Private & Confidential

FACULTY OF BUSINESS

FINAL EXAMINATION

Student ID (in Figures)	:	
Student ID (in Words)	:	

Course Code & Name : **ACC3213 MANAGERIAL ACCOUNTING**
Semester & Year : JANUARY – APRIL 2020
Lecturer/Examiner : JAMES LIOW
Duration : 3 Hours

<u>INSTRUCTIONS TO CANDIDATES</u>

1. **This question paper consists of 2 parts:**
   PART A (50 marks) : Answer ONE (1) compulsory question. Answers are to be written in the Answer Booklet provided.
   PART B (50 marks) : Answer TWO (2) out of THREE (3) problem solving questions. Answers are to be written in the Answer Booklet provided.
2. **Candidates are not allowed to bring any unauthorized materials except writing equipment. Electronic dictionaries are strictly prohibited.**
3. **Only ballpoint pens are allowed to be used in answering the questions.**

<u>WARNING:</u> The University Examination Board (UEB) of BERJAYA University College regards cheating as a most serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students' Handbook, up to and including expulsion from BERJAYA University College.

Total Number of pages = 8 (Including the cover page)

PART A : **COMPULSORY QUESTION (50 MARKS)**

INSTRUCTION(S) : There is **ONE** (1) question in this section. Write your answers in the Answer Booklet(s) provided.

SECTION A

Greatfone Style Limited (Greatfone) commenced trading twelve months ago and as a result of a very successful year is seeking bank finance to expand. The company imports a specialised mobile phone case from an overseas supplier and currently sells it in a limited range of stores in Ireland and the UK. The case is unique in that it comprises a high quality, durable resin and can be adjusted to fit either of the two leading smartphones in the market. Additional bank funding would allow the company to extend its retailer network in the UK with the possibility of establishing outlets in other parts of Europe. However, to consider an application for finance, the bank requires Greatfone to prepare a cash budget, forecasting its receipts and payments for the next six months commencing on 1 May 2020. The company has provided the following information:

(i) Each case will cost $6.20 to purchase from the overseas supplier and the company has agreed to pay 50% of all purchases in cash with the remainder paid in the month after purchase.

(ii) Greatfone will sell the case to retail customers for $11.25 and projects the following sales (in cases) for the next six months:

May	June	July	August	September	October	November
10,000	12,000	15,000	15,000	16,000	18,000	18,000

(iii) To encourage prompt payments from customers, effective from 1 May 2020, the company has decided to give a discount for cash payment for those who paid in the month of sales. Greatfone expects that 20% of all customers will avail of this offer and will receive a discount of 5%. Of the remaining monies receivable, the company expects to receive 50% one month after the month of sale, 45% two months after the month of sale and the remainder will be bad debts.

(iv) To ensure that sales opportunities are not missed, the company will hold inventory at the end of each month amounting to 10% of the following month's projected sales. At 1 May 2020, the company expects to have 1,000 cases in inventory.

(v) Salary and wage costs per month are expected to be $19,000 for the first two months and to increase by $2,000 per month for each of the next four months, as the company hires new staff.

(vi) Administration costs are projected to be $82,200 for the year, including depreciation of $9,900.

(vii) The company has decided to purchase additional computer equipment to support its sales staff. Laptops and printers costing $16,200 will be purchased and paid for in October.

(viii) Greatfone current overdraft facility with the bank only limit to $35,000. In order to ensure sufficient fund in the bank current account and also for the expansion of opening more outlets, Greatfone has projected short term loan of $50,000 to be drawn in June.

(ix) At 1 May 2020, Greatfone projects that it will have the following balances:

	$
Bank overdraft	2,960
Accounts receivable (all amounts to be received in May 2020)	30,980
Accounts payable (due in May 2020)	25,100

Required

a) Prepare a cash budget for Greatfone Style Limited, on a monthly basis, for the six month period commencing 1 May 2020, clearly showing the closing cash balance at the end of each month.

(38 marks)

b) Outline **TWO** (2) benefits of cash budgets. (2 marks)

(Total 40 marks)

SECTION B

Each of the following scenarios is to be treated separately:

Scenario 1

Waymark is a company which makes road signs. It has agreed to supply road signs and, as the company is very busy with other work, it has to decide whether to continue with the contract. The contract is worth $3,000 but the following cost information needs to be considered:

(i) Paint – already in stock, purchased for $600. This type of paint could be bought at a current price of $650 and could be used for other road signs.

(ii) Metal – purchased for $400 but already cut into the right size for road signs. It could be sold to other manufacturers for $250.

(iii) Poles – these were purchased for $225 and made especially for this contract. They would have no resale value or other use.

(iv) Labour – as the company is operating at capacity, they would need to recruit temporary labour, costing $15 per hour for an estimated 50 hours.

(v) If they continue with this contract, they will have to refuse another contract which would make a contribution of $900.

(vi) Management charge – every contract is charged with 15% of its contract revenues to cover management costs.

Required

a) Advise Waymark on whether or not they should complete the contract by calculating the net contribution and in each of the above cost information indicate whether they are relevant cost, sunk cost or allocated cost.

(6 marks)

Scenario 2

Whitewells are a chain of university bookshops with three shops in Oxford, Cambridge and London with a separate Head Office. The management accountant is reviewing the profitability of each shop. The rent and staff costs incurred by each shop and can be saved in the event of closure. Marketing costs are allocated to each shop but would not be saved, if any shop were to close. Head office cost is charged at a rate of 5% of sales revenue.

Bookshops: revenue and cost data			
	Oxford	**Cambridge**	**London**
	$'000	**$'000**	**$'000**
Sales revenue	440	400	700
Costs of goods sold	330	300	525
Rent of shop	10	20	15
Shop staff salaries	75	85	90
Marketing	8	15	10

b) Advise Whitewells whether if any, shops should be closed.

(4 marks)

(Total 10 marks)

[Total 50 marks]

END OF PART A

PART B : **PROBLEM SOLVING QUESTIONS (50 MARKS)**

INSTRUCTION (S) : There are **THREE** (3) questions in this section, answer only **TWO** (2) questions. Write your answers in the Answer Booklet(s) provided.

QUESTION 1

Section A

A company manufactures three products. Selling prices and costs of the three products are as follows:

	Product A	**Product B**	**Product C**
Selling price ($ per unit)	4.80	5.50	7.40
Costs ($ per unit):			
Direct materials	1.40	1.95	2.42
Direct labour	1.20	1.20	1.80
Overheads (fixed and variable)	1.80	1.80	2.70

Fixed overheads total $49,000 per period. Overhead absorption, using direct labour hours, is based upon the following production and sales volumes per period which reflect current sales demand:

Product A	8,000 units
Product B	12,000 units
Product C	10,000 units

The company is currently experiencing a shortage of direct labour and estimates that availability will be restricted to 6,200 hours per period. All direct employees are currently paid at a rate of $6.00 per hour.

Required

a) Explain the term limiting factor and its significance to a business. (2 marks)

b) Determine how the available direct labour resource should be allocated to each of the products in order to maximise profit and prepare the optimum production schedule. Show the workings clearly. (13 marks)

(Total 15 marks)

SECTION B

A company is considering investment in a project to enable the manufacture and launch of a new product. The investment, all payable at the start of the project, would be $960,000. The project would have a life of 8 years with no terminal value. Annual profit (after depreciation) from the project is estimated to be $115,000.

Present value of $1.00:

Discount rate	Year								Annuity for 8 years
	1	2	3	4	5	6	7	8	
8%	0.926	0.857	0.794	0.735	0.681	0.630	0.583	0.540	5.747
14%	0.877	0.769	0.675	0.592	0.519	0.456	0.400	0.351	4.639
20%	0.833	0.694	0.579	0.482	0.402	0.335	0.279	0.233	3.837

Required

a) Calculate, in relation to the investment project:
   (i) Payback period
   (ii) Accounting rate of return on the average investment (4 marks)

b) Calculate, in relation to the investment project:
   (i) Net present value at a discount rate of 14%
   (ii) Internal rate of return (to the nearest %) (6 marks)

(Total 10 marks)

[Total 25 marks]

QUESTION 2

Door Dezigns Limited manufactures high quality oak doors from reclaimed wood. The company is based in Wicklow and was founded in 1999. Previously the company experienced strong growth and made significant profits but this changed during the recent recession when the company almost went out of business. In the past two years, Door Dezigns Limited has seen an increase in its business and based on the company's prior experience, the directors are keen to ensure that costs are tightly controlled. The company operates a standard absorption costing system.

The following details relating to the most recent financial period are available:

Standard cost card for one oak door:	**$**	**$**
Direct materials:		
- reclaimed oak: 1.75 square metres @ $22.00 per square metre	38.50	
- Oak dowels: 16 dowels @ $0.25 each	4.00	42.50
Direct labour : 0.75 hours @ $20.00 per hour		15.00
Variable production overhead: 0.75 hour @ $4.60 per direct labour hour		3.45
Fixed production overhead: @ $5.10 per door		5.10
Total		**66.05**

The company budgeted to produce 10,000 oak doors during the period.

Actual results from production of 9,500 oak doors:	**$**	**$**
Direct materials:		
- reclaimed oak (17,100 square metres)	375,345	
- Oak dowels (159,600 dowels)	41,496	416,841
Direct labour (6,650 hours)		139,650
Variable production overhead		29,925
Fixed production overhead: @ $5.10 per door		50,100
Total		**636,516**

Required

a) Prepare a cost statement showing the original budget, flexed budget and actual results.

(9 marks)

b) Calculate the following production cost variances for the period:

(i) Direct material price (for each material)
(ii) Direct material usage (for each material)
(iii) Direct labour rate
(iv) Direct labour efficiency
(v) Variable production overhead expenditure
(vi) Variable production overhead efficiency
(vii) Fixed production overhead expenditure
(viii) Fixed production overhead volume

(12 marks)

c) Outline **TWO** (2) possible reasons to explain the direct labour variances that you have calculated at (b) above.

(4 marks)

[Total 25 marks]

QUESTION 3

Mr Green, a sole trader, has been asked by his bank to provide detailed budget projections for the year ahead and he has provided you with the following information:

	Product Alpha	**Product Beta**
Sales Forecast:		
Quarter 1	10,000 units	2,000 units
Quarter 2	10,000 units	5,000 units
Quarter 3	10,000 units	5,000 units
Quarter 4	10,000 units	8,000 units
Sales price per unit	$35.00	$50.00
Production Costs:		
Material A ($3.00 per kg)	0.75kg per unit	4kg per unit
Material B ($2.00 per kg)	1kg per unit	2kg per unit
Direct Labour:		
Department 1 ($12.00 per hour)	15 mins per unit	30 mins per unit
Department 2 ($10.00 per hour)	1 hour per unit	1 hour per unit

Stock Holding – Finished Goods:		
Opening inventory (Quarter 1)	5,000 units	2,000 units
Required closing inventory (Quarter 4)	2,500 units	1,000 units

Other information:

(i) There is no opening or closing inventory of materials held.

(ii) Production is assumed to be even across the year.

(iii) Other factory overhead costs per annum consist of the following:

- Supervisory wages $42,000
- Heat, light and power $90,000
- Maintenance of equipment $25,000
- Depreciation of equipment $84,000

(iv) General business overheads of $350,000 are also anticipated.

Required

a) Prepare the following budgets for the year:

(i) Sales budget (quarterly basis for each product; in units and $)

(ii) Production budget (yearly basis for each product; in units and the amount of quarterly production units)

(iii) Direct material budget (for each direct material and in total)

(iv) Direct labour cost budget (for each department and in total)

(17 Marks)

b) Draft a budgeted profit or loss account for the year. (8 Marks)

[Total 25 marks]

END OF QUESTION PAPER