in the answer booklet provided.
5. Write in grammatical English.

SECTION A – MULTIPLE CHOICE QUESTIONS [20 MARKS]

Answer ALL questions. Each question from 1 to 5 carries ONE (1) mark and 6 to 10 carries THREE (3) marks.

1. _____ is an example of a marketing cost.

   A. Audit fees
   B. Salary of the factory supervisor
   C. Carriage inwards
   D. Carriage outwards.

2. From the following classification of costs, _____ is correct.

	Manufacturing	**Marketing**	**Administrative**
A	Direct labour	Advertising	Bad debts
B	Direct materials	Advertising	Salary of the receptionist
C	Factory overheads	Repairs to machines	Office rent
D	Indirect materials	Repairs to factory machine	Factory rent

3. The main disadvantage of the payback period is _____.

   A. It is easy to use.
   B. It uses present value of future cash flows.
   C. It considers profitability of a project beyond the payback period.
   D. It ignores time value of money.

4. The best description of flexible budget is _____.

   A. A comprehensive set of budgets for a specified period.

B. A budget prepared after the end of the period that multiplies budgeted price per unit with actual quantities.
C. A budget prepared after the end of the period that multiplies budgeted units with actual quantities.
D. A budget that is based on the project level of activity, prior to the start of the period.

5. _____ is a responsibility centre of an organization that is held responsible for revenue, costs and capital investments.

A. Profit centre
B. Cost centre
C. Investment centre
D. Revenue centre

6. A product variable cost per unit is P25 and fixed cost of P6,000. The product's selling price is P45. How many units should be sold to realize a profit of P2000?
A. 400 units
B. 300 units
C. 600 units
D. 350 units

For questions 7and 8, use the information given below:

Kagiso is a student pursuing degree in political science at the University of Botswana. He wishes to invest, either to buy a new photocopier machine at P50,000 or a second hand car at P60 000 to be used as a taxi. Expected cash flows per annum for photocopier is P20,000 and P25,000 for the car. Economic life for both options is 5 years.

7. Based on payback period, the best advice will be _____.

A. Invest in taxi. It has higher cash inflow of P5,000 than the photocopier.

B. Opportunity cost for photocopier is higher, invest in a taxi.

C. Invest in a taxi. It has a shorter payback period of 2.4 years.

D. Invest in the photocopier. The taxi has a longer payback period of 2.5 years.

8. Based on NPV and assuming a rate of return of 12%, _____ is correct?

A. The taxi has a negative NPV of P30,120

B. The NPV for the photocopier is P72,096

C. The Present value of photocopier's cash flows will be P22,096

D. The taxi has a positive NPV of P30,120.

Use the following information for questions 9 and 10

The standard cost of material for May 2015 of product XY-221 that requires 6 metres per unit is P4.50 per metre. 67 500 metres of material were purchased at P4.20 per metre during May 2015. The actual production of product XY-221 for May 2015 was 13 500 units which used 55 500 metres of material.

9. The material purchase variance is _____.

A. P16 650 favourable

B. P16 650 unfavourable

C. P20 250 favourable

D. P20 250 unfavourable

10. The material issue price variance is _____

A. P16,650 favourable

B. P16,650 unfavourable

C. P20,250 favourable

D. P20,250 unfavourable

SECTION B – SHORT ANSWER QUESTIONS [40 MARKS]

Answer ALL questions in this Section.

1. **[14 Marks]**

(a). Using appropriate examples differentiate between the following terms.

i. Fixed and variable costs **(4 Marks)**

ii. Marginal and absorption costing **(4 Marks)**

(b). Explain three advantages of Just-in-Time **(6 Marks)**

2. Green Gems Investments is a manufacturing company. The following transactions of the company took place during the month of September 2015. **[10 Marks]**

September

1	Opening inventory	100 units at P15 per unit
9	Issued to production	60 units
13	Purchased from supplier	120 units at P16 per unit
18	Issued to production	130 units
23	Purchased from supplier	200 units at P17 per units
26	Issued to production	170

Required:

Calculate the value of closing stock on 30th September (assume there are no Work-in Progress units) using:

(a). FIFO **(3 Marks)**

(b). LIFO **(3 Marks)**

(c). Weighted Average cost **(4 Marks)**

3. Trade Traders (Pty) Ltd manufactures a single product. The following information was extracted from their budget for the year ended 30 June2015. **[16 Marks]**

Variable cost per unit	P350
Total sales	1800 units
Fixed costs	P600,000
Selling price per unit	P750

Calculate the following: (where applicable round off to the nearest Pula)

(a). Breakeven value using contribution margin ratio **(4 Marks)**

(b). Margin of safety (by value) **(3 Marks)**

(c). Sales units required for a profit of P200,000 **(4 Marks)**

(d). Breakeven quantity if selling price increased by 20%, variable cost per unit increased by 12% and fixed costs increased by P35,000. **(5 Marks)**

Section C **[40 MARKS]**

Answer ALL question in this section.

Question 1 **[20 Marks]**

The following information related to one product produced by Moleps Manufacturers (Pty) Ltd during September 2015.

Opening inventory	0
Number of units manufactured	P1,200
Number of units sold	P1,000
Selling price per unit	P1,500
Direct materials per unit	P300
Direct labour per unit	P200
Variable manufacturing cost per unit	P250
Variable selling and administrative cost per unit	P100
Fixed manufacturing cost	P400,000
Fixed selling and administrative cost	P100,000

Required

(a) Calculate absorption costing per unit (3 Marks)

(b). Calculate breakeven quantity for the company (based on absorption costing) (3 Marks)

(c). Prepare the Income Statement for the month ended 30th September 2015 using Marginal/variable costing method. (14 Marks)

Question 2 **[20 Marks]**

Kanye &Jwaneng Enterprises intends buying a new machine and the following details relate to the machine.

Purchase price	P300,000
Expected economic life	5 years
Scrap vale	0
Minimum required rate of return	12%
Expected net cash inflow End of year 1	P40,000

2	P80,000
3	P150,000
4	P90,000
5	P60,000

Depreciation is on fixed installment method.

(a). Calculate payback period for both machines (answer must be expressed in years and months. **(4 Marks)**

(b). Outline two advantages and three disadvantages of payback method **(5 Marks)**

(c). Calculate the Accounting Rate of Return (ARR) for machine **(5 Marks)**

(d). Calculate NPV for the machine and advice the company. **(6 Marks)**

END OF PAPER

Table 1:Present value interest factor of P1 per period at i% for n periods, PVIF(i,n).

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8547
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	0.7432	0.7305
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.6244
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.5337
5	0.9515	0.9057	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4561
6	0.9420	0.8880	0.8375	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323	0.4104	0.3898
7	0.9327	0.8706	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759	0.3538	0.3332
8	0.9235	0.8535	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	0.3050	0.2848
9	0.9143	0.8368	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	0.2630	0.2434
10	0.9053	0.8203	0.7441	0.6756	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472	0.2267	0.2080
11	0.8963	0.8043	0.7224	0.6496	0.5847	0.5268	0.4751	0.4289	0.3875	0.3505	0.3173	0.2875	0.2607	0.2366	0.2149	0.1954	0.1778
12	0.8874	0.7885	0.7014	0.6246	0.5568	0.4970	0.4440	0.3971	0.3555	0.3186	0.2858	0.2567	0.2307	0.2076	0.1869	0.1685	0.1520
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2575	0.2292	0.2042	0.1821	0.1625	0.1452	0.1299
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	0.1252	0.1110
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.2090	0.1827	0.1599	0.1401	0.1229	0.1079	0.0949

Table 2: Present value interest factor of an (ordinary) annuity of P1 per period at i% for n periods, PVIFA(i,n).

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8547
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901	1.6681	1.6467	1.6257	1.6052	1.5852
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018	2.3612	2.3216	2.2832	2.2459	2.2096
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373	2.9745	2.9137	2.8550	2.7982	2.7432
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048	3.5172	3.4331	3.3522	3.2743	3.1993
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975	3.8887	3.7845	3.6847	3.5892
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638	4.4226	4.2883	4.1604	4.0386	3.9224
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676	4.7988	4.6389	4.4873	4.3436	4.2072
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	5.1317	4.9464	4.7716	4.6065	4.4506