Micro Economics

Year 2004

Attempt any THREE questions: **[3 x 10 = 30]**

1. Discuss the income effect and substitution effect of a fall in the price of commodities. Use suitable diagram.
2. What is demand function? Why is it useful in business decisions? Explain.
3. Define production function with one variable input and explain least cost combination under production function with one variable input.
4. Discuss price and output determination under monopoly.

Group 'B' Attempt any FOUR questions: **[4 x 5 = 20]**

1. Micro and Macro economics are interdependent to each other.
2. Explain.Why is short run cost curve U shaped?
3. Define firm and industry. How does industry attain equilibrium?
4. What is supply curve? Derive short-run supply curve.
5. Define and explain the features of oligopoly market.
6. Interest is determined by demand and supply of loanable fund. Explain.

Year 2005

Attempt any THREE questions: [3×10=30]

1. What is price elasticity of demand? Discuss the determinants of price elasticity of demand.
2. Define consumer's equilibrium. Explain how a consumer attains equilibrium with the help of indifference map and budget line.
3. Define production function. Explain the laws of returns to scale with the help of iso-quant map.
4. What are the conditions necessary for price discrimination? How is price and output determined under discriminating monopoly?

Group 'B'   Attempt any FOUR questions: [4×5=20]

5. What is the meaning of demand in economics? Explain the individual and market demand schedule.
6. What is marginal rate of substitution (MRS)? Why does MRS diminish along the indifference curve?
7. Define and derive the TFC, TVC and TC in short run.
8. Explain law of variable proportion with table and diagram.
9. Explain the equilibrium of a firm under perfect competition under MR-MC approach.
10. "Profit is a dynamic surplus". Discuss.

1.Give Brief Answer for the following question:

1. Define micro economice.
2. Define cardinal utility approach.
3. How do you compute Arc elasticity of demand.
4. List any four determinants of Supply.
5. Difine a budget line.
6. What are the main features of monopolistic competition?
7. Suppose price of labour is Rs. 10 and price of capital is Rs. 20 . Use this information to determine the Iso- cost line corresponding to total cost Rs. 400 and Rs.1,000.
8. List the five changes as described by JB Clark in dynamic theory of profit.
9. Under perfect competition MR=AR. Give reasons for your answer.
10. What is vsriable cost? Give is three examples.

Group B [3´10=30]

Attempt any THREE question:

2. Define indifference curve. What are its main properties?
3. Discuss the measurement of price elasticity of demand by total outlay   Method.
4. Explain the determination of equilibrium price and output under Monopoly.
5. Explain modern theory of rent with suitable diagram.

Group C [4´5=20]

6. Explain income effect.
7. Define elasticity of demand. What are its determinants?
8. Why is a short run average cost "U" shaped? Explain its reasons.
9. Explain the law of variable proportion in term of three stages of   Operation with diagram.
10. Define fixed cost. Give its example and construct imaginary table And diagram.
11. Explain the different types of micro economics.

1. **Brief Answer Questions: [10x1=10]**

1. Define Micro economics.
2. The quantity demanded of a commodity at a price of Rs 10 per unit is 500 units. Its price falls to Rs 5 and as a result quantity demanded rises to 600 units. Calculate its price elasticity of demand.
3. Define cardinal and ordinal utility approaches.
4. List any four determinants of supply.

5. Suppose price of labour is Rs 5 and price of capital is Rs.10. Use this information to determine the iso-cost lines corresponding to total cost Rs.400 and Rs.1000.
6. Show the relationship between MC and AC in a diagram.
7. What is variable cost? Give its three examples.
8. Give two examples of oligopoly market in Nepal.
9. S\how the relationship between AR and MR under imperfect competition.
10. List the five changes as described by J.B. Clark in his dynamic theory of profit.

Group 'B'   **[3x10=30]**

1. Define indifference curve. Describe its properties.
2. Explain the law of variable proportions.
3. Define price discrimination. How does a monopolist fix price under discriminating monopoly to attain maximum profit?
4. Explain the marginal productivity theory of wage.

Group 'C'

6. Why is "SAC" U shape? Give reasons for your answer.
7. Describe the properties of iso-quants.
8. What are the main determinants of demand?
9. Define cross elasticity of demand. Explain various types types of cross elasticity of demand.
10. Explain the concept of price effect with the help of indifference map and budget line.
11. Explain the uses of microeconomics.

1. **Brief Answer Questions: [10x1=10]**

1. Define microeconomics.
2. List the determinants of demand.
3. What are giffen goods?
4. Point out the factors determining the supply of a commodity.
5. When is the income elasticity of a commodity positive?
6. What is Marginal Product?
7. Define implicit costs.
8. Define oligopoly with example.
9. Draw Engel curve for inferior goods.
10. What are the five changes which result profit in dynamic economy according to J.B Clark?

Group 'B'

Long Answer Questions (Any THREE):   [3x10=30]

1. Define indifference curve. Explain with diagram how a consumer reaches his equilibrium point.
2. Define price elasticity of demand. Explain the total outlay method to measure price elasticity of demand.
3. What are the main features of monopolistic competition? Explain the process of price determination under monopolistic competition in the short run.
4. Explain the law of variable proportion.

Group 'C'   [4x5=20]

1. Derive the income consumption curve(ICC) for superior and inferior goods with the help of ordinal utility analysis.
2. Why is a short run average cost "U" shaped? Explain its reasons.
3. Explain modern theory of rent.
4. Define iso-quants. What are its properties?
5. Derive short run supply curve of a firm under perfect competition.
6. Explain the shape of average revenue curve and marginal revenue curve in monopoly market.

Year 2010

Brief Answer Questions

1. List out any four determinants of demand for motorbikes in Nepal.
2. What is the reason for the convex shape of an indifference curve?
3. Define opportunity cost in one sentence.
4. Let, Marginal revenue = Rs.5, price elasticity of demand = 3. Compute price of product.
5. Suppose the price of coffee rises from Rs.4 per hundred grams to Rs.5 per hundred grams and as a result the consumers demand for tea increases from 60 hundred grams to 70 hundred grams. What is the cross elasticity of demand of tea for coffee?
6. State the relationship between AR and MR under perfect competition.
7. Define law of increasing returns to scale.
8. Give two examples of price discrimination practiced in Nepal.
9. Define supply function.
10. What are the motives of demand for money according to Keynes?

Group 'B'   Short Answer Questions: [6*5=30]

1. Explain the importance of microeconomics in business decision making.
2. How does labour get maximum satisfaction by making a choice between income and leisure? Explain with the help of indifference curve.
3. Explain the innovation theory of profit.
4. Derive the short-run supply curve of a competitive firm.
5. How are the price and the output determined under monopoly in long-run? Explain
6. Define positive income elasticity of demand. What are its types?

Group 'C'   Comprehensive answer questions: [2 * 10=20]

1. Consider the following cost output relation of a particular firm:

Q	0	1	2	3	4	5	6	7	8

TFC	200	200	200	200	200	200	200	200	200
TVC	0	20	36	48	64	100	160	248	360

1.
   1. Calculate TC, AFC, AC and
      MC.   **[5]**
   2. Using schedule, explain the relationship between AC and MC. Why is SAC U-
      shaped?   **[3+2]**
2. Consider the following table:

Combinations	Labour	Capital	MRTS	Total Cost (in Rs.)
a	1	12		
b	2	8		
c	3	5		
d	4	3		
e	5	2		

a.Compute MRTS$_{LK}$ and draw
IQ.   . Find out the least
cost combinations of factor inputs when the price of labour & capital are Rs.7
and   Rs.5perunit.
         c. Draw Iso-cost line of a firm for total cost outlay of Rs.1,000 if price of
labour and capital are Rs.100 and Rs.50
respectively.   **[2]**

Group "A" – Brief Answer Questions: [10 X 1 = 10]

1. Prepare a list of uses of microeconomics in business decision making.
2. What will be the shape of Engle curve for luxurious goods and inferior goods?
3. List out the properties of Cobb-Douglas production function.
4. What do 'a' and 'b' represent in demand function: Qx = a – bPx?
5. State the condition for equilibrium according to marginal productivity theory of wages.
6. Write any two factors that limit monopoly power in the world.
7. If the marginal cost of monopoly firm at its equilibrium is Rs 10 and price elasticity of its demand equals 2.5, what would be equilibrium price?
8. A firm's total revenue is Rs 200,000 its cost is Rs 220,000 with fixed Rs 110,000. Should the firm stay in business? Give proper reason.
9. What are the characteristics of LAC?
10. What is the main difference between fixed inputs and variable inputs?

Group "B" – Short Answer Questions: [6 X 5 = 30]

11. Microeconomics is the study of allocating limited resources to solve the problems of optimizations. Justify this statement with suitable examples.
12. What is price elasticity of demand? Explain its issue in business decision making.
13. Define isoquants. Explain its properties.
14. What is monopoly? How are the price and the output determined under monopoly in long-run?
15. All portions of SMC from and above shutdown point reveal short-run supply curve of a competitive firm. Give proper reasons to justify this statement.
16. State and explain the liquidity preference theory of interest.
17. Consider the following preference schedules: [2+2+2+2+2]

Schedule I			Schedule II		
Combinations	X Goods	Y Goods	Combinations	X Goods	Y Goods
AB	1020	7242	GH	2030	90
C	30	20	I	40	62
D	40	8	J	50	44
	50	4	K	60	30

E	60	2	L	70	22
F					16

a) Graph schedule I and II and label them by IC1 and IC2
b) Sketch the budget line when Px = Rs 80 and Py = Rs 40 and consumer's budget = Rs 3,200 and identify that what combination of X goods and U goods will put the consumer at an optimum point at IC1?
c) Let the price of X goods drop to Rs 40 per unit at constant price of Y goods and consumer's budget. Draw the new budget line and identify that combination of X and Y goods will put the consumer at an optimum point at IC2? Does is reflect price effect?
d) Let, government impose 40% tax on consumer's income. Draw new budget line at Px = Rs 40 and Py = Rs 40 and also identify what combination of X and Y goods will put the consumer at an optimum point? Does it reflect income effect? Does it prove that price effect is decomposed into income and substitution effects? Give reasons.

18. Consider the following cost schedule. [2 + 4 + 4]

Output (Q):	0	1	2	3	4	5	6	7	8	9
Total Cost (TC)	300	330	354	372	396	450	540	672	840	1080

a. Compute TFC, AFC, AVC and AC.
b. Using schedule, prove that AC is influenced the trend of AFC and AVC.
c. Graph AFC, AVC and AC and prove that AC curve is derived by the vertical summation of AFC and AVC curves.

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Full Marks: 60
Time: 3 Hrs.

2012

Candidates are required to give their answers in their own words as far as practicable.

Attempt ALL questions

Group "A"

Brief Answer Questions: *[10 × 1 = 10]*

1. Define micro-dynamics in one sentence.

2. What is price elasticity of supply according to arc method?

3. What is meant by indifference map?

4. What are the properties of isoquant?

5. Why is LAC U-shaped?

6. Write any four characteristics of monopolistic competition.

7. What are the causes of oligopoly?

8. What are the motives for demand for money according to Keynes?

9. Write any five determinants of demand.

10. Make a list of objectives of price discrimination.

Group "B"

Short Answer Questions: *[6 × 5 = 30]*

11. What are the uses of microeconomics? Explain brief with illustrations.

12. How is income elasticity of demand computed by point method on a linear demand curve?

13. Explain the behavior of TFC, TVC and TC.

14. Derive a short run supply curve of a competitive firm.

15. How are the price and the output determined under third-degree price discrimination?

16. Explain the marginal productivity theory of wages.

Comprehensive Answer Questions: $[2 \times 10 = 20]$

17. Using the production function, $Q = 16L + 8L^2 - L^3$

    i)   Graph TP, AP and MP and explain the concept of law of variable proportions.[7]

    ii)   Using production schedule, explain the relationship between AP and MP.   [3]

18. Let, a consumer with fixed income of Rs 4,000 select two goods. i.e. X and Y for consumption having prices of Rs 800 and Rs 400 respectively. $[5 \times 2 = 10]$

    a. Derive budget constraint.

    b. Identify equilibrium point when consumer allocates entire budget equally on two goods.

    c. Let, price of X goods falls to Rs 400. Sketch the new budget constraint with constant price of Y good and consumer's income.

    d. When a consumer spends Rs 1,600 on X good and Rs 2,400 on Y good after fall in price of X good as explained in (c) above. Show the new equilibrium to the consumer.

    e. Derive price demand curve. Also define nature of X and Y goods.

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| BIM / Fourth Semester / ECO 201: Micro Economics |

Candidates are required to give their answers in their own words as far as practicable.

Attempt ALL questions

Group "A"

Brief Answer Questions: *[10 × 1 = 10]*

1. Write any four determinants of demand.

2. What does income elasticity of demand greater than unity ($e_y > 1$) mean?

3. How do you compute factor intensity with the help of Cobb-Douglas production function?

4. Why does a competitive firm operates its plant at optimal capacity in longrun?

5. Compute equilibrium price at marginal cost = Rs 10 and price elasticity of demand = 3.

6. What are the conditions for consumer's equilibrium?

7. Why does total product increases at an increasing rate when marginal product increases?

8. How do you compute economic rent?

9. Suppose, a firm under monopolistic competition produces 200 units of X good with TC = Rs 300000 and TVC = Rs 140000 and receives Rs 180000 as annual turnover after selling entire output. Does firm stay in business?

10. Write any four characteristics of LAC.

Group "B"

Short Answer Questions: *[6 × 5 = 30]*

11. Microeconomics is the study of allocating limited resources to solve the problems of optimizations. Justify this statement with suitable examples.

12. Explain the law of diminishing marginal rate of substitution.

13. State and explain the relationship between TR and MR with price elasticity of demand.

14. How are the price and the output determined under monopoly in short run?

15. Explain the marginal productivity theory of wages.

16. Explain the behavior of TFC, TVC and TC.

Comprehensive Answer Questions:

$[2 \times 10 = 20]$

17. (a) Consider the following demand schedule and compute price elasticity of demand at point A, B, C, D and E.

[5]

Points:	A	B	C	D	E
Px	40	30	20	10	0
Qdx	0	100	200	300	400
e_p	...	...	...	...	...

(b) How is price elasticity of supply computed by point method in a linear supply curve? [5]

18. A firm can use three different production technologies, with capital and labor requirements at each level of output as follows:

$[4 + 4 + 2 = 10]$

Daily output	Technology I		Technology II		Technology III	
	K	L	K	L	K	L
400	6	14	8	10	10	8
500	6	20	8	14	10	10
600	8	22	10	16	12	12
700	10	26	12	20	14	16

a. For each level of output, which technology is the cheapest, when a firm is operating in a high-wage country, with capital cost Rs 200 per unit per day and labor cost Rs 160 per worker per day.

b. For each level of output, which technology is the cheapest, when a firm is operating in a low wage country, with capital cost Rs 200 per unit per day but labor cost only Rs 80 per unit per day.

c. Is there application of law of substitution in the process of employment change when the firm moves from a high-wage country to a low-wage country in order to produce level of output 600 units?

Time: 3 Hrs.

BIM / Fourth Semester / ECO 201: Micro Economics

Candidates are required to give their answers in their own words as far as practicable.

Attempt ALL questions

Group "A"

Brief Answer Questions: *[10 × 1 = 10]*

1. Prepare a list of uses of microeconomics in business decision making.

2. What will be the shape of Engel curve for luxurious goods and inferior goods?

3. List out the properties of Cobb-Douglas production function.

4. What do 'a' and 'b' represent in demand function: $Q_x = a - bP_x$?

5. State the condition for equilibrium according to marginal productivity theory of wages.

6. Write any two factors that limit monopoly power in the world.

7. If the marginal cost of a monopoly firm at its equilibrium is Rs 10 and price elasticity of its demand equals 2.5, what would be equilibrium price?

8. A firm's total revenue is Rs 200,000 its cost is Rs 220,000 with fixed cost Rs 110,000. Should the firm stay in business? Give proper reason.

9. What are the characteristics of LAC?

10. What is the main difference between fixed inputs and variable inputs?

Group "B"

Short Answer Questions: *[6 × 5 = 30]*

11. Microeconomics is the study of allocating limited resources to solve the problems of optimizations. Justify this statement with suitable examples.

12. What is price elasticity of demand? Explain its uses in business decision making.

13. Define isoquants. Explain its properties.

14. What is monopoly? How are the price and the output determined under monopoly in long-run?

15. All portions of SMC from and above shutdown point reveal short-run supply curve of a competitive firm. Give proper reasons to justify this statement.

16. State and explain the liquidity preference theory of interest.

Comprehensive Answer Questions: [2 × 10 = 20]

17. Consider the following preference schedules: [2+2+2+2+2]

	Schedule I			Schedule II	
Combinations	X Goods	Y Goods	Combinations	X Goods	Y Goods
A	10	72	G	20	90
B	20	42	H	30	62
C	30	20	I	40	44
D	40	8	J	50	30
E	50	4	K	60	22
F	60	2	L	70	16

a)   Graph schedule I and II and label them by IC_1 and IC_2.

b)   Sketch the budget line when P_X = Rs 80 and P_Y = Rs 40 and consumer's budget = Rs 3,200 and identify that what combination of X goods and Y goods will put the consumer at an optimum point at IC_1?

c)   Let the price of X goods drop to Rs 40 per unit at constant price of Y goods and consumer's budget. Draw the new budget line and identify that combination of X and Y goods will put the consumer at an optimum point at IC_2? Does it reflect price effect?

d)   Let, government impose 40% tax on consumer's income. Draw new budget line at P_X = Rs 40 and P_Y = Rs 40 and also identify what combination of X and Y goods will put the consumer at an optimum point? Does it reflect income effect? Does it prove that price effect is decomposed into income and substitution effects? Give reasons.

17. Consider the following cost schedule. [2+4+4]

Output (Q):	0	1	2	3	4	5	6	7	8	9
Total Cost (TC)	300	330	354	372	396	450	540	672	840	1080

a.   Compute TFC, AFC, AVC and AC.

b.   Using schedule, prove that AC is influenced by the trend of AFC and AVC.

c.   Graph AFC, AVC and AC and prove that AC curve is derived by the vertical summation of AFC and AVC curves.

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FACULTY OF MANAGEMENT

Office of the Dean

2015

Full Marks: 60

Time: 3 Hrs.

BIM / Fourth Semester / ECO 201: Micro Economics

Candidates are required to give their answers in their own words as far as practicable.

Attempt ALL questions

Group "A"

Brief Answer Questions:

[10 × 1 = 10]

1   What is micro dynamics?

2   Write any four determinants of demand?

3.   What are the conditions for consumer's equilibrium?

4   Derive slope of iso-cost line in a geometrical form.

5   Why is SAC U-shaped?

6   Write the relationship between price elasticity of demand and marginal revenue.

7.   What are the causes for raising monopoly?

8   Why does IQ convex to the origin?

9.   A competitive firm is also known as optimum firm. Why?

10   Write any four characteristics of monopolistic competition.

Group "B"

Short Answer Questions:

[6 × 5 = 30]

11.   What is microeconomics? Explain its uses in business decision making.

12.   What is price elasticity of supply? How is it computed by point method on a linear supply curve?

13   What is indifference curve? Describe its properties.

14.   Explain the properties of Cobb-Douglas production function.

15   Explain the relationship between AR and MR.

16   Explain the modern theory of rent.

Group "C"

[2 × 10 = 20]

17. Consider the following cost schedule:

Output:	1	2	3	4	5	6	7	8	9
AVC:	10	9	8	8	10	13.3	17.7	22.5	28.9
AC:	110	59	41.3	33	30	30	32	35	40
MC:	10	8	6	8	18	30	44	56	80

   a) Using the given schedule, explain the relationship between AC and MC.

   b) Graph MC, AC and AVC and examine the positions of the firm at prices of Rs 43, Rs 30 and Rs 18. Does firm reach at shutdown point when price falls to Rs 8? Give reasons.

   c) Derive and define short-run supply curve of a competitive firm.

[4+4+2]

18. (i) Dairy Development Corporation (DDC) has introduced different products i.e. milk, ghee, curd and paneer as joint products since 2002. The figures of total quantity produced of these products in 2013 and 2014 are given below.

Products	2013		2014	
	Price (Rs per unit)	Demand (in units)	Price (Rs per unit)	Demand (in units)
Milk	50	200000	45	300000
Ghee	200	20000	180	28000
Curd	60	50000	80	4500
Paneer	100	1000	120	950

   a. Compute price elasticity of demand for the products of DDC by percentage method.

   b. Suppose that you are appointed as a marketing manager in 2015. The Board of Director of DDC has assigned you to revise existing prices in order to increase total revenue in 2015 on the basis of price elasticity of demand. How do you revise price of each product of DDC to meet this goal. Explain with proper reasons.

[5+5]

Group "A"

Brief Answer Questions: [10 × 1 = 10]

1. Why is microeconomics called price theory?
2. List any four causes which shifts demand curve rightwards.
3. What is price elasticity of demand according to Arc Method?
4. State the conditions of consumer's equilibrium.
5. Prepare a list of characteristics of monopolistic competition.
6. Let (a) $\alpha = 0.7$ and $\beta = 0.7$ and (b) $\alpha = 0.4$ and $\beta = 0.8$. Compute degrees of returns to scale.
7. List any four causes that raise oligopoly.
8. Consider the supply function, $QS_X = a + bP_X$ and define the components.
9. Write any two relationship between MR and price elasticity of demand.
10. Define transfer earnings.

Group "B"

Short Answer Questions: [6 × 5 = 30]

11. Explain micro dynamics. Why is it regarded as most comprehensive study of microeconomic variables?
12. What is indifference curve? Explain its properties.
13. Explain the process of derivation of long run average cost curve (LAC). Why is it U-shaped?
14. How is income elasticity of demand computed in a liner demand curve? Explain.
15. Explain the equilibrium of monopoly firm in long run.
16. State and explain the marginal productivity theory of wages.

Group "C"

Comprehensive Answer Questions: [2 × 10 = 20]

17. Real the following situation and answer the questions asked below:

The basic function of managers of a business firm is to achieve the objective of the firm to the maximum possible extent with the limited resources placed at their disposal. Modern business condition are changing so fast and becoming so competitive and complex that personal business sense, intution and experience alone may not be sufficient to make appropriate business decisions. Managers have to solve operational issues (problems) under the conditions of uncertainty and risk due to uncertain behavior of market forces, changing and business environment. Microeconomics offers concepts, models and tools to solve the operational issues. Thus, the scope of microeconomics in business decision making comprises all these economic concepts, theories and tools which can be used to solve issues related to business operations and to find solutions to practical business problems.

a) Suppose that about a considerable number of companies are operating vegetable farming in Nepal. They are realizing the problems of fluctuations in prices of vegetables at different seasons in a large extent. What, forces of market are responsible to create this problem? Which pricing model would you suggest to solve this problem? Give reasons.

b) All companies set the goal of maximizing output for 2017. However, they are facing the problem of budget constraint. In this situation, which microeconomic tool do you suggest to achieve the goal? Give reasons. [5+5]

18. Consider the production function, $Q = 14L + 7L^2 - L^3$.

   a. Compute TP, AP and MP, graph them and explain three stages of production. Point out the causes for the operation of these stages of production.

   b. Explain the relationship between TP and MP by using output schedule.[(1.5+1.5+3+2)+2]