

**Economics Test**  
**Time: 90 minutes**

**Problem 1. (10 points)**

This year's summer is expected to be very sunny. Hence the demand for sunglasses is given by equation  $Q_d = 1200 - 4P$ . The supply of sunglasses is given by equation  $Q_s = 100 + 6P$ . Fill in the following table and find the equilibrium price. Show on the graph.

<b>P</b>	<b>80</b>	<b>90</b>	<b>100</b>	<b>110</b>	<b>120</b>
<b>Q<sub>d</sub></b>					
<b>Q<sub>s</sub></b>					

**Problem 2. (25 points)**

Joe purchases food (measured by x) and clothing (measured by y) and has the utility function  $U(x, y) = xy$ . His marginal utilities are  $MU_x = y$  and  $MU_y = x$ . He has a monthly income of \$600. The price of food is  $P_x = \$10$ , and the price of clothing is  $P_y = \$30$ . Write the equation of budget; Find Joe's optimal consumption bundle. Show intercepts and optimum point on the graph.

**Problem 3. (20 points)**

What does it mean to say the economy is in a recessionary gap? Show graphically this situation and explain how to escape from recessionary gap according to classical economists.

**Problem 4 (20 points)**

Graphically show and explain how fiscal policy works in the ideal case.

**Problem 5 (25 points)**

		<b>Firm B</b>		
		<b>Low</b>	<b>Meduim</b>	<b>High</b>
<b>Firm A</b>	<b>Low</b>	B= 1 A= 11	B= 21 A= 19	B= 12 A= 6
	<b>Meduim</b>	B=25 A=10	B= 2 A= 3	B= 4 A= 23
	<b>High</b>	B=24 A= 5	B= 26 A= 14	B= 11 A= 17

Given the options of prices (High, Medium, Low) and profits between the Firm A and Firm B.

- a) Explain what is the Dominant strategy and Nash equilibrium in game theory?
- b) Find dominant strategy and Nash equilibrium in this game. Explain why that option is Nash eq-m?