## GUJARAT TECHNOLOGICAL UNIVERSITY

**SEMESTER-1 EXAMINATION - WINTER 2012** 

Subject code: 2810002 Date: 04/01/2013

**Subject Name: Economics for Managers** 

Time:14:30 – 17:30 Total Marks: 70

**Instructions:** 

1. Attempt all questions.

- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.
- Q.1 (a) Price stability and creating employment opportunities are two 07 important goals of any country's macroeconomic policy. Is there any trade off in short run and long run? Explain.
  - (b) Sneha views butter and cheese as perfectly substitutable for each other. 07
    - a) Draw a set of indifference curve that describes Sneha's preferences for butter and cheese.
    - b) If butter costs rupees 20 per package while cheese cost rupees 10 and Sneha has a budget of only rupees 200/- to spend a month, which butter-cheese market will she choose. Explain with the help of a proper schedule and graph.
- Q.2 (a) Suppose that your demand schedule for DVDs is as follows:-

Price	Quantity Demanded	Quantity Demanded	
	(income =	(income =	
	Rupees 10000)	Rupees 12000)	
8	40	50	
10	32	45	
12	24	30	
14	16	20	
16	8	12	

- a) Calculate your price elasticity of demand as the price of DVD increases from 8 to 10 if
  - i) Your income is rupees 10000
  - ii) Your income is rupees 12000
- b) Calculate your income elasticity of demand as your income increases from rupees 10000 to rupees 12000
  - i) The price is 12
  - ii) The price is 16
- (b) Pharmaceutical drugs have an inelastic demand and computers have an elastic demand. Suppose that technological advance doubles the supply of both products (that is the quantity supplied at each price is twice what it was )
  - a) What happens to the equilibrium price and quantity in each market?
  - c) Which product experiences a larger change in price?
  - d) Which product experiences a larger change in quantity?
  - e) What happens to total consumer spending on each product?

**(b)** The 'GoldMine' Company has a monopoly in the sale of bands and **07** faces the following demand schedule:

PRICE (in rupees)	QUANTITY DEMANDED
40	0
35	10,000
30	20,000
25	30,000
20	40,000
15	50,000
10	60,000
5	70,000
0	80,000

The firm has fixed cost of rupees 60,000. The marginal cost of each band is a constant rupees 15 per band.

- a. Compute total revenue, total cost and profit at each quantity. What equity would a profit maximizing manufacturer choose? What price would it charge?
- b. Compute marginal revenue. How does marginal revenue compare to the price? Explain.
- c. Graph the marginal revenue, marginal cost and demand curves. At what quantity do the marginal revenue and marginal cost curves intersect? What does this signify?
- d. In your graph, shade in the dead weight loss. Explain in words what this means.
- e. If the fixed cost rise to rupees 70000, how would this affect the firm's decision about what to price?
- (a) Dhama Industries Inc. is a leading manufacturer of treadmill. The 07 Q.3 company offers the product to both dealers and retail customers. The finance manager estimates that each product costs the company rupees 10,000 in labour and material expenses. Demand and marginal revenue relations for the product are

= 15000 - 5Qw (wholsale)

 $MRw = \Delta TRw / \Delta Ow = 15,000 - 10Ow$ 

= 50,000 - 20Qr (retail)

 $MRr = \Delta TRr / \Delta Qr = 50,000 - 40Qr$ 

- a) What is price discrimination?
- b) Assuming that the company can price discriminate between its two types of customers, calculate the profit maximizing price, output and profit contribution levels.
- c) Calculate point price elasticity for each customer type at the activity levels identified in part (b). Are the differences in these elasticities consistent with your recommended price differences in part (b)? Why or why not?

(b) The following is the output of a firm in a perfectly competitive market. 07

The firms cost function is given in the following schedule:

OUTPUT	TOTAL COST (in rupees)		
0	50		
10	120		
20	170		
30	210		
40	260		
50	330		
60	430		

Prevailing market price is rupees 7 per unit

- a) What is firms profit maximizing output levels?
- b) Is the industry in long equilibrium? Justify your answer.

## OR

(a) Below are some data from land of cotton and cheese. Q.3

Year	Price of	Quantity of	Price of	Quantity of
	Cotton (in	Cotton (in	Cheese (in	Cheese (in
	rupees)	units)	rupees)	units)
2010	1	100	2	50
2011	1	200	2	100
2012	2	200	4	100

- a) Compute nominal GDP, real GDP and the GDP deflator for each year, using 2010 as the base year.
- b) Compute the percentage change in nominal GDP, real GDP and GDP deflator in 2011 and 2012 from the preceding year. For each year, identify the variable that does not change. Justify the
- c) Did economic well-being rise more in 2011 or 2012? Explain.
- (b) What are the components of GDP? Explain each with the help of an 07 example.
- Suppose the natural rate of unemployment is 6 percent. On one graph, 07 0.4 draw two Phillips curves that describe the four situations listed here. Label the point that shows the position of the economy in each case.
  - a) Actual inflation is 5 percent, and expected inflation is 3 percent.
  - b) Actual inflation is 3 percent, and expected inflation is 5 percent.
  - c) Actual inflation is 5 percent, and expected inflation is 5 percent.
  - d) Actual inflation is 3 percent, and expected inflation is 3 percent.
  - (b) Explain the concept of inflation. Describe the different types of costs 07 associated with inflation. In your opinion, what is more harmful, inflation or unemployment? Justify your answer.

07

- **Q.4** (a) Explain how Consumer Price Index is calculated. Describe the **07** difference between the GDP deflator and CPI.
  - (b) Explain the role that banks play in the monetary system through the money multiplier. Explain the Reserve Bank's tools of monetary control.
- Q.5 (a) Suppose the Federal Government expands the money supply, but because the public expects this action, it simultaneously raises its expectation of the price level. What will happen to output and the price level in the short run? Compare this result to the outcome if the Federal Government expanded the money supply but the public didn't change its expectation of the price level.
  - (b) What is happening to the India real exchange rate in each of the 07 following situations? Explain.
    - a) The India nominal exchange rate is unchanged, but prices rise faster in India than abroad.
    - b) The India nominal exchange rate is unchanged, but prices rise faster abroad than in India.
    - c) India nominal exchange rate declines, and prices are unchanged in India and abroad.
    - d) India nominal exchange rate declines, and prices rise faster abroad than in India.

## OR

- Q.5 (a) Suppose a society decided to reduce consumption and increase 07 investment.
  - a) How would this change affect economic growth?
  - b) What groups in society would benefit from this change? What groups in society would be adversely affected?
  - (b) You are curator of a major art museum. Your director of finance tells you that the museum is running short of funds and suggests that you consider changing the price of admission to increase total revenue. What do you do? Do you raise the price of admission, or do you lower it? Justify your answer with an explanation.

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