



**PROGRAM** : NATIONAL DIPLOMA  
*ENGINEERING: INDUSTRIAL*

**SUBJECT** : **INDUSTRIAL ACCOUNTING 3**

**CODE** : **BBB 341**

**DATE** : SUMMER EXAMINATION 2019  
12 NOVEMBER 2019

**DURATION** : (SESSION 2) 12:30 - 15:30

**WEIGHT** : 40: 60

**TOTAL MARKS** : 100

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**ASSESSOR** : MS. R.MOUCHOU

**MODERATOR** : MR P. DUBE

**NUMBER OF PAGES** : 5 PAGES

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**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.

**Question 1**

## INDUSTRIAL ACCOUNTING III BBB 341 EXAMINATION 2019

1.1 Sheryl's Shingles had sales of R10 000 in 2000. The cost of goods sold was R6 500, general and administrative expenses were R1 000, interest expenses were R500, and depreciation was R1 000. The firm's tax rate is 35 percent.

Determine:

- 1.1.1 Profit before interest and taxes? (1)
  - 1.1.2 Net profit? (1)
  - 1.1.3 Cash flow from operations? (2)
- [4]**

### **Question 2**

**The following information should be used for questions 1.1 through 1.3:**

	<u>2017</u>
Cost of goods sold	R3 210
Interest	215
Dividends	160
Depreciation	375
Change in retained profits	360
Tax rate	35%

- 2.1 Calculate the net profit after tax income for 2017. (4)
- 2.2 Calculate the operating cash flow for 2017. (4)
- 2.3 Calculate the sales for 2017. (3)

**[11]**

### **Question 3**

**The following information should be used for questions 3.1 through 3.8:**

Nlheni Inc.

	<u>2015</u>	<u>2016</u>
Sales	R 740	R 785
COGS	430	460
Interest	33	35
Dividends	16	17
Depreciation	250	210
Cash	70	75
Accounts receivables	563	502
Current liabilities	390	405
Inventory	662	640
Long-term debt	340	410
Net non-current assets	1 680	1 413
Ordinary shares	700	235
Tax rate	35%	35%

Calculate:

- 3.1 The net working capital for 2016 (2)
- 3.2 The change in net working capital from 2015 to 2016? (4)
- 3.3 The net capital spending for 2016? (2)
- 3.4 The operating cash flow for 2016? (4)
- 3.5 The cash flow from assets for 2016? (2)
- 3.6 The net new borrowing for 2016? (2)
- 3.7 The cash flow to lenders for 2016? (3)
- 3.8 The cash flow to shareholders for 2016? (3)

**[22]**

**Question 4**

- 4.1 A firm has sales of R1 200, net profits after tax of R200, Total liabilities R500, current asset of R200 and equity of R300. The firm has R100 in inventory. What is the common-size statement value of inventory? (2)
- 4.2 A firm has a debt-equity ratio of 0.60. What is the total debt ratio? (2)
- 4.3 Resources paid R250 in interest and R130 in dividends last year. The times interest earned ratio is 3.8 and the depreciation expense is R60. What is the value of the cash coverage ratio? (3)
- 4.4 Patti's has a net profit after tax of R1 800, a price-earnings ratio of 12, and earnings per share of R1.20. How many shares are outstanding? (2)

**[9]**

**Question 5**

- 5.1 The bonds issued by Jensen & Son bear a 6 per cent coupon, payable semi-annually. The bond matures in 8 years and has a R1 000 face value. Currently, the bond sells at par. What is the yield to maturity? (5)
- 5.2 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? (2)
- 5.3 The zero coupon bonds of Markco, Ltd. have a market price of R394.47, a face value of R1 000, and a yield to maturity of 6.87 per cent. How many years is it until this bond matures? (3)

**[10]**

**Question 6**

- 6.1 What is the present value of R13 450 to be received four years from today if the discount rate is 5.25 per cent? (2)
- 6.2 Dale invests R500 in an account that pays 6 per cent simple interest. How much more could he have earned over a thirty year period if the interest had compounded annually? (3)

- 6.3 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? (3)
- 6.4 Your coin collection contains fifty 1952 silver SA Rands. If you purchased them for their face value when they were new, how much will your collection be worth when you retire in 2067, assuming they appreciate at a 3 per cent annual rate of inflation (3)
- 6.5 A firm has total debt of R1 200 and a debt-equity ratio of 0.30. Determine the value of the total assets. (2)

**[13]**

### **Question 7**

- 7.1 An investment has the following cash flows. Should the project be accepted if it has been assigned a required return of 9.5 per cent? Why or why not? (5)

<u>Year</u>	<u>Cash Flow</u>
0	-R24 000
1	R 8 000
2	R12 000
3	R 9 000

- 7.2 It will cost R2 600 to acquire a small ice cream cart. Cart sales are expected to be R1 400 a year for three years. After the three years, the cart is expected to be worthless as that is the expected remaining life of the cooling system. Calculate the payback period of the ice cream cart. (3)

**[8]**

### **Question 8**

- 8.1 Calculate the net present value of a project with the following cash flows and a required return of 12 per cent. (5)

<u>Year</u>	<u>Cash Flow</u>
0	-R28 900
1	R12 450
2	R19 630
3	R 2 750

- 8.2 Yancy is considering a project which will produce cash inflows of R900 a year for 4 years. The project has a 9 per cent required rate of return and an initial cost of R2 800. Calculate the discounted payback period. (4)

<u>Year</u>	<u>Cash flow</u>
1	R900
2	R900
3	R900
4	R900

8.3 Larry's Lanterns is considering a project which will produce sales of R240 000 a year for the next five years. The profit margin is estimated at 6 per cent. The project will cost R290 000 and be depreciated straight-line to a book value of zero over the life of the project. Larry's has a required accounting return of 8 per cent. Calculate the Average Accounting Ratio. (3)

8.4 You are considering two independent projects both of which have been assigned a discount rate of 8 per cent. Based on the profitability index, what is your recommendation concerning these projects? (11)

Project A		Project B	
Year	Cash Flow	Year	Cash Flow
0	-R38 500	0	-R42 000
1	R20 000	1	R10 000
2	R24 000	2	R40 000

**[23]**