**THE ECONOMY OF THE FIRM**

1. The nature of the firm. Explain why firms exit.
2. Explain Coasian theory of the firm.
3. Explain Williamsons theory of the firm
4. A complete and incomplete contracts. Bounded ratioanlity, adverse selection, moral hazard.
5. Forms of Business Ownership: Sole propriertorship.
6. Forms of Business Ownership: Partnership.
7. Forms of Business Ownership: Corporation.
8. Concepts of competition. When the firm is considered to be competitive?
9. Firm demand under perfect competition. Draw the graph.
10. Explain and show in the graph individal firm’s supply curve under perfect competition.
11. Explain perfect competition in the long-run.
12. Explain the performance of the firms under perfect competitive market according the following graphs.



1. Explain the following graph under perfect competitive market and calculate the profit of the firm.



1. Explain the following graph under perfect competitive market and calculate the profit of the firm.



1. Market demand is given by Q = 64 – 4P, where P is the market price and Q is the total output of the industry. The industry is perfectly competitive and is made of N identical firms. Each firm’s cost function is given by Ci = 16+ qi2 for qi > 0 and C = 0 for qi = 0. Obtain the individual supply function f of a single firm as well as the market supply function. What is the market equilibrium for a given number of firms N? How many firms are there in the market in the long run equilibrium?
2. Market demand is given by Q = 144 – 2P, where P is the market price and Q is the total output of the industry. The industry is perfectly competitive and is made of N identical firms. Each firm’s cost function is given by Ci = 25+ qi2 for qi > 0 and C = 0 for qi = 0. Obtain the individual supply function f of a single firm as well as the market supply function. What is the market equilibrium for a given number of firms N? How many firms are there in the market in the long run equilibrium?
3. Market demand is given by Q = 64 – P, where P is the market price and Q is the total output of the industry. The industry is perfectly competitive and is made of N identical firms. Each firm’s cost function is given by Ci = 36+ qi2 for qi > 0 and C = 0 for qi = 0. Obtain the individual supply function f of a single firm as well as the market supply function. What is the market equilibrium for a given number of firms N? How many firms are there in the market in the long run equilibrium?
4. Market demand is given by Q = 64 – 6P, where P is the market price and Q is the total output of the industry. The industry is perfectly competitive and is made of N identical firms. Each firm’s cost function is given by Ci = 16+ qi2 for qi > 0 and C = 0 for qi = 0. Obtain the individual supply function f of a single firm as well as the market supply function. What is the market equilibrium for a given number of firms N? How many firms are there in the market in the long run equilibrium?
5. Explain double declining balance method of depreciation of firms’ assets.
6. Explain straight-line method of depreciation of firms’ assets.
7. Explain sum of the years’ digits method of depreciation of firms’ assets.
8. An asset costing $20,000 has estimated useful life of 5 years and residual value of $4,500. Calculate the depreciation of its life using double declining balance method.
9. An asset costing $45,000 has estimated useful life of 15 years and residual value of $30,000. Calculate the depreciation of its life using straight line method.
10. Use sum of the years' digits method of depreciation to prepare a depreciation schedule of the following asset:

Cost $50,000

Residual Value $5,000

Useful Life in Years 4

1. Explain Oligopolistic market and types of Oligopoly.
2. Explain what is cartel and why they are illegal? State possible penalties for cartels.
3. Main features of Oligopolies.
4. Explain Kinked demand curve.
5. Explain dominant firm positioning in oligopoly.
6. Prisoner’s Dilemma and its application to business decisions.
7. Cournot and Stackelberg models of Oligopoly
8. Compare Cournot and Stackelberg models and draw the graphs.
9. Market demand is Q=48-P. there are 2 firms. Firm 1 has a constant unit cost of production equal to 6 and firm 2 has a constant cost of production equal to 6+a, a>0. How does firm1’s output change with a?
10. Market demand is Q=76-P. there are 2 firms. Firm 1 has a constant unit cost of production equal to 4+a and firm 2 has a constant cost of production equal to 3, a>0. How does firm1’s output change with a?
11. The inverse demand function is P=65-Q. Firm 1 has a constant unit cost of production equal to 3 and firm 2 has the following cost function C=5+5q2+q22. What is Cournot equilibrium and the Stackelberg equilibrium? Draw the reaction functions of the firms and show necessary points.
12. The inverse demand function is P=78-Q. Firm 1 has a constant unit cost of production equal to 6 and firm 2 has the following cost function C=4+3q2+q22. What is Cournot equilibrium.
13. The inverse demand function is P=82-Q. Firm 1 has the following cost function C=3+6q1+q12 , Firm 2 has a constant unit cost of production equal to 7. What is the Stackelberg equilibrium if firm 1 moves first?
14. The inverse demand function is P=56-Q. Firm 1 has the following cost function C=2+4q1+q12 , Firm 2 has a constant unit cost of production equal to 6. What is the Stackelberg equilibrium if firm 2 moves first?
15. Define Merger and Acquisitions. Explain their categories.
16. Explain reasons for Mergers and Acquisitions.
17. The steps for M&A. Overall process.
18. The reasons for mergers to fail. Problems in achieving success.
19. Legal and regulatory considerations with mergers. Merger agreement. Representation and Indemnification
20. Explain due diligence process during merger and acquisitions.
21. The inverse demand function is P=52-Q. Firm 1 has a constant unit cost of production equal to 5 and firm 2 a constant unit cost of production equal to 8. What are Cournot equilibrium and the Stackelberg equilibrium? Draw the reaction functions of the firms and show necessary points.
22. The demand function is Q=76-P. Firm 1 has a constant unit cost of production equal to 6 and firm 2 a constant unit cost of production equal to 3. What is Cournot equilibrium and the Stackelberg equilibrium? Draw the reaction functions of the firms and show necessary points.
23. The demand function is Q=102-P. Firm 1 has a constant unit cost of production equal to 4 and firm 2 a constant unit cost of production equal to 11. What is Cournot equilibrium and the Stackelberg equilibrium? Draw the reaction functions of the firms and show necessary points.
24. The demand function is Q=84-P. Firm 1 has a constant unit cost of production equal to 12 and firm 2 a constant unit cost of production equal to 7. What is Cournot equilibrium and the Stackelberg equilibrium? Draw the reaction functions of the firms and show necessary points.
25. The demand function is Q=67-P. Firm 1 has a constant unit cost of production equal to 3 and firm 2 a constant unit cost of production equal to 9. What is Cournot equilibrium and the Stackelberg equilibrium? Draw the reaction functions of the firms and show necessary points.
26. Company Sales(thousands of dollars)

Company A - 750 Company E - 125

Company B - 500 Company F - 135

Company C - 250 Company G - 125

Company D - 125 Company H - 125

Companies C, F and H decide to merge. are proposing to merger. What is new HHI index if the merger takes place? What is the decision of Federal Trade Commission?

1. Financial performance analysis of the firms.
2. Explain BCG matrix.
3. ABC company is considering the purchase of testing equipment that will cost $500,000 to replace old equipment. Assume the new machine will generate after-tax savings of $250,000 per year over the next four years. If r is 15% , what’s Net Present Value of the investment?
4. Explain Strategic planning.
5. Firm’s marketing strategies.
6. An industry is made up of 8 firms with the following percent market shares: 29, 20, 11, 10, 9, 8, 7, 6. What is the HHI index in this industry? The firm with 8 and 7 percent market share are proposing to merger. What is new HHI index if the merger takes place? What is the decision of Federal Trade Commission?
7. Explain the HHI index and general rules by Federal Trade Commision.
8. Capital budgeting tools. Net Present Value, Payback- Period, Profitability index and Accountability index.
9. The ABC Corporation is considering an investment that will cost $80000 and have a useful life of 4 years. During the first 2 years, cash flows are $25000 per year and for the last 2 years they are $ 20000 per year. What is the payback period for this investment?
10. Financial performance analysis of the firms and its significance.
11. Calculate the HHI of an industry with the following distribution of sales: 40%, 25%, 3%, 35%. The firm with 3 and 35 percent market share are proposing to merger. What is the decision of Federal Trade Commission?
12. Explain BCG matrix.
13. A project with a 3 year life and a cost of $26,000 generates revenues of $9,000 in year 1, $17,000 in year 2, and $18,000 in year 3. If the discount rate is 3%, what is the NPV of the project?
14. Compare these 2 projects. Find NPV. And decide which of the to choose.

|  |  |  |  |
| --- | --- | --- | --- |
| Year | Cash Flow ($) | Discount factor 5.3% | PV |
| 0 | -800000 |  |  |
| 1 | 230000 |  |  |
| 2 | 35000 |  |  |
| 3 | 400000 |  |  |
| 4 | 140000 |  |  |
| 5 | 180000 |  |  |
| 6 | 250000 |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Year | Cash Flow ($) | Discount factor 5.3% | PV |
| 0 | -500000 |  |  |
| 1 | 120000 |  |  |
| 2 | 14000 |  |  |
| 3 | 700000 |  |  |
| 4 | 250000 |  |  |
| 5 | 270000 |  |  |
| 6 | 300000 |  |  |

1. The sales in the industry are as follows: $200000, $600000, $100000, $800000, $700000. Find HHI index and C4. The firms with $600000and $100000 sales supposed to merge. Explain the decision of Federal Trade Commission.
2. Determine the net present value for a project that costs $110,000 and would yield after-tax cash flows of $16,000 the first year, $18,000 the second year, $15,000 the third year, $14,000 the fourth year, $23,000 the fifth year, and $33,000 the sixth year. Your firm's cost of capital is 6%.
3. Company Sales(thousands of dollars)

Company - 340 Company E - 90

Company B - 200 Company F - 140

Company C - 12 Company G - 125

Company D - 136 Company H - 125

Companies E, and H decide to merge. are proposing to merger. What is new HHI index if the merger takes place? What is the decision of Federal Trade Commission?

1. Explain liquidity and activity ratios
2. Two projects are given. The first project is expected to yield cash flows of £15,000 annually for the next 4 years. The initial cost of the investment is £14,000. The second project is expected to yield cash flows of £12,000 annually for the next 6 years. The initial cost of the investment is £19,000. Compare these 2 projects and explain which is more worthwhile by calculating accounting rate of return.
3. Auctions, their types and bidding process
4. Explain net present value and calculate the following problem:

A project with a 15 year life and a cost of $200,000 generates revenues of $22,000 each year. If the discount rate is 7%, what is the NPV of the project?

1. The sales in the industry are as follows: $220000, $300000, $120000, $80000, $650000. Find HHI index and C4. The firms with $220000 and $80000 sales supposed to merge. Explain the decision of Federal Trade Commission.
2. Explain profitability index and calculate the following problem:

Company A is undertaking a project at a cost of $45 million which is expected to generate future net cash flows with a present value of $75 million. Calculate the profitability index.

1. Compare these 2 projects. Find NPV. And decide which of them to choose.

|  |  |  |  |
| --- | --- | --- | --- |
| Year | Cash Flow ($) | Discount factor 3.4% | PV |
| 0 | -800000 |  |  |
| 1 | 230000 |  |  |
| 2 | 45000 |  |  |
| 3 | 330000 |  |  |
| 4 | 140000 |  |  |
| 5 | 200000 |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Year | Cash Flow ($) | Discount factor 3.4% | PV |
| 0 | -600000 |  |  |
| 1 | 120000 |  |  |
| 2 | 17000 |  |  |
| 3 | 700000 |  |  |
| 4 | 250000 |  |  |
| 5 | 320000 |  |  |

1. The ABC Corporation is considering an investment that will cost $120000 and have a useful life of 6 years. During the first 3 years, cash flows are $25000 per year and for the 4th year 32000 and for the last two years they are $ 20000 per year. What is the payback period for this investment?