



University of Fort Hare  
*Together in Excellence*

**NKUHLU DEPARTMENT OF ACCOUNTING  
ADVANCED DIPLOMA IN ACCOUNTING  
FINANCIAL MANAGEMENT  
AFC301E**

**ASSESSMENT OPPORTUNITY 4  
NOVEMBER 2019**

**ASSESSORS:** Ms Esther Mason

**MODERATORS:** Prof. Gillian Bartlett (Internal)  
Ms Joné Pienaar (External)

**TIME:** 4 hours (plus 30 minutes reading time)

**MARKS:** 160

**PAGES:** 8 pages (including front page, worksheets and notes page)

**INSTRUCTIONS:**

1. Answer all the questions.
2. Start each question on a new page.
3. Show all workings clearly – marks are allocated to workings.
4. Only answers in ink will be marked (including workings). Pages where pencil or tippex were used will not qualify for remarking.
5. Only silent, non-programmable calculators are allowed.
6. Students that contravene the rules in the General Prospectus of the University of Fort Hare will be disciplined in accordance with said rules.

Question	Topics covered	Marks	Minutes
1	Various topics	160	240
	<b>TOTAL</b>	<b>160</b>	<b>240</b>

This page is provided for you to make notes on during reading time. It is NOT to be handed in and it must therefore not form part of your final solution.

## Question 1

Floating Kayaks Ltd, ('FK') has a manufacturing plant in East London and is a world leading manufacturer and distributor of Kayaks. FK originates from humble beginnings, and through dedication and hard work by the founder, Mr Waters, the company has grown to be a world leader. When Mr Waters left school, he took a position as a life guard on a local East London beach. There were many periods when there were no swimmers and Mr Waters began carving moulds out of the sand and developing his design from there. He had an exceptional ability to understand water flow and craft stability and it was not long before his friends began commissioning (ordering) kayaks from him. His business soon outgrew the capacity his garage offered and he hired a factory workspace and began employing staff. Mr Waters listed FK on the JSE ten years later, but always retained 55% of the ordinary shares in his company. Mr Waters has never employed an engineer to assist in his designs, but has continually improved on each design. With each new design, he registers a patent over the design to protect his intellectual property. The world leading professional paddlers only use FK designed boats, and Mr Waters ensures that they receive a complimentary kayak every time he produces a new boat.

Kayaking is a sport where individuals can paddle their kayaks (boats), either on their own or in pairs on rivers, dams or in the ocean. Over the last twenty years kayaking has become a very popular sport worldwide, especially in coastal towns where moderate weather is experienced, and East London is no exception. FK has experienced exceptional growth from its incorporation 30 years ago, however the market has reached saturation and growth is expected to continue at a rate of 4% per annum going forward from 2019. The sector has a price earnings ratio of 6.

There are two main players who dominate the kayak market, FK who have 44% of the total market share and Epical Kayaks ('EK'), who are based in the UK make up 40%. The remaining 16% of the market consist of small manufacturers, with China trying hard to make inroads into the market.

The process for manufacturing kayaks is relatively straight forward. Carbon fibre cloth is used to line a mould. This cloth is then painted with resin, which is left to dry over a period of four hours. This process is repeated three times to ensure that the kayaks are completely waterproof. Ridges are built into the boats design to give it structural integrity, however there is a trade-off between strength and weight. The kayaks need to be a light weight to be able to obtain maximum floatation and speed for racing. Once the outside of the kayaks has been built, work on the internal process can commence. In the final step, a seat is fitted with a steering gear which is operated by one's feet. FK's manufacturing plant can produce 90 000 units in total annually with their current staff and mould compliment. The production capacity has remained consistent over the last five years.

FK produce two different types of kayaks. A Single Model ('SM') which is designed for one person to paddle and a Double Model ('DM') which is designed for two people to paddle in. It is the company's policy to only make the Double Model when they are ordered, and the order is completed and dispatched within the same month as the order, however they budget to always hold 500 units of the Single Models on hand. The cost for the seat and steering gear is the same for both models.

The standard input production budget for each model was as follows for 2019:

Input details	Single Model	Double Model
Annual budgeted production	45 000 units	35 000 units
Carbon fibre cloth and resin	8 kg per unit	15 kg per unit
Seat and searing gear	1 unit	1 unit
Direct labour	6 hours per unit	8 hours per unit
Closing stock	500 units	0 units

**SUMMARISED INCOME STATEMENT FOR THE YEAR ENDED JUNE**

	Notes	Actual 2019 '000	Budgeted 2019 '000	Actual 2018 '000	Actual 2017 '000	Actual 2016 '000
<b>Sales</b>	1	<b>583 600</b>	<b>580 000</b>	<b>520 904</b>	<b>436 939</b>	<b>376 237</b>
SM		266 800	247 500	229 448	195 031	165 776
DM		316 800	332 500	291 456	241 908	210 460
<b>Cost of sales</b>		<b>314 154</b>	<b>317 556</b>	<b>280 195</b>	<b>235 313</b>	<b>201 968</b>
Opening inventory (2019: 540 units)		1 658	1 535	1 719	1 627	1 627
Carbon fibre and Resin	2	244 563	247 800	222 553	186 944	157 033
Seats and rig- gear		32 643	36 000	26 441	21 417	21 417
Manufacturing overheads – SM	3	5 339	4 928	4 699	4 370	4 064
Manufacturing overheads - DM	3	3 901	4 025	3 316	3 017	2 746
Labour	4	27 531	24 750	23 126	19 657	16 709
Closing inventory (2019: 540 units)		-1 481	-1 535	-1 658	-1 719	-1 627
<b>Gross profit</b>		<b>269 623</b>	<b>262 498</b>	<b>240 709</b>	<b>201 626</b>	<b>174 268</b>
Administration expenses	5	2 690	2 690	2 233	2 233	10 750
Interest expense		4 500	4 500	4 500	4 500	4 500
<b>Profit before tax</b>		<b>262 256</b>	<b>255 254</b>	<b>233 976</b>	<b>194 893</b>	<b>159 018</b>
Tax at standard rate		73 550	71 471	65 513	54 570	44 525
<b>Net profit after tax</b>		<b>188 706</b>	<b>183 783</b>	<b>168 463</b>	<b>140 323</b>	<b>114 493</b>

## Notes to the summarised income statement:

### 1) Sales:

Sales comprise of revenue generated from the sale of both SM and DM. During 2019, 46 000 units of SM and 32 000 units of DM were sold. The sales and marketing manager is of the opinion that the selling price budgeted for in 2019 would be appropriate to use for 2020 because of the market saturation and low barriers of entry for competitors.

### 2) Carbon fibre and resin:

The carbon fibre and resin are purchased together from the same supplier and come as a set. The required amount of resin is packaged with the carbon fibre. During 2019, 829 000kg of carbon fibre and resin were purchased for the construction of both SM and DM. The carbon fibre and resin component is imported from Germany. Even though German products are not the cheapest internationally, they are of superior quality which is critical to FK's reputation as world leader in quality kayaks.

### 3) Manufacturing overheads:

The following information was made available with reference to budgeted manufacturing overheads for 2019:

Number of SM's produced	SM's total manufacturing cost	Number of DM's produced	DM total manufacturing cost
45 000 units	R 4 927 500	35 000 units	R 4 025 000
55 000 units	R 5 457 500	45 000 units	R 4 645 000

While fixed manufacturing overheads are a small part of overall expenses, the company policy is to expense fixed manufacturing overheads as a period cost, and variable costs are allocated per unit of input. Actual fixed manufacturing overheads was R 2 655 500 for SM and R1 643 000 for DM for 2019.

### 4) Direct labour:

Direct labour relates to staff working on producing both SM and DM. Total actual hours worked during 2019 were 671 500 hours. During the budget preparation process, the union agreed to R45 per hour payable to workers for year 2019. Direct labour is considered to be a fixed cost for short-term decisions.

### 5) Administration expenses:

Administration expenses have been increased and accurately budgeted for and actual expenses maintained for each year from 2017. The inflated administration expenses in 2016 relates to legal costs to register a 5-year patent (commencing in 2016) over their mould design. If this had not been undertaken, the 2016 administration expense would have been the same as 2017. This was successfully undertaken to place FK as the world leader kayak distributor.

Included in administration expenses is director's remuneration. The auditors of FK were not prepared to accept this, however Mr Waters insisted that his salary be left in

administration costs as he was administering the company even if it resulted in a qualified audit opinion. Mr Waters did not want to 'upset' the other shareholders by highlighting that his salary was R1 000 000 higher than a market related rate. Mr Waters argued that this inflated amount was justified as he was performing the work of an engineer, who would reasonably earn R1 000 000 per annum.

The statement of financial position is presented below:

	Notes	2019 R'000	2018 R'000
<b>ASSETS</b>			
Non-current assets			
Property, plant and equipment	1	651 365	617 463
Current assets			
Inventory	2	1 903	1 658
Accounts receivable		86 000	35 500
Cash and cash equivalents		50 130	24 390
		<u>789 398</u>	<u>679 011</u>
<b>EQUITY AND LIABILITIES</b>			
Shareholder's equity			
Share capital	3	30 000	30 000
Retained profit		642 831	530 000
Non-current liabilities			
Preference shares	4	12 500	12 500
Non-current liabilities	5	30 000	30 000
Current liabilities			
Accounts payable	6	39 500	41 531
Taxation		34 567	34 980
		<u>789 398</u>	<u>679 011</u>

Notes to the statement of financial position and other supplementary information:

1) **Property, plant and equipment**

Property, plant and equipment comprises of equipment used to manufacture the kayaks. This equipment has not been replaced for a number of years and is fully depreciated. Mr Waters is of the opinion that "if it isn't broken, don't try to fix it!" It has been giving a few minor problems over the recent years, but constant maintenance can ensure that it will continue to work efficiently.

The property comprises of the manufacturing warehouses, storage garages and the administration building. All commercial property is stated at fair value. A revaluation by a sworn appraiser was performed on 30 June 2019.

## 2) Inventory

Inventory is valued on the standard costing system using the FIFO basis.

## 3) Share Capital

Authorised – 8 000 000 shares of R10 each  
Issued - 3 000 000 shares of R10 each

The company has a dividend payout ratio of 40%. A dividend of R25 has been declared for 2019, which will grow at 4% per annum. At 30 June 2019, the shares were trading at R250 per share.

## 4) Preference Shares

25 000 7% irredeemable preference shares of R500 each.  
The preference shares have no conversion rights. Preference shares with similar terms require a return of 8%.

## 5) Debentures

60 000 15% Debentures of R500 each.  
The debentures are secured by a first mortgage bond over free hold property.  
The debentures will be redeemed in 4 years' time at par.  
The current interest rate on similar debentures is 13% per annum.

## 6) Trade payables

40% of trade payables offer FK terms of 2/10 net 30. These terms are favorable and FK use their surplus cash resources to take advantage of this discount. The remaining 60% of trade payables do not offer FK any form of discount, and as such FK have negotiated favorable settlement periods as compensation for not being offered any discounts. The remaining 60% therefore form part of permanent capital structure and FK have used these creditors to assist in financing operations.

## NEW MACHINE – REPORT OF THE OPERATIONS MANAGER:

At a recent management meeting, the operations manager presented a report which he had prepared on new technology which had recently become available in the market. He indicated that this new technology would however be limited for operations for the Single Model production line.

The operations manager's report included the following salient points:

- The new machine process could be purchased in 2019 and commence operations in 2020.
- The machine would cost R20 000 000 (R20 million) and would have a useful life of four years, and would have no scrap value.
- The new machine would make use of a fibre glass composite, this would replace the carbon fibre and resin and would result in a saving of 20% on the budgeted cost.
- The labour costs would be reduced by 30% which would result in further long term saving as, even though there is no increase in labour costs in 2020, the costs were set to increase by 15% from the rate agreed with the union in 2021, and a further 8% per year from 2022 – 2023.
- All other variable costs will remain constant.

- The machine will produce 50 000 units of SM per annum, which is consistent with the manual production targets over the same period.

He also indicated that the kayaks would be lighter than they currently are, which would be a big bonus for the professional racers. He did however indicate that there would be a slight reduction in the quality and the finishes, but he reassured the management team that he had conducted research at a cost of R750 000 which indicated that the professionals would accept as a trade-off for the lighter kayak.

The operations manager did recommend, that should the new machine be purchased, a once off advertising promotion be undertaken in the first year of production, at a cost of R4 000 000 to inform the public of the new light weight kayak. The committee agreed with this suggestion. The committee also agreed that there would be no change to the selling price of the SM kayaks.

SARS will allow a section 12C allowance on the machine, the applicable rates: 40% in year 1, 20% in year 2, 20% in year 3 and 20% in year 4.

A tax rate of 28% is applicable to FK.

Image of a single model kayak:

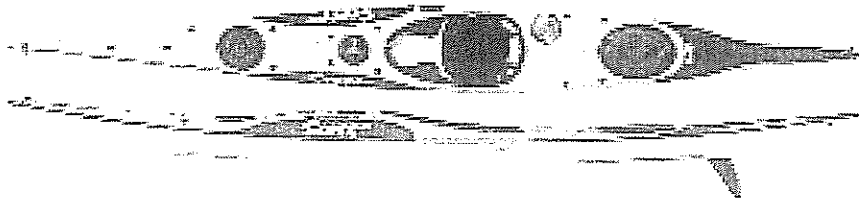


Image of a double model kayak:



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