



PROGRAM : NATIONAL DIPLOMA
ENGINEERING : INDUSTRIAL

SUBJECT : **INDUSTRIAL ACCOUNTING 3**

CODE : **BBB 341**

DATE : SUMMER SSA EXAMINATION 2014
2 DECEMBER 2012

DURATION : (SESSION 1) 08:00 - 11:00

WEIGHT : 40 : 60

TOTAL MARKS : 100

ASSESSOR : MR P. DUBE

MODERATOR : DR C. SANANGURA 2275

NUMBER OF PAGES : 4 PAGES

INSTRUCTIONS TO STUDENTS

PLEASE ANSWER ALL QUESTIONS.
OPEN BOOK EXAMINATION
ANSWER THE QUESTIONS IN SEQUENCE

REQUIREMENTS

ONLY ONE POCKET CALCULATOR PER CANDIDATE MAY BE USED.
GRAPH PAPER

Question 1

Sipho has hired a financial analyst to evaluate the performance of the company over the past year. After rooting through old bank statements, sales receipts, tax returns and other records, the analyst has assembled the following information:

	2007	2008
Cost of goods sold	84 310	106 450
Cash	12 165	18 380
Depreciation	23 800	26 900
Interest expense	5 180	5 930
Selling and administrative expenses	16 580	21 640
Accounts payable	21 500	24 350
Non-current assets	105 000	134 000
Sales	165 390	210 600
Accounts receivable	8 620	11 182
Bank overdraft	9 800	10 700
Long-term debt	53 000	61 000
Inventory	18 140	24 894
New equity	0	10 000

Sunset Boards currently pays out 30 per cent of net profit after tax as dividends to Sipho and the other original investors, and has asked you to prepare the following:

- 1.1 A statement of financial performance and statement of financial position balance sheet for 2007 and 2008. (21)
- 1.2 Operating cash flow for each year. (4)
- 1.3 Cash flow from assets for 2008. (5)
- 1.4 Cash flow to lenders and cash flow to shareholders for 2008. (3)

Question 2

- 2.1 You hope to buy your dream house six years from now. Today your dream house costs R189 900. You expect housing prices to rise by an average of 4,5 per cent per year over the next six years. How much will your dream house cost by the time you are ready to buy it? (3)
- 2.2 You would like to give your daughter R40 000 towards her university education thirteen years from now. How much money must you set aside today for this purpose if you can earn 6,3 per cent on your funds? (3)
- 3.2 Ten years ago, Joe invested R5 000. Five years ago, Marie invested R2 500. Today, both Joe and Marie's investments are each worth R8 500. Which one of the following statements is correct concerning their investments? (5)
- 3.4 On your tenth birthday, you received R100 which you invested at 4,5 per cent interest, compounded annually. That investment is now worth R3 000. How old are you today? (4)
- 3.5 You deposit R3 000 in a retirement account today at 5,5 per cent interest. How much more money will you have if you leave the money invested for forty-five years rather than forty years? (5)

Question 3

- 3.1 You borrow R5 600 to buy a bike. The terms of the loan call for monthly payments for four years at a 5,9 per cent rate of interest. What is the amount of each payment? (5)
- 3.2 Your bike dealer is willing to lease you a new bike for R299 a month for 60 months. Payments are due on the first day of each month starting with the day you sign the lease contract. If your cost of money is 4,9 per cent, what is the current value of the lease? (6)
- 3.3 George Jefferson established a trust fund that provides R150 000 in scholarships each year for worthy students. The trust fund earns a 4,25 per cent rate of return. How much money did Mr. Jefferson contribute to the fund assuming that only the interest income is distributed? (3)

Question 4

- 4.1 Zwelithini Ltd. offers a 7 per cent coupon bond with annual payments. The yield to maturity is 5,85 per cent and the maturity date is 9 years. What is the market price of a R1 000 face value bond? (5)
- 4.2 Buti's Co. offers a zero coupon bond with an 11,3 per cent yield to maturity. The bond matures in 16 years. What is the current price of a R1 000 face value bond? (3)
- 4.3 A bond that pays interest annually yields a 7,25 per cent rate of return. The inflation rate for the same period is 3,5 per cent. What is the real rate of return on this bond? (2)

Question 5

Use the following information to answer questions 5.1 through 5.5.

- 5.1 You are considering the following two mutually exclusive projects. Both projects will be depreciated using straight-line depreciation to a zero book value over the life of the project. Neither project has any salvage value.

	Project A			Project B	
	Year	Cash Flow		Year	Cash Flow
	0	-R75 000		0	-R70 000
	1	R19 000		1	R10 000
	2	R48 000		2	R16 000
	3	R12 000		3	R72 000
Required rate of return		10 per cent			13 per cent
Required payback period		2,0 years			2,0 years
Required accounting return		8 per cent			11 per cent

- 5.1.1 What decision would you make based on the net present value method of analysis? (8)
- 5.1.2 What decision would you make based upon the payback period method? (4)
- 5.2 What is the internal rate of return on an investment with the following cash flows? (4)

Year	Cash Flow
0	-R123 400
1	R 36 200
2	R 54 800
3	R 48 100

- 5.3 Martin is analyzing a project and has gathered the following data. Based on this data, what is the average accounting rate of return? The firm depreciates its assets using straight-line depreciation to a zero book value over the life of the asset. (4)

<u>Year</u>	<u>Cash Flow</u>	<u>NPAT</u>
0	-R642 000	n/a
1	R170 000	R 9 500
2	R240 000	R79 500
3	R205 000	R44 500
4	R195 000	R34 500

- 5.4 A project has an initial cost of R8 500 and produces cash inflows of R2 600, R4 900, and R1 500 over the next three years, respectively. What is the discounted payback period if the required rate of return is 7 per cent? (4)