



**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**FACULTY OF INDUSTRIAL TECHNOLOGY**

**DEPARTMENT OF CIVIL AND WATER ENGINEERING**

**CIVIL ENGINEERING BUSINESS STUDIES II**

**TCW 5102**

**Main Examination Paper**

**NOVEMBER/DECEMBER 2015**

This examination paper consists of 5 pages

**Time Allowed: 3 hours**

**Total Marks: 100**

**Special Requirements: NONE**

**Examiner's Name: MR A. DUBE**

**INSTRUCTIONS**

1. Answer any Four (4) questions
2. Each question carries 25 marks
3. Use of calculators is permissible

**MARK ALLOCATION**

<b>QUESTION</b>	<b>MARKS</b>
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25
<b>TOTAL</b>	<b>100</b>

### **QUESTION 1**

- a) Explain at least ten duties of an employer under the Zimbabwean Labour Relations Act. **(15 marks)**
- b) Briefly discuss the duties of an employee as outlined in the Contract of Employment. **(5 marks)**
- c) Outlined possible ways in which a contract of employment may be terminated. **(5 marks)**

### **QUESTION 2**

- a) Explain the 'Seven' steps in the Marketing Process. **(14 marks)**
- b) Assume that you own a civil engineering consultancy firm and are facing stiff competition, explain how you would market your organization. **(11 marks)**

### **QUESTION 3**

The following trial balance is extracted from the books of FW Ltd as at 31 December 2014:

<b>Trial Balance as at 31 December 2014</b>		
	<b>Dr</b>	<b>Cr</b>
	<b>\$</b>	<b>\$</b>
10% Preference Share Capital		200 000
Ordinary Share Capital		700 000
10% Debentures (repayable 2018)		300 000
Goodwill at cost	255 000	
Buildings at cost	1 050 000	
Equipment at cost	120 000	
Motor vehicles at cost	172 000	
Provision for depreciation: buildings 1.1.2014		100 000
Provision for depreciation: equipment 1.1.2014		24 000
Provision for depreciation: motor vehicles 1.1.2014		51 600
Stock 1.1.2014	84 912	
Sales		1 022 000
Purchases	439 100	
Carriage inwards	6 200	
Salaries and wages	190 000	
Directors' remuneration	123 000	
Motor expenses	3 120	
Business rates and insurances	8 690	
General expenses	5 600	

Debenture interest	15 000	
Debtors	186100	
Creditors		113700
Bank	10 790	
General reserve		50 000
Share Premium account		100 000
Interim ordinary dividend paid	35 000	
Profit and loss account 31.12.2013		43 212
	<u>2 704 512</u>	<u>704 512</u>

**The following adjustments are needed:**

- (i) Stock at 31.12.2014 was \$91413.
- (ii) Depreciate buildings \$10 000; motor vehicles \$18 000; equipment \$12000.
- (iii) Accruals at 31.12.2014 were: debenture interest \$15 000; Salaries \$2 400.
- (iv) Insurance of \$1 690 was prepaid at 31.12.2014.
- (iv) Provide for preference dividend \$20000 and final ordinary dividend of 10 per cent.
- (v) Transfer \$10000 to general reserve.
- (vi) Write off goodwill \$30 000.
- (vii) Authorised share capital is \$200000 in preference shares and \$1 million in ordinary shares.
- (viii) Provide for corporation tax \$50000.

**Required:**

Prepare the following Statements for FW Ltd, for the year ending 31 December 2014:

- a) A Statement of Comprehensive Income **(11 marks)**
- b) A Statement of Changes in Equity **(4 marks)**
- c) A Statement of Financial Position **(10 marks)**

**QUESTION 4**

Six years ago, Thambolenyoka and Msanawenyoka completed their degree programme in the Bachelor of Engineering Honours Degree in Civil and Water Engineering at National University of Science and Technology. Like most other graduates in other disciplines, the two have not been able to secure fulltime employment due to poor economic conditions prevailing in the country. However, the two have worked here and there but, on contract basis. They believe that they have gained enough experience for them to be able to set up and run their own entity T & M Nyoka Civil and Water Consultancy. They are not so sure as to whether their organization should be run as a partnership, a private company or a public company.

**Required:**

Compare and contrast the three types of organisations being considered by Thambolenyoka and Msanawenyoka, and advise the on type of organization they should adopt.

**(25 marks)**

**QUESTION 5**

Nyama Civil and Water Engineering (Pvt) Ltd is a small firm based in Bulawayo. The firm has been experiencing a steady growth in the last five years and is currently considering two projects; one in Gweru and the other in Masvingo. Each projects requires a capital outlay of \$30 000. The following are expected net cash inflows from each of these projects:

<b>Year</b>	<b>Gweru Project</b>	<b>MasvingoProject</b>
	<b>\$</b>	<b>\$</b>
1	15 000	9 000
2	10 000	9 000
3	8 000	9 000
4	6 000	9 000

Assume that the firm's cost of capital is 10%.

**Required:**

- a) For each Project calculate the following:
- i) Payback Period ..... **(2 marks)**
  - ii) Discounted Payback Period ..... **(5 marks)**
  - iii) Net Present value (NPV)..... **(3 marks)**
  - iv) Profitability Index (P.I.) ..... **(2 marks)**
  - v) Internal Rate of Return (IRR) ..... **(5 marks)**
  - vi) Modified Internal Rate of Return..... **(5 marks)**
- b) Explain which project is preferable. (Give reasons) ..... **(3 marks)**

**QUESTION 6**

Kukhanya intends to open a retail shop on 3 January 2016. The shop will deal specifically incivil engineering tools. She wants to invest \$30000 as capital. Her plans are as follows:

(i) On 3 January 2016 to buy and pay for premises \$60 000; shop fixtures \$4 000; motor van \$8000.

(ii) To employ two assistants, each to get a salary of \$130 per month, to be paid at the end of each month.

(iii) To buy the following goods for resale:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>
Purchases:	\$4 200	\$4 620 \$5 880	\$8 400	\$9 600	\$7 920	

(iv) To sell the following goods:

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>
Sales:	\$10 800	\$16 200	\$21 600	\$27 000	\$35 100	\$37 800

(v) Two-thirds of the sales are for cash, the other one-third being on credit. These latter customers are expected to pay their accounts in the third month following that in which they received their goods.

(vi) Creditors will be paid in the second month following purchase.

(vii) The other expenses of the shop will be \$450 per month payable in the month following that in which they were incurred.

(viii) Part of the premises will be sub-let as an office at a rent of \$8000 per annum. This is paid in equal instalments in March, June, September and December.

**Required:**

(a) Draw up a cash budget for Kukhanya for the six months ending 30 June 2016, showing the balance of cash at the end of each month. **(20 marks)**

(b) Explain the purposes of a cash budget. **(5 marks)**