



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF INDUSTRIAL TECHNOLOGY

DEPARTMENT OF CIVIL AND WATER ENGINEERING

CIVIL ENGINEERING BUSINESS STUDIES II

TCW 5102

Supplementary Examination

July 2017

This examination paper consists of 5 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: None

INSTRUCTIONS

1. Answer any **FOUR** Questions.
2. All questions carry equal marks.
3. Questions can be answered in any order.
4. All **working notes** where necessary must be shown.

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25
TOTAL	100

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QUESTION 1

After a market research, Jamela Ltd has established the following expectations about the rates of return for two assets, Asset X and Asset Y:

Economy	Probability	<u>Annual Rates of Return</u>	
		Asset X	Asset Y
Poor	0.30	14%	26%
Average	0.50	20	20
Good	0.20	28	18

Required:

- a) Calculate the following for each asset:
- i) Expected return **(3 marks)**
 - ii) Variance **(6 marks)**
 - iii) Standard deviation **(2 marks)**
- b) What is the Covariance and Correlation coefficient of the returns of the two assets. **(5 marks)**
- c) If Portfolio XY is formed by investing 40% in Asset X and 60% in Asset Y, calculate the following for this portfolio:
- i) Expected return **(2 marks)**
 - ii) Variance **(4 marks)**
 - iii) Standard deviation **(1 mark)**
- d) How does the risk of Portfolio XY compare with the risks of each of the two assets? **(2 marks)**

QUESTION 2

Explain the information needs of each of the following accounting information users:

- a) Employees **(5 marks)**
- b) Creditors **(5 marks)**
- c) Shareholders **(5 marks)**
- d) Debenture holders **(5 marks)**
- e) Competitors **(5 marks)**

QUESTION 3

The following TrialBalance was extracted from the books of GeorgeLtd as at 31 December 2016:

	\$	\$
Premises (at cost)	143 955	
Motor vehicles (at cost)	16 000	
Plant, equipment (at cost)	8 440	
Provision for depreciation of motor vehicles		2 400
Issued and paid-up capital:		
160 000 ordinary shares @ \$1		80 000
40 000 8% preference shares @ \$1		40 000
P & L Account(1 January 2016)		3 890
General Reserve		12 500
7% Debentures		20 000
Stock (1 January 2016)	24 800	
Bank overdraft		5 876
Cash	779	
Purchases	267 800	
Sales		348 250
Returns	250	800
Wages	32 730	
Rates, water, insurance	1 800	
General expenses	11 268	
Preference dividend paid	1 600	
Debtors, Creditors	31 690	26 972
Bad debts	1 075	
Provision for bad debts		1 560
Discount allowed	<u>61</u>	
	<u>542 248</u>	<u>542 248</u>

Additional details as at 31 December 2016:

1. Stock was valued at \$19 700.
2. Rates pre-paid \$ 500. Wages still outstanding \$1 680.
3. Invoice unpaid for general expenses \$15 .
4. Depreciation: motor vehicles 20% on cost.
plant and equipment 25% on cost.
5. The directors of the company propose a dividend of 10% for ordinary shares. Preference shares to receive their final dividend.
6. Debenture interest is owing as at 31 December 2016.
7. A provision of \$9 600 is to be made for taxation.

Required:

From the information supplied above, prepare the following statements for the reporting period ending 31 December 2016:

- a) Statement of Comprehensive Income, **(11 marks)**
- b) Statement of Changes in Equity **(5 marks)**
- c) Statement of Financial Position . **(9 marks)**

QUESTION 4

PK Ltd has been considering two mutually exclusive projects; Project P and Project K. Details of the projects' net cash flows are as follows:

	Project P	Project K
Year 0	-20 000	-30 000
Year 1	+6 000	+17 000
Year 2	+6 000	+9 000
Year 3	+6 000	+8000
Year 4	+6 000	+7 000
Year 5	+6 000	- 2 000

PKLtd's cost of capital is 12%.

Required:

- a) For each project, calculate the following:
 - i. Simple Payback period. **(3 marks)**
 - ii. Discounted Payback period, **(6 marks)**
 - iii. Net Present Value, **(3 marks)**
 - iv. Profitability Index, **(2 marks)**
 - v. Internal Rate of Return, **(6 marks)**
- b) Which project is preferable? Explain. **(5 marks)**

QUESTION 5

The following figures have been extracted from the budgets of Jaya Ltd:

	Cash sales	Credit sales	Purchases	Salaries	Overheads
	\$	\$	\$	\$	\$
Jun - 2017	-	128 000	96 000	24 000	50 000
Jul - 2017	-	142 000	115 000	25 000	50 000
Aug- 2017	55 000	154 000	120 000	26 200	54 000
Sep - 2017	62 000	138 000	87 000	27 200	54 000
Oct - 2017	45 000	116 000	103 000	33 400	56 000

Additional information:

1. Wages and salaries are paid in the current month.
2. Credit sales are settled as follows: 60% in month of sale, 30% in the next month and 8% in the month following. The remainder of 2% is expected to be bad debts.
3. Creditors give 1 month credit.
4. Overheads are paid 1 month in arrears and include a \$12 000 depreciation charge.
5. A cash balance of \$65 000 is expected at the beginning of August 2017.

Required:

- a) Prepare a Cash Budget for August, September and October 2017. **(20 marks)**
- b) What are the purposes of a Cash Budget? **(5 marks)**

QUESTION 6

- a) Explain the duties of employers towards their employees according to the Labour Relations Act. **(15 marks)**
- b) Explain how a contract of employment may be terminated. **(10 marks)**