Part (a)	**Critically discuss the factors that Kidzo should consider before taking the strategic decision to shift from being a retailer of babies' and children's clothes to a manufacturer of hand sanitiser.**	**Marks**
1.	The company is in **distress, with supplier problems, demand issues**, the competitive environment and exchange rate issues making the existing business unattractive.	1
2.	Consideration of an **alternative use of resources** at this time would make sense given the severe restrictions on sourcing key inputs (which are currently imported).	1
3.	However, consideration has not been given to how competitors in the company's **existing markets** may respond. In addition, the planned expansion does not align with the company's **core values and vision statement** and could lead to a loss of focus	1 1
4.	The company **does not have expertise** in the chemicals industry, or in bottling plant maintenance, increasing the risk.	1
5.	The bottling plant in particular will require staff to be **retrained**, as it will require significantly different skills to clothing. Are employees, who may be specialists, willing to learn new skills, and will they have an aptitude for the tasks?	1
6.	**Health and safety considerations** are also significant when switching to a flammable product, and it may have been underestimated.	1
7.	**Special storage facilities** and other measures would probably be necessary for the flammable base.	1
8.	This represents a **drastic change** for the company, especially as it requires a **large investment** (current manufacturing setup would have to be changed), and will therefore likely require shareholder (and potentially creditor) approval.	1
9.	There are **low barriers to entry** for the **hand sanitiser market**, and it is easy to make. There is therefore a risk that the envisaged market will be smaller because major competitors in this market might retaliate – and charge lower their prices, since they already have the economies of scale advantage and can cut them out of the market in this manner. .	1
10.	The change may also affect the **company's reputation**, its standing in the clothing industry, long-term growth, risk assessment, etc. It is a completely different industry the company is trying to access.	1
11.	These changes will **affect the company's WACC** as well, and it might have to re-think its optimal capital structure. Higher financial risk due to increased debt levels which takes the company even further away from their target debt: equity ratio of 50:50.	1
12.	The chemical industry would have multiple **compliance regulations** of which the company may not be aware and therefore may contravene, and they may be costly to implement. Products may need to be registered and comply with health care regulations.	1
13.	It is not clear how easy it will be to **revert to the original business** case after a few years, given the loss of the key supplier and potential costs of re-establishing market positioning once the business returns to clothing.	1
14.	The Kidzo **brand is not known** in the hand sanitiser market, and no provision is made for **marketing** – what would give Kidzo a competitive edge?	1
15.	Can Kidzo not **simultaneously produce both** sanitiser and clothing? Should it consider a smaller initial investment in hand sanitiser whilst retaining the existing clothing business?	1
16.	How does the proposed shift in business model impact (detract, remain the same or enhance) Kidzo's **social responsibility (e.g. retaining jobs/ environmental impact**?	1

17.	How **reliable are the forecasts**. Consider using sensitivity analysis. Consider the use of consultants/specialists to assist in analyzing the cash flow forecast.	1
18.	Can Kidzo use the **same delivery trucks** (through Truckit) for deliveries, or must special trucks (e.g. with cooling facilities) be acquired/contracted?	1
19.	Will the **supervisor** be willing to work at **50%** of his existing salary (especially as he now has to supervise a production line he does not know) or would he prefer to leave? Can the company survive without a supervisor, especially when staff also do not know the processes?	1
20.	What about a generator? Electricity **load shedding** will equally affect the sanitiser production.	1
21.	The company should consider **other potential costs**, e.g. decommissioning costs, of the plant.	1
22	Tone from the top, the consideration around ethics of the CEO and her potential to put pressure on decision that will make the project a perceived success.	1
23	Consideration to gain access to suppliers of the sanitiser component (e.g. alcohol). Will it be easy to get a **reliable supplier** of these components? Timing consideration on when suppliers would be able to deliver and thus commence manufacturing.	1
24	**Sustainability of future demand.** Heightened demand linked only to the pandemic. Therefore, this is not a long-term business as once the pandemic risk is decreased so too will the demand for hand sanitizer which means that the cash flow forecast is potentially over-optimistic. Break-even consideration.	1
25	**Alternative markets** outside hand-sanitise for instance any other uses for the plant, for instance the manufacturing of **face masks, protective clothing** or any other purpose which is more closely aligned to its core business.	1
26	Will Kidzo have access to sufficient funding for the venture? e.g investment in working capital will need to be funded as well.	1
Available		**27**
	Maximum	**15**
	Communication skills – logical argument	***1***
	Total for part (a)	**16**

Part (b)	**Calculate the estimated WACC to be used for the evaluation of the new hand sanitiser investment. Motivate the choices you make and provide reasons for the items you omit from your answer.**				**Marks**
1.	The **current capital structure is not relevant** as it is temporary measure to cope with the current Covid-19 environment. It would be incorrect to make long-term decisions using this ratio.				1
2.	The **optimal capital structure is preferred** as this guides the company in long-term financial planning and the company will return to that in the long run. The company may have to **re-think what its optimal structure** is going to be when it is exposed to completely different operational risks.				1 1
3.	The **beta** should be **adjusted** for risks specific to the company and project.				1
4.	Beta chemicals industry (given change in industry) *Valid explanation on basis of selection and items omitted.*			1,1	1 1
5.	Government bond (5-year) *(Marker note: Application mark awarded for the use of 5 year bond yield)* *Valid explanation on basis of selection and items omitted.*			7,86%	1 1
6.	Cost of equity (7,86%+(12,5%-7,86%)x1,1			12,96%	1C
7.	Cost of debt after tax (10%x0,72)			7,2%	1
	WACC calculation	Weight	Cost	WACC	
8.	Debt *(Mark awarded for use of correct weighting)*	50%	7,2%	3,60%	1
	Equity	50%	12,96%	6,48%	
9.				10,08%	1P
10.	Inflation adjustment (10,08%+1)/(1+4%)-1 = 5,85%				1C
11.	The cost of capital cannot be calculated from specific forms of funding for a project, as that would result in different discount rates for every investment decision taken – it is therefore more sensible to use the same rate for all investment decisions of a similar risk nature.				1
12.	Furthermore, in calculating the WACC, reference should be made to the long-term sources of finance. The **bank overdraft should therefore not be included** in the calculation, **unless it has a permanent core** that in substance is a long-term source of financing.				1
13.	The **cash available** is effectively part of the funding structure, but should **not be included** as suggested. The reason is that the cash represents the yield from investments that were made using different capital sources and, if re-invested, would be expected to yield at least the weighted average cost of capital (therefore the cost of cash = WACC, and it is unnecessary to include the cash in the calculation).				1 1
14.	The **lease** could potentially be included in the calculation as it represents at least medium-term financing and the assumption may be made that it will be replaced by similar debt going forward for other investment decisions (to keep to the optimal capital structure). The effective cost of the lease is 7,93% before tax. The fact that the lease cost is so much lower than the average cost of debt for the company, indicates that it should be taken into account when calculating the average cost of debt.				1 1 1

	Not enough information is provided to determine the current market value of debt, and therefore the weighting of the interest cannot be performed.	
15.	It should further be considered **whether using a real rate** and real cash flows are **correct in this scenario**, as not all cash flows may escalate by the same rate **and therefore a nominal rate may be more appropriate.**	1
	Available	**21**
	Maximum	**15**
	Communication skills – presentation	***1***
	Total for part (b)	**16**

Part (c) Calculate the estimated net present value of the hand sanitiser project, taking into account the resolutions by the board of directors. • Prepare all forecast cash flows on an annual basis. • Assume all operational cash flows provided in the *Manufacturing plan for hand sanitiser* are equal to current year values (i.e. do not adjust these values for inflation).							**Marks**
	0	**1**	**2**	**3**	**4**	**5**	
Production units (500ml bottles)		720 000	720 000	720 000	720 000	720 000	1
Litres		360 000	360 000	360 000	360 000	360 000	
	0	**1**	**2**	**3**	**4**	**5**	
Mixing and storage facilities	-10 000 000						1
Revenue (30 x 60 000 x 12)		21 600 000	21 600 000	21 600 000	21 600 000	21 600 000	1
Plastic bottles (2 x 60 000 x 12)		-1 440 000	-1 440 000	-1 440 000	-1 440 000	-1 440 000	½
Spray-top fixtures (1 x 60 000 x 12)		-720 000	-720 000	-720 000	-720 000	-720 000	½
Ethanol (2/3 x 720 000/2 / 25 x 600) (Or 2/3 x 500 x 600 / 25 000 x 720 000		-5 760 000	-5 760 000	-5 760 000	-5 760 000	-5 760 000	2
Aloe Vera gel (1/3 x 720 000 / 2 / 50 x 2 000)		-4 800 000	-4 800 000	-4 800 000	-4 800 000	-4 800 000	2
Essential oil drops (ZWL5 000 x 12)		-60 000	-60 000	-60 000	-60 000	-60 000	½
Working capital *(1 mark for correct calculation & 1 mark for correct outflow in year 0 and inflow year 5)*	-2 160 000		0			2 160 000	2
Labour re-training	-25 000						1
Labour cost (5 x 12 x 15 000)		-900 000	-900 000	-900 000	-900 000	-900 000	1
Retrenchment cost opportunity saving (5 x 2 x ZWL15 000)	150 000						1
Supervisor salary (25 / 2 x 12)		-150 000	-150 000	-150 000	-150 000	-150 000	½
Electricity variable cost (0,475 x 200 000)		-95 000	-95 000	-95 000	-95 000	-95 000	1
Electricity fixed cost – current (sunk)		-	-	-	-	-	1
Electricity additional fixed cost		-120 000	-120 000	-120 000	-120 000	-120 000	1 P
Factory insurance additional *(no mark if factory rental included)*		-144 000	-144 000	-144 000	-144 000	-144 000	1
Transportation (720 000 / 20 000 x 5 000)		-180 000	-180 000	-180 000	-180 000	-180 000	1
Taxation (@28%) – Refer to workings		-1 519 872	-1 506 929	-1 526 842	-1 545 990	-1 564 401	6C
Cash flow	-12 035 000	5 711 128	5 724 071	5 799 158	5 685 010	7 826 599	
Net present value	13 016 386						1C
Discount rate *(has to be consistent with (c) and with inflation adjustment)*	5.85%						1C
Electricity high-low: Variable element (50 000 - 12 000) / (100 000 - 20 000)	0.475	per kWh					1
Leasing							

Bottling plant lease Pmt/(1+rate) t *No mark if -2mil, 1 mark for ZWL500k per annum)* Pmt x (1 + rate)^t		-480 769	-462 278	-444 498	-427 402	-410 964	2
Taxation		134 615	129 438	124 459	119 673	115 070	
Leasing cashflows		**-346 154**	**-332 840**	**-320 039**	**-307 729**	**-295 894**	
Net present value -Leasing		1 528 507					
Discount rate (**7.93%***0.72)		5.71%					1
Inflation adjustment		1.64%					1
Adjusted Net Present Value		11 487 880					
						Available	**32**
						Maximum	**25**
						Total for part (c)	**25**

Workings - Taxation

	0	1	2	3	4	5	Marks
Revenue		21 600 000	21 600 000	21 600 000	21 600 000	21 600 000	
Plastic bottles		-1 440 000	- 1 440 000	- 1 440 000	-1 440 000	-1 440 000	
Spray-top fixtures		- 720 000	- 720 000	- 720 000	- 720 000	- 720 000	
Ethanol		-5 760 000	- 5 760 000	-5 760 000	- 5 760 000	- 5 760 000	
Aloe Vera gel		-4 800 000	- 4 800 000	- 4 800 000	- 4 800 000	- 4 800 000	
Essential oil drops		- 60 000	- 60 000	- 60 000	- 60 000	- 60 000	
Labour re-train *1 mark for ZWL25 000]*		- 24 038					1.5
Retrenchment opp cost *[1 mark for ZWL150 000]*		144 231					1.5
Wear and tear *No mark if depreciation included; 1 mark for ZWL 2 000 000 per annum)*		-1 923 077	-1 849 112	-1 777 993	- 1 709 608	-1 643 854	2
Labour		- 900 000	- 900 000	-900 000	- 900 000	-900 000	
Supervisor salary		- 150 000	- 150 000	-150 000	- 150 000	-150 000	
Electricity variable		- 95 000	- 95 000	-95 000	- 95 000	-95 000	
Electricity additional		- 120 000	-120 000	-120 000	-120 000	-120 000	
Factory insurance		- 144 000	- 144 000	-144 000	-144 000	-144 000	
Transportation		- 180 000	- 180 000	-180 000	-180 000	-180 000	
Taxable income		**5 428 115**	**5 381 888**	**5 453 007**	**5 521 392**	**5 587 146**	
Taxation @28%		**1 519 872**	**1 506 929**	**1 526 842**	**1 545 990**	**1 564 401**	**1**