VARIANT 2

TASK 1. (Approximately 20 -25 minutes)

(Total: 20 marks)

Consider a closed economy with fixed prices and wages. Suppose consumption function takes the form $C = 50+0,8Yd$, Investments are $I = 170$, government purchases are $G = 500$, tax rate $t= 0,2$. There are no lump-sum taxes.

(a) *Calculate equilibrium output and Budget Deficit. Plot the planned aggregate spending line and show the equilibrium output*. (**4 marks**)
(b) *If the Government decides to balance the Budget by changing the tax rate, what new tax rate the Government need implement?* (**4 marks**)
(c) *Calculate the new equilibrium output after the change in the tax rate. Show how changes in the tax rate affect the planned aggregate spending line and new equilibrium output*. (**4 marks**)
(d) *Compute the government spending multiplier before and after changes in tax rate. Explain why multiplier is changed?* (**4 marks**)
(e) *If the potential output is 2500 and economy is in initial equilibrium (a) what changes in government purchases the Government need to implement in order to achieve potential output? Show how changes in government purchases affect the planned aggregate spending line and new equilibrium output.* (**4 marks**)

TASK 2. (Approximately 45 minutes)

(Total: 20 marks)

CBA Co, a company which operates in the retail trade, has approached its bankers to negotiate overdraft facilities of $3m which will be used to repay a short-term loan currently outstanding and to provide working capital. You have been asked, as a newly appointed credit analyst, to comment on the short-term liquidity position of the company as part of the initial screening process. The following preliminary figures have been made available to you:

	2021	2020
	$000	$000
Income statement:		
Sales revenue	36,720	30,360
Gross profit	9,915	9,180
Operating profit for the year	2,220	2,775
Depreciation expense	810	750

	2020	2019
	$000	$000
Statement of financial position:		
Inventory	2,460	1,620
Trade receivables	1,176	195
Cash at bank	729	3,480
Short-term loan	1,200	-
Trade payables	2,670	1,701
Taxation payable	780	810
Interest payable	1,680	1,200

Required:
(a) Compute suitable ratios relating to the company's profitability, liquidity, and working capital management. Express your ratios with the correct notation. **(8 marks)**
(b) Write a brief report for your manager commenting on these issues. **(7 marks)**
(c) What information would you need in order to advise your senior managers on whether overdraft facilities should be granted? Give your reasons? **(5 marks)**

TASK 3 (M&A). (Approximately 40 minutes)

(Total: 25 marks)

There are two pharmaceutical firms. The small one is Rue Labs and the big one is Fezco Industries. The firms are considering various options of merger. The Fezco Industries is an all equity firm with 50 mln shares outstanding and expected growth of earnings equal to 5%. The current earnings are $250 mln and the required rate of return on equity of 15%. The Rue Labs has good growth prospects but it is in a distressed financial condition because of debt with the face value of $200 mln that should be repaid immediately. The EBIT (Earnings Before Interest and Taxes) of Ryu Labs is currently $50 mln with expected growth equal to 25% and the market capitalization of equity equal to $1.3 bln with 325 000 shares outstanding. There are no taxes. If the Fezco Industries acquires the Rue Labs the former would gain +20% in earnings and also pays out the debt of the latter.

(a) Find equity capitalization of the Fezco Industries and its share price. **(3 marks)**

(b) Find required rate of return to assets implied by the Rue Labs equity capitalization and its share price. **(5 marks)**

(c) Consider the case of the cash transaction i.e. the Fezco Industries purchase 100% of the Rue Labs equity and pay with cash. What is the maximum price (denote by p_{Max}) which Fezco Industries owners are ready to pay for the Rue Labs shares? If the purchase is made with price equal to 80% of the p_{Max} how much wealth do the Rue Labs owners gain? What about the Fezco Industries' owners? **(8 marks)**

(d) Assume now that the Fezco Industries pay with newly issued shares. The offer is the following: The Fezco Industries issues 22.5 mln of new shares and exchange them for 100% of the Rue Labs shares. Will this offer be taken by the Rue Labs owners? Is it profitable from the Fezco Industries perspective? How much wealth gain would every party get? **(9 marks)**