UNIVERSITY OF JOHANNESBURG

Department of Commercial Accounting

Cost and Financial Management 2B

CFM22B2 / CFM2BB2

LAST ASSESSMENT OPPORTUNITY

18 NOVEMBER 2017

Time: 180 minutes **Marks: 100**

Assessors: Mrs J West Mrs M Vermaak
Mr D Du Plessis Mrs M Nevhutanda

Moderator: Mrs P Ramutumbu (Internal)

INSTRUCTIONS:

- This paper consists of 8 pages (including the cover page)
- Answer all questions. Show all formulae, calculations and workings clearly.
- Please start each question on a new page.
- Silent, non-programmable calculators may be used.
- Where applicable, round all calculations to **two decimal** places, unless stipulated otherwise.

Question		Topic		Marks		Time
1		Direct and Absorption costing		20		36 Minutes
2		Joint and by-products		20		36 Minutes
3		Process costing		40		72 Minutes
4		Job Costing		20		36 Minutes
				100		**180 Minutes**

QUESTION 1	**20 MARKS**

Band (Pty) Ltd manufactures one type of product. The organisation uses a variable costing system for both internal and external reporting purposes. Fixed manufacturing overheads are absorbed on the basis of units produced, using a predetermined overhead rate of R18 established at the beginning of the organisation's financial year.

You have been recently appointed as the management accountant and presented with the following information:

1 The manufacturing overheads for the three-month period were as follows:

	June	**July**	**August**
Unit produced	13 000	16 000	22 550
Closing inventory	500	850	?

2 The actual production and other costs for July were as follows:

Direct labour	(2hrs x R20/hr)	R40
Direct material	(2 kg x R15/kg)	R30
Manufacturing overheads	(variable and fixed)	R?
Total production cost		R125
Variable marketing cost	(Per unit sold)	R10
Variable administration cost	(Per unit sold)	R50
Total cost		R185

3 The selling price per unit for July was R220. During August, variable administration cost will increase by 5%, marketing cost will be 10% lower than before and direct material cost will increase by 15%. As a result of these changes, the selling price per unit will increase by 10%. During August, we sold 16 500 units.

4 The fixed manufacturing overheads incurred in each month were as follows:

	July	August
Fixed manufacturing overheads	R300 000	R400 000

REQUIRED

1.1 Calculate closing inventory for the month of August. **(1)**

1.2 Calculate the total variable manufacturing overhead cost per unit for July and August. **(6)**

1.3 Compile income statements for August 2017, using the direct costing method. **(10)**

1.4 Reconcile the difference in profit (if any) between the two methods for August if net income for the Statement of Comprehensive Income using the absorption costing method is R1 370 975. Opening balance of R106 250 and closing balance of R893 550. **(3)**

QUESTION 2 **20 MARKS**

Rainbow Pigs provides various pork products to butchers in the Johannesburg area. The business is focused on curing and smoking meat, their speciality is: smoked ham and bacon. The meat that is not used for ham and bacon are packed per cut. The joint production cost is a variable cost of R55 per kilogram produced. The pigtails and bones are sold as by-products. The income generated will be used to reduce joint cost. The bacon and smoked ham need further processing, the cost per kilogram is R20, irrespective of the product. Meat is packed and sold at split off point.

The following information was made available for September 2017.

Product	Opening Balance	Closing Balance	Production	Kilograms sold
Smoked ham	3 500	?	6 710	8 760
Bacon	3 150	2 550	3 380	?
Meat	?	750	5 545	5 708
Pig tails and bones				1 250

The selling price of smoked ham is R105 per kilogram, bacon is R95 per kilogram, and meat is sold at R80 per kilogram. Rainbow pig received R21 280 during the month for the pigtails and bones.

The total value of opening balance WIP is R236 250 for smoked ham, R204 750 for bacon and R45 650 for meat. A FIFO inventory valuation method is used.

REQUIRED:

2.1 Determine the unit flow of the products. **(3)**

2.2 Allocate the joint costs to the joint products according to the relative market value at split-off point **(10)**

2.3 Calculate the gross profit and gross profit % for smoked ham, if the market value at split-off point is used to allocate joint cost. **(5)**

2.4 Rainbow Pig has to do maintenance work on the smoking section of the process. They will only be able to produce bacon or smoked ham for the next 6-8 weeks. Assume the Sales for Bacon was R378 100 during September 2017 and the cost of sales was R258 700. **(2)**

Which product (smoked ham or bacon) should they keep during this period? Motivate your answer with calculations.

QUESTION 3	**40 MARKS**

Tru-Cape Limited manufactures Apple and Pear juice in two consecutive processes using the FIFO method of inventory valuation.

The process starts in the processing department where the fruit pulp is added evenly from 0% to 50% of the process. The pulp is then pressed, and all the solids are drained off. The fruit juice goes through a process of moisture reduction before the sweeteners are added at 75% of the process. During the moisture reduction process 4% off the mixture is lost. This loss is detected when the process is 60% complete. The mixture is cooled and put in holding tanks in preparation for the bottling process.

In the bottling process the mixture is heated to UHT temperatures to sterilize the concentration before being bottled in 500ml bottles at 25% of the process. The bottles are then fed through the cooling process before being capped when the process is 75% complete. The bottles go through a final inspection for leakages. Labels are added when the process is 80% completed before being sent off to the packaging department. All conversion costs are incurred uniformly throughout the processes.

The following relates to the activities for August 2017:

Units	**Mixing Process**	**Bottling process**
Beginning WIP	15 000 litres (65%)	12 000 bottles (45%)
Total loss	3 500 litres	0
Ending WIP	16 000 litres (30%)	7 000 bottles (40%)
Completed and transferred	65 000 Litres	??? Bottles

Cost (R)	**Mixing Process**	**Bottling process**
Beginning WIP:		
Cost transferred from Mixing Process	-	R7.25 per bottle
Fruit pulp	R154 800	
Sweeteners	R 24 000	-
Bottles	-	R7 200
Caps	-	-
Labels	-	-
Conversion costs	R45 000	R7 020
Costs added during March:		
Costs transferred from mixing process		R7,50 per bottle
Fruit pulp	R5 857200	-
Sweeteners	R1 002 000	-
Bottles	-	R84 500
Caps	-	R27 000
Labels	-	R20 250
Conversion costs	R2 677 400	R178 740

REQUIRED

3.1 Prepare following parts of the cost and production statement for the mixing process.

3.1.1 Step 1: Timeline and flow of units (Clearly show all calculations) **(7)**

3.1.2 Step 2: Equivalent units **(8)**

3.2 Prepare the cost and production statement for the Bottling process.
(Hint: Do the 5 Steps) **(23)**

3.3 If we pack the bottles in packs of 6, how many packs will we receive in the packaging department? **(2)**

QUESTION 4	**20 MARKS**

Happy Weddings Ltd provide planning, venues and catering services for various celebrity weddings across the whole country. Each wedding is unique and seen as a separate job with its own costs allocated to it. The predetermined overhead recovery rate is based on prime cost.

During October, Happy Wedding had the following budgeted information available:

Manufacturing Overheads	R2 250 000
Direct Material	R800 000
Direct Labour	R700 000

Total actual costs incurred thus far for the current weddings are as follows:

Wedding Name	Direct Material	Direct Labour	Manufacturing Overheads
McKenzie	R470 000	R330 000	R1 200 000
Naidoo	R380 000	R280 000	R1 100 000

At the start of October the McKenzie Wedding already incurred R70 000 in costs. This was made of R20 000 direct material, R20 000 direct labour and R30 000 manufacturing overheads. Both the McKenzie wedding and Naidoo wedding took place in October. The McKenzie wedding was charged to the client for R2 500 000, while the Naidoo wedding was charged to the client for R2 000 000.

REQUIRED

4.1 Calculate the predetermined overhead recovery rate for Happy Weddings Ltd. **(2)**

4.2 Prepare a Job cost card for Job Naidoo. **(4)**

4.3 Prepare the work in process account for Job McKenzie and the total manufacturing overhead control account. **(10)**

4.4 Calculate the total profit for Happy Weddings Ltd. **(4)**