PART A

Answer any 3 Questions. Each carries 10 Marks.

1. Define marginal utility. Explain the Law of diminishing marginal utility with diagram.
2. Explain Production possibility frontier with diagram. Also write a note on opportunity cost.
3. a. Explain the concept of equilibrium. (4)
   b. Write notes about the following (3)
      i) Elasticity of Demand.
      ii) Factors affecting demand.
4. a. Diagrammatically explain the Law of Variable Proportions. (5)
   b. Assume the production function \( Q = 2L^{\frac{1}{2}} K^{\frac{1}{2}} \) (5)
      i) If \( L = 100, K = 200 \), what is the maximum quantity that can be produced?
      ii) If the firm changes the amount of labour and capital by 10 times what will happen to the output? Why?

PART B

Answer any 3 Questions. Each carries 10 Marks.

5. Compare the market situation of perfect competition with monopoly
6. a. Explain break even analysis with diagram. (4)
   b. If a company has the following details
      Fixed cost = Rs. 40,00,000
      Variable cost per unit = Rs 100
      Selling price per unit = Rs 200
      Calculate i) Break even quantity. (2)
      ii) If the actual production quantity is 1,20,000, what will be the profit? (4)
7. Discuss Circular flow of income in a two sector economy with diagram.
8. a) Explain the methods of national income calculation. (8)
   b) What is the implication of the following statement? (2)
      GNP is Rs. 58, 33,558 crore and NNP is Rs. 55, 01,067 crore.

PART C

Answer any 4 Questions. Each carries 10 Marks.

9. a) From the following data choose the best project based on payback period. (6)
Capital cost:

<table>
<thead>
<tr>
<th></th>
<th>Project A</th>
<th>Project B</th>
</tr>
</thead>
<tbody>
<tr>
<td>15,000</td>
<td>15,000</td>
<td></td>
</tr>
</tbody>
</table>

Cash flows (saving before depreciation but after taxes)

<table>
<thead>
<tr>
<th></th>
<th>Project A</th>
<th>Project B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>5000</td>
<td>4000</td>
</tr>
<tr>
<td>2 year</td>
<td>5000</td>
<td>4000</td>
</tr>
<tr>
<td>3 year</td>
<td>5000</td>
<td>4000</td>
</tr>
<tr>
<td>4 year</td>
<td>2000</td>
<td>3000</td>
</tr>
<tr>
<td>5 year</td>
<td>1500</td>
<td>2000</td>
</tr>
<tr>
<td>6 year</td>
<td>1500</td>
<td>8000</td>
</tr>
</tbody>
</table>

b) What are the limitations of payback method? (4)

10. A company is considering the purchases of new machine. Two alternative models are available. Earnings after taxation are expected to be as follows.

(Cash inflows Rs.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Model A</th>
<th>Model B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8000</td>
<td>24000</td>
</tr>
<tr>
<td>2</td>
<td>24000</td>
<td>32000</td>
</tr>
<tr>
<td>3</td>
<td>32000</td>
<td>40000</td>
</tr>
<tr>
<td>4</td>
<td>48000</td>
<td>24000</td>
</tr>
<tr>
<td>5</td>
<td>32000</td>
<td>16000</td>
</tr>
</tbody>
</table>

If the total investment of model A is Rs. 80000 and model B is Rs. 70000, which alternative company will select on the basis of ARR of two models?

11. Distinguish risk and uncertainty situations. Explain about the decision making under uncertainty.

12. a) What is meant by demand forecasting? (2)

b) Explain
   i) Trend projection method. (5)
   ii) Delphi method. (3)

13. a) What are the uses and limitations of a balance sheet? (5)

b) Distinguish between money market and capital market. (5)

14. a) What is foreign direct invest? (4)

b) Distinguish between direct tax and indirect tax. (6)
PART A

Answer any three Questions. Each carries 10 marks

1. a) State and illustrate the concept of equilibrium price
   b) What are the fundamental economic problems
2. Explain the law of diminishing marginal utility with its assumptions
3. Explain a) Marginal cost b) Marginal Revenue
c) Sunk cost d) Opportunity cost e) Private and social cost
4. a) What are the different types of elasticity?
   b) What are the methods of measuring elasticity?

PART B

Answer any three Questions. Each carries 10 marks

5. Consider the following data of a company for the year 2015
   Sales = Rs. 80,000, Fixed Cost = Rs. 15,000, Variable cost = Rs. 35,000

6. a) ‘A firm under monopolistic competition will get only normal profit in the long run’. Substantiate the statement with illustrations
   b) What are the features of perfect competition
7. What are the causes and effects of inflation?
8. a) Explain Fisher’s equation to the quantity theory of money
   b) What are the quantitative methods of credit control?

PART C

Answer any four Questions. Each carries 10 marks

9. a) What is payback period? How we analyse a business project in payback period method?
   b) What are the merits and demerits of payback method?
10. a) Explain the IRR method of project analysis
    b) Explain the profitability index method
11. What are the qualitative and quantitative techniques of demand forecasting?
12. a) Distinguish between FPI and FDI
b) What are the internal sources of capital? (5)

13 a) What is a balance sheet? (5)
b) What are the steps in capital budgeting? (5)

14 a) Write about the canons of taxation (5)
b) List out the advantages and disadvantages of direct and indirect taxes (5)

****
PART A

Answer any three questions, each carries 10 marks.

1. a) Examine the meaning and scope of Business Economics
   b) Suppose an economy’s production is at a point inside its PPC. What does it mean? Draw a diagram and explain.

2. a) Define total utility and marginal utility. Suppose a boy consume more and more ice creams. Prepare a hypothetical total utility schedule and derive marginal utilities from it.
   b) What are the central problems of an economy?
   c) What is opportunity cost?

3. a) How is equilibrium price of a commodity determined? Suppose the number of buyers of a commodity increases. How does it affect market demand and equilibrium price? Draw a diagram and explain.
   b) Suppose the finance minister increases the tax on those commodities where demand is highly elastic. What happens to total tax revenue? Why?

4. a) What is a production function? Distinguish between fixed proportion and variable proportion.
   b) Suppose the production function is given as \( Q = 3L^{1/2}K^{1/2} \). Find average and marginal product of labour when \( L \) (labour) equals 9 and \( K \) (capital) equals 4.

PART B

Answer any three questions, each carries 10 marks.

5. a) Complete the following short run cost schedule. Cost is given in rupees.

<table>
<thead>
<tr>
<th>Output(units)</th>
<th>TC</th>
<th>TFC</th>
<th>TVC</th>
<th>MC</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>100</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>1</td>
<td>----</td>
<td>----</td>
<td>50</td>
<td>----</td>
</tr>
<tr>
<td>2</td>
<td>----</td>
<td>----</td>
<td>40</td>
<td>----</td>
</tr>
</tbody>
</table>

   b) Derive the relation between MC and AVC in the short run with the help of a diagram.

6. a) What is perfect competition? Demand curve facing a firm under perfect competition is perfectly elastic. Why?
   b) Suppose the PV Ratio of a firm is given as 0.25 and its total fixed cost is Rs. 10,000/-. What is the break-even sales of the firm? If the actual sales is Rs. 60,000/-, what is the margin of safety?

7. a) What is inflation? What are the fiscal policy measures to control inflation?
   b) What is repo rate? How does RBI use it as a measure to control inflation?

8. a) National income of a country is given as 2850. If the annual depreciation is 300, net factor income from abroad -50 and net indirect tax 100, estimate GDP_{MP}. (All figures are
given in Rs.000, crores).

b) What are the difficulties in the measurement of national income. (4)

**PART C**

*Answer any four questions, each carries 10 marks.*

9 a) Suppose the initial investment on a project is estimated as 25000 and the cost of capital is 10 per cent. Estimate the NPV of the future cash flows after tax given below and state weather the project will be accepted or not.

Year | 1 | 2 | 3 | 4 | 5  
--- |--- |--- |--- |--- |---  
Cash flows | 9000 | 8000 | 7000 | 6000 | 5000  

b) Give any two merits and limitations of NPV method. (4)

10 a) Suppose an investor wants to decide whether to build a small facility, medium facility or large facility in a situation of uncertainty. The payoff table (in $ 000) of the project is given below. Which alternative will be selected according to Maximin, Maximax and Laplace principles. State clearly the reason for each selection.

<table>
<thead>
<tr>
<th>Possible future demand</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small facility</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Medium facility</td>
<td>6</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Large facility</td>
<td>1</td>
<td>3</td>
<td>14</td>
</tr>
</tbody>
</table>

b) What do you mean by a risky situation in business? How is decision taken under risk? (4)

11 What is cost benefit analysis? Give any two limitations of cost-benefit analysis. (10)

12 a) Distinguish between foreign direct investment and foreign portfolio investment. (5)

b) Give any three disadvantages of foreign investment. (3)

c) What do you mean by current liabilities in a balance sheet? (2)

13 The data given below shows the sales of cars in a showroom from 2012 to 2016. Develop a trend equation and predict the sales for the years 2017 and 2018.

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale</td>
<td>85</td>
<td>92</td>
<td>89</td>
<td>105</td>
<td>108</td>
</tr>
</tbody>
</table>

14 a) What is a money market? Give any four functions of money market. (6)

b) What is GST? (4)
APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
THIRD/FOURTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018

Course Code: HS200
Course Name: BUSINESS ECONOMICS

Max. Marks: 100
Duration: 3 Hours

PART A
Answer any three questions, each carries 10 marks.

1. a) With the help of a figure demonstrate the relationship between total and marginal utility. (5)
   b) Marginal analysis is the basis for several theories in Business Economics. Do you support this view? (5)

2. a) Mention the relevance of the concept of scarcity in business economics. (5)
   b) Mark the point on a graph of the PPC, showing underutilization of resources. Using the PPC, explain the concept of trade off. (5)

3. a) If the production function of a firm is \( Q = 10 L^{1/2}K^{1/2} \), find out the maximum output that can be produced, if 144 units of labour is combined with 169 units of capital. Also calculate the average and marginal product of labour from the function. (5)
   b) In July, Parle sold 40,000 bottles of their mango juice when the price of Tropicana was Rs.35 per bottle. In August, they sold 45,000 bottles when the price of Tropicana was Rs.40. Calculate the cross elasticity of demand of mango juice for Parle. (5)

4. a) State and explain the law of variable proportions (4)
   b) The following schedule shows the number of laptops purchased by offices and homes at different market prices.

<table>
<thead>
<tr>
<th>Price(Rs)</th>
<th>purchased by offices(units)</th>
<th>Purchased by homes(units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50000</td>
<td>3400</td>
<td>2500</td>
</tr>
<tr>
<td>55000</td>
<td>3300</td>
<td>2100</td>
</tr>
<tr>
<td>60000</td>
<td>3200</td>
<td>1600</td>
</tr>
<tr>
<td>65000</td>
<td>3100</td>
<td>1200</td>
</tr>
</tbody>
</table>

   As the price of laptops increases from 55000 to 60000, what is the price elasticity of demand for (i) offices and (ii) homes? (6)

PART B
Answer any three questions, each carries 10 marks.

5. a) Define average and marginal revenue. With the help of a figure demonstrate the relationship between average and marginal revenue. (6)
   b) Distinguish between Perfect Competition and Monopoly. (4)

6. a) Draw a diagram showing AFC, AVC and TC curves. (4)
   b) A small-scale company, engaged in the production of manufacturing biodegradable carry bags has total sales of Rs. 20000. Its fixed cost is Rs. 6000, while its variable cost is at Rs.12000. Calculate (i) the P/V ratio (ii) breakeven point (iii) Margin of safety at this level of sales (iv) If it sells each bag for Rs.5, how many bags should the company sell to break even? (v)Find out the sales required to earn a profit of Rs. 4000. (6)

7. a) Examine the various phases of a trade cycle. Draw a neat diagram to substantiate (5)
your view.

b) Define GNP, NNP, NI, PI and DPI. (5)

8 a) Examine the various functions of the Reserve Bank of India. (5)
b) A mobile manufacturing company makes Rs.100000 every day by selling them. During this time, the machinery of the company depreciates by 10000. The company pays GST of Rs.6000, gives the owner Rs. 40000 and retains Rs. 44000 for its expansion activities. The owner pays Rs. 45000 as income tax from his income. Compute the firm’s contribution to the following measures of national income. (i) GDP (ii) NDP (iii) NI (iv) Personal income (v) Disposable Personal income.

PART C

Answer any four questions, each carries 10 marks.

9 a) What is Capital budgeting? (4)
b) The following table gives the annual sales and cost for two machines, which a company is planning to purchase. Machine A costs 2,60,000 while machine B costs Rs. 90,000.

<table>
<thead>
<tr>
<th></th>
<th>Machine A</th>
<th>Machine B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1,70,000</td>
<td>1,70,000</td>
</tr>
<tr>
<td>Raw Materials</td>
<td>60,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Labour</td>
<td>15,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Electricity</td>
<td>30,000</td>
<td>20,000</td>
</tr>
</tbody>
</table>

Use the payback method to determine which machine the company should buy?

10 a) Define payback period and average rate of return. (4)
b) Examine the various sources of capital for a business firm. (6)

11 a) What is cost benefit analysis? Mention the difficulties encountered while carrying out this analysis. (4)
b) A project has been started by a company with an initial investment of Rs. 10,00,000. The company gets a cash inflow of Rs. 2,00,000 in year 1, Rs. 2,00,000 in year 2, Rs. 3,00,000 in year 3, Rs. 2,00,000 in year 4, and Rs. 3,50,000 in year 5. The cost of capital for the firm is 10 percent. Use the NPV method to determine whether the company should go ahead with the project. (6)

12 a) What is the balance sheet? Distinguish between assets and liabilities. (5)
b) What is the money market? What are the various instruments in the money market? (5)

13 a) Mention the canons of taxation. (4)
b) The following table gives the demand of a company for five years. Use the trend method to project the demand for the years of 2018, 2019 and 2020.

<table>
<thead>
<tr>
<th>Year</th>
<th>Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>200</td>
</tr>
<tr>
<td>2014</td>
<td>220</td>
</tr>
<tr>
<td>2015</td>
<td>210</td>
</tr>
<tr>
<td>2016</td>
<td>230</td>
</tr>
<tr>
<td>2017</td>
<td>210</td>
</tr>
</tbody>
</table>

14 a) What are the major techniques used in forecasting? (6)
b) What is FII? Mention its disadvantages. (4)