Question 1 (10 marks)

WSAF currently has an all-equity capital structure with 500,000 shares outstanding that have a price of $50 each.
Each year, there are two possible economic forecasts. Under Forecast #1, WSAF's EBIT is $3,000,000.
Under Forecast #2, it is $4,000,000. There are no taxes and the firm dividends out all of its Income each year to shareholders.
Assume Perfect Markets

(a) Jake owns 2500 shares of the firm. How much cash flow would he receive under Forecast 1?
Under Forecast #2? **(2 marks)**

		FCST 1	FCST 2
0.50%	of shares =	**$15,000**	**$20,000**
		1 mark	1 mark

(b) WSAF is considering converting to a capital structure with a Debt: Equity ratio of 1:1, by issuing debt to repurchase some shares.The firm can borrow at an interest rate of 5%. If Jake keeps all of his shares, what will be his cash flow under each economic forecast?
(8 marks)

				Marks
Firm Value =	**$25,000,000**			0.5
Equity =	**50%**	**$12,500,000**		1
Debt =	**50%**	**$12,500,000**		1
$12,500,000	of debt is used to purchase		**250000**	1
shares, with	left outstanding		**250000**	0.5

	EBIT	Interest	EBT	Jake's % Share	Jake's $ Share	Marks
Scenario 1	**$3,000,000**	**$625,000**	**$2,375,000**	1.00%	**$23,750**	2
Scenario 2	**$4,000,000**	**$625,000**	**$3,375,000**	1.00%	**$33,750**	2

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Question 2 - ACME WACC (12 marks)

	Rf	(Rm * Beta)		Marks
Ke =	3.00%	6.00%		2
Ke =	9.00%			1
Kd =	6.00%			1
		subTotal Marks		4.0
Tax Rate =	35.0%			

Pre-Tax WAAC is calculated as :

	Market Value	% Capital	Cost	WACC	Market Marks	% Capital Marks
Common Shares	$20,000	33.3%	9.0%	3.00%	1	1
Long Term Debt	$40,000	66.7%	6.0%	4.00%	1	1
	$60,000	100.0%		7.00%	2	2
				Correct WACC		1
				Total Marks		5

After Tax WAAC is calculated as :

	Market Value	% Capital	Cost	WACC	Marks
Common Shares	$20,000	33.3%	9.0%	3.00%	
Long Term Debt	$40,000	66.7%	3.9%	2.60%	2
	$60,000	100.0%		5.60%	
				Correct WACC	1
				Total Marks	3

TO Manufacturing is a considering the launch of "Skittles", a new product.
TO's value at the end of next year will depend upon Skittles' market success, which has three possible outcomes:
Case 1 (40% probability) of $150 MM
Case 2 (30% probability) of $120 MM
Case 3 (30% probability) of $ 80 MM

Marks **(a)Assuming perfect markets and a risk free rate of 5%, what is initial value of TO's equity without leverage?**

2 **Vu=** $\dfrac{(.4*\$150MM) + (.30*\ \$120MM) + (.30*\$80\ MM)}{1.05}$

Vu= **$114.3 MM**

Now assume TO has $100 MM of zero coupon debt due at the end of Year 1.

(b) What is the value of the debt?

3 **D=** $\dfrac{(.4*\$100MM) + (.30*\ \$100MM) + (.30*\$80\ MM)}{1.05}$

D= **$89.5 MM**

(c) What is the yield to maturity of the Debt ?

1 **=** $\dfrac{100}{89.5} - 1$

= **11.7%**

3 **(d) What is the value of the equity when levered?**

E= $\dfrac{(.4*\$50MM) + (.30*\ \$\ 20MM) + (.30*\ \$0)}{1.05}$

E= **$24.8 MM**

OR **Equity Value = Firm Value- D $114.3 MM - $89.5 MM = $24.8 MM**

(e) What is the total value of TO Manufacturing with Leverage?

1 **Total Value of Firm Levered= Debt + Equity**
= $89.5 MM+$24.8 MM = $114.3

10 Total Marks

Question 4 – **Financial Distress (7 marks)**

(a) **How do Debt holders protect their interests? (3 marks)**

Primarily through the Combination of: (1 mark each)

1. Negotiating Legal Security such as a General Security Agreement, that sets out loan terms, conditions, and events of default.

2. Registering the Security properly under PPSA or Land Registry system.

3. Implementing key Financial Covenants (on Leverage, like D/E, and Coverage, like EBITDA/(P+I)).

(b) **What are the main differences between the provisions of the Company Creditors Arrangement Act (CCAA) and the Bankruptcy and Insolvency Act (BIA)? (2 marks) A point form response is acceptable.**

Generally, CCAA is for larger, more complex situations where debt >$ 5MM. The main differences are:

- **CCAA requires that creditors "standstill" and not enforce security (1 mark)**
- **CCAA provides for " Debtor in Possession" financing (.5)**
- **CCAA provides more flexibility in negotiating with creditors and employees. (.5)**

(c) **In a Bankruptcy liquidation, rank the order of priority (from 1 to 4) of these classes of creditors (2 marks; ,5 each) :**

	Rank
• Trade Creditors	4
• CRA	1
• Subordinated Debt	3
• Senior Debt	2

Question 5 – Short Answer Questions (11 marks)

(A) What are the main factors affecting a Corporation's ability and willingness to issue debt? (3 marks)

- **Ability to service the debt, as indicated by Cash Flow Forecasts**

(1 marks), Plus any of two these others

- **Capital market Conditions – is it a good time to issue debt or Equity? (1 mark)**
- **Can they use the interest tax shield? (1 Mark)**
- **Do they have unencumbered tangible assets? (1 Mark)**
- **Cash Flow Stability (1 Mark)**
- **Corporate Size (1 Mark)**
- **Growth Rate (1 Mark)**

(B) Given 2014 relative tax rates in Ontario, would investors in the highest tax bracket prefer a dividend or a share repurchase? Include the tax rate for each alternative in your answer. (3 marks) (1 mark for each approx tax rate; 1 for rate difference)

In Ontario, capital gains are taxed at 23.2% vs. 29.52% for Capital Gains

Hence, high income investors would prefer share repurchases, as the tax rate is 6.32% less.

(C For the payment of a cash dividend, please arrange the following steps in chronological order (from 1 to 4) (2 marks; ,5 each)

	Order
• Date of Record	3
• Payment Date	4
• Declaration Date	1
• Ex -Dividend Date	2

(D) What type of investor generally prefers capital gains? (1 mark)

Generally, individuals in a high income tax bracket.

(E) What is Alibaba's expected market capitalization at IPO? (1 mark)

$ US 100 B- $200 B

(F) Name an industry that is more likely to retain cash instead of paying it out to shareholders, and explain why that is the industry norm? (1 mark)

Pharmaceutical or technology companies (.5 marks) are likely to retain more cash to avoid future transaction costs, as their underlying business Income can be volatile and/or they forecast large cash requirements for R&D (.5 marks for either one).