Part (a)	**Calculate, with supporting reasons, the minimum price that the Paper Division should charge for the special order in FY2019** **Assume that the Paper Division purchases all the wood pulp it requires for the special order from the external supplier**		**Marks**
	R	**R'000**	
Incremental costs			
Variable costs excluding the cost of wood pulp	925		1
Total costs varying with output (75 000 tonnes)		69 375	1C
External cost of wood pulp		525 000	1
Cost of paper for recycling		22 500	1
Machinery costs ((R75m – R7,5m) / 5 years)		13 500	1
Increase in repairs and maintenance (calc 1)		6 500	
Opportunity cost of forfeiting fixed cost savings		25 000	1
Total cost		661 875	1C
Mark-up (R661 375 x 25% / 75%)		220 625	
Minimum price to charge		882 500	1P
Calculation 1 – increase in the cost of repairs and maintenance			
Comment: from an interrogation of the changes in costs between the 100 000 and 200 000 tonnes of paper produced, and similarly the 200 000 and 300 000 range, it is clear that the stepped fixed cost increase occurs where the paper production volume exceeds 300 000 tonnes. The special order will result in 333 000 tonnes of paper being manufactured in FY2019.			1
	R	**R'000**	
Existing cost structure			
Change in rand		5 000	
Change in volume		200 000	
Variable cost per unit	25		1
Fixed cost		10 500	1C
New total cost		27 000	
Less variable portion		(10 000)	1C
Less existing fixed costs		(10 500)	
Incremental fixed costs		6 500	1C
		Available	**13**
		Maximum Total for part (a)	**13**

 © SAICA 2018

Part (b) **Recommend a range of transfer prices between the Pulp and Paper divisions, assuming that the Paper Division negotiates a price of R11 500 per tonne for the special order in FY2019 and sources all the wood pulp required for the special order from the Pulp Division,**			**Marks**
		R'000	
As the Pulp division only has 84 000 tonnes of spare capacity, a shortfall of **21 000 tonnes** will arise. A decision will need to be made regarding whether external pulp sales or external paper sales will need to be sacrificed, before setting the range of transfer prices.			1
Sacrifice external pulp sales: Contribution lost per tonne of pulp (6 500 – 2 375)	**R4 125**	86 625	1
Sacrifice external paper sales: Paper sales sacrificed (tonnes)	10 500		
Revenue			
Less:	R15 000	157 500.0	1
Pulp division costs (R2 375 x 2 x 10 500 tonnes)	-R4 750	-49 875.0	1
Paper division costs (R625 x 10 500 tonnes)	-R625	-6 562.5	1
Contribution lost per tonne of pulp (÷21 000 tonnes)	**R4 813**	101 062.5	1
Sacrificing external paper sales would have the biggest negative impact on Izinkuni. As a consequence, external pulp sales should be sacrificed.			1
		R'000	
Minimum price (***sacrificing external sale of pulp***)			
Wood pulp			
Incremental variable costs (R2 375 x 105 000)		249 375	1P
Opportunity cost (contribution lost)		86 625	1P
Production that needs to be sacrificed	21 000		
Contribution lost per tonne of pulp (6 500 – 2 375)	4 125		
	R3 200	336 000	
Maximum price			
Revenue	**R11 500**	661 875	1
Less: converting pulp to paper (R661 875k-R525 000k)		-136 875	2.5C
	R6 518	525 000	1C
Maximum negotiated price (limited to)	**R5 000**	525 000	1C
Range of transfer prices is	**R3 200**	**R5 000**	1C
		Available	**15.5**
		Communication skills – presentation and layout	*1*
		Maximum Total for part (b)	**12**

© SAICA 2018

Part (c) Discuss the key factors that the management team of Izinkuni should consider in evaluating the potential special order.	Marks
1. What price is the customer likely to accept given a R15 000 normal selling price?	1
2. Could this be an avenue into which Izinkuni could expand its market share in the paper industry and grow its profits?	1
3. How does this align with the company's overall strategy?	1
4. Increasing the recycled paper content would increase the company's efforts to be a responsible corporate citizen.	1
5. An NPV analysis needs to be done given that the special order will span five years.	1
6. A risk-adjusted rate should be applied when determining an NPV given that the product is different but furthermore a fixed 5-year contract is being entered into.	1
7. How will the investment be financed? Does Izinkuni have access to financing?	1
8. If asset specific financing is used then the benefit which will arise from the financing should be calculated an added to the NPV of the investment decision or an adjusted present value (APV) should be calculated,	1
9. Given the long-term nature of the contract, it may be worthwhile for Izinkuni to increase the Pulp Division's capacity.	1
10. Purchasing the pulp externally will be more expensive for the company, but negative impacts of having to sacrifice external pulp sales will be avoided.	1
11. What reputation does the customer have? Consider association risk?	1
12. Will credit be granted and if so, is Bongo creditworthy?	1
13. If credit is granted to Bongo, what will the credit terms be and what will the cost of financing be for Izinkuni?	
14. The annual renegotiation of price over five years is a positive feature associated with the conclusion of the contract as a price increase can be taken into account.	1
15. Has Izinkuni considered all additional costs (or are the current estimates reliable)?	
15.1. Is additional training needed on the new machinery or is new staff needed?	1
15.2. Are there other potential profitable opportunities for using the Office Division's spare capacity that need to be incorporated as an opportunity cost?	1
16. Five years is a long time to be committed to a contract:	
16.1. What if more profitable opportunities arise in the future?	1
16.2. Does Bongo have the ability to honour its commitment to such a large order over five years?	1
16.3. There are no absolute figures confirmed for the years beyond the first year, which could result in future losses if not all costs can be passed on.	1
17. Is there a source of recycled paper? Is there market for the sale of the de-inking equipment?	1
18. There is a risk that existing customers may also request a reduction in prices.	1
19. Will quality inspections be required to ensure the correct recycled paper content and what will the cost thereof be?	1
20. Will Izinkuni be able to access a sustainable supply of pulp over the 5-year period at a discounted price?	1
21. Given the migration to electronic media and the negative impact thereof on paper, entering into a 5-year contract will reduce Izinkuni's business risk given that the use of the available capacity ensures a stream of revenue for this period for the company.	1
22. The impact on the employees (fatigue) and machinery (potential downtime) of working at practical capacity for the entire 5-year period.	1
Available	**25**
Communication – clarity of expression	*1*
MaximumTotal for part (c)	**16**

© SAICA 2018

Part (d) Critically evaluate Izinkuni's current staff incentive scheme	**Marks**
1. No mention is made of an incentive scheme for the Support Division staff. It is likely to be not motivational for these staff members.	1
2. Any discretionary bonuses would be prone to bias and questions around the fairness of the bonuses.	1
3. The percentages used to calculate the amount of the bonus pool(s) appears to be arbitrary.	1
4. The scheme does not take opportunity cost (for example of forfeiting fixed cost capacity savings) into account.	1
5. It only takes a single financial measure into account, which will result in financial performance being pursued at the expense of all other strategic objectives.	1
6. To address this inherent problem, a mix of both financial and non-financial key performance indicators need to be measured and weighted in determining the overall performance of each division.	1
7. Basing the bonus on operating profit will provide divisional managers with an incentive to manipulate the profit figures (e.g. deferring fixed manufacturing costs in the short term by increasing production and/or not incurring discretionary costs such as R&D, training costs etc.).	1
8. Divisional operating profit correctly excludes the support divisional costs over which the divisional managers have no, or little, control. Conversely, the corporate profit before tax figure does not exclude these uncontrollable costs which would be problematic from a divisional perspective.	1
9. Including a percentage of company profit will help to limit dysfunctional behaviour as divisional managers will be encourage to work as a team with other divisional managers to exceed the company budget.	1
10. The bonus calculation is only based on the current year's profit and therefore has a short-term focus.	1
11. To shift the focus more to the long-term, share options or a bonus bank system could be considered.	1
12. The Pulp Division's manager shows bad decision making by insisting on the full market-related transfer price, which prejudices the performance of the Paper Division's manager.	2
13. The autonomy given to the divisional managers encourages entrepreneurial flair, but it could lead to decisions made in the best interest of the division and not the company as a whole, such as for example suggesting the purchase of pulp externally at a higher cost than the company's incremental cost.	2
14. The company enjoys a full tax deduction on the payment of the bonus.	1
15. The scheme may not be more tax beneficial for the employees as it is fully paid in cash. 16. The divisional managers will not likely have any control in terms of the choice of accounting policies – this will impact on divisional profit being measured. 17. Using operating profit does not reward divisional managers for the effective use of the asset base of the division in generating returns. As an alternative, a return on asset measure should be considered.	1 1 1
Available	**19**
Maximum	**11**
Communication skills – logical argument	*1*
Total for part (d)	**12**

© SAICA 2018