UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Micro Economics　　　　　　　　　　　　　　**Semester: I**
Program: BBA (A&BD)　　　　　　　　　　　　　　　　**Time: 3 Hours**
Course code: ECON1001　　　　　　　　　　　　　　**Max. Marks: 100**
Instructions: Mentioned under each section.

	SECTION A　　　　　　　　　　　　　　　　　**20 marks**		
Please only write a/b/c/d as an answer.			
	Statement of question	**Marks**	**CO**
1	Long run average cost (LRAC) curve shows the 　　a. Minimum cost of producing various levels of output within a particular plant 　　b. Minimum cost of producing various levels of output when plan size can be varied 　　c. Profit maximizing levels of output 　　d. Change in TC of producing various levels of output when all inputs can be varied.		
2	A perfectly competitive firm would shut down if 　　a. AVC < AR　　b. AVC > AR　　　　c. AVC = MC　　　　d. AVC < MC	**2**	**CO2**
3	In a perfectly competitive market, a firm in the long run operates at 　　　　a.　AC = MC　　　b. AR = MR　　c. MR=MC　　d. P=AR=MR=AC=MC 　　b.	**2**	**CO2,3**
4	In case of super normal profit, position of AC curve is 　　a. Above price line 　　b. Below price line 　　c. Tangent to price line 　　d. Parallel to price line	**2**	**CO2,3**
5	Formation of monopoly due to economies of scale is known as: 　　a. A natural barrier　　　　b. A legal barrier 　　c. A structural barrier　　　d. An efficiency barrier	**2**	**CO1**
6	For a monopolist firm, slope of AR is 　　a. Equal to slope of MR 　　b. Twice the slope of MR 　　c. Half of the slope of MR 　　d. Perfectly elastic AR	**2**	**CO1**
7	If $MP_L > AP_L$, then AP_L is 　　a. Decreasing　　b. Constant　　c. Increasing　　d. Zero	**2**	**CO2**

8	Analyzing the effect of change in gas prices on its demand keeping other factors constant falls under the study of
	   a. General equilibrium analysis b. Microeconomics c. Macroeconomics
	   b. Normative economics
		2	**CO1**

9	Which of the following is not a long run concept? a. Expansion path b. Isoquant c. Law of variable proportion d. Returns to scale	**2**	**CO1**

10	Which of the following is valid for liner indifference curves?
	   a. Goods are perfect complements **b**. goods are perfect substitutes
	   c. MRS for such curves is an increasing ratio **d.** MRS for such curves is in decreasing ratio
		2	**CO1**

	SECTION B **20 marks**		
	(Short answer type questions; Do not write more than 2-3 sentences)		
1.	Mention two conditions for producer equilibrium.	**2**	**CO2**
2.	Why does Marginal cost curve fall and rises sharply then Average cost curve?	**2**	**CO2**
3.	How much market share will each firm have when both the firms are in equilibrium in Cournot's model?	**2**	**CO2,3**
4.	Can two indifference curves intersect each other? Why.	**2**	**CO1**
5	Mention two distinct features of 'monopolistic competition' that separates it from rest of the market structures.	**2**	**CO1,2**
6.	Why do we study perfect competition? Is perfect competition possible in real world?	**2**	**CO2**
7	What do you understand by term 'rational behaviour'	**2**	**CO1**
8	It is difficult to enter an industry in monopolistic competition? Why?	**2**	**CO2**
9	Is monopoly possible in modern economic world? How?	**2**	**CO1**
10.	Define 'marginal rate of substitution'.	**1**	**CO1**

	SECTION-C **30 marks**		
	(Attempt any 5 questions. Do not write more than one and a half page of answer script)		
1.	"The short run production function shows the maximum output a firm can produce when only one of its inputs can be varied, other inputs remaining fixed". Explain while stating the most economic region of production and the reason for the same.	**6**	**CO1,2**
2.	Define Indifference curve. Can it be elliptical in shape?	**6**	**CO2,3**
3	Complete the following table on the basis of the figures given: | Output	TC	TFC	TVC	AFC	AVC	AC	MC
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2

0						
1	200	100				100
2	290			95		
3					123	
4					110	71
5						80
6		420	20	84	103.8	
7	751				107	128
8		801				
9	1098	998				197
10			10	123.2		

4.	How is concept of 'selling cost' different from 'production cost' in case of monopolistic competition. Why is selling cost important in monopolistic competition?	**6**	**CO2,3**
5.	State the difference between 'Decrease in demand' and 'Contraction in Demand' with the help of diagram.	**6**	**CO1,2**
6.	How will a firm decide on the price and quantity in perfect competition? State assumption of the perfectly competitive market.	**6**	**CO1,2**

SECTION-D   **30 marks**

All the questions are compulsory

1	"If there is increase in the price of small cars (say Alto 800) by Maruti, others (Hyundai-Eon, Tata-Nano, Chevrolet–Beat, Nissan-Dastun), may not follow; and if there is decrease in the price of small cars segment by Maruti (Alto 800), other firms in small car segment (mentioned above) may follow". What shape of demand curve will emerge in such situation? Which market structure this situation refers to? How producer does attain equilibrium in such situation?	**15**	**CO1, 2, 3, 4**
2	**Case Study** DeBeers is a South Africa based company that, until the late 1990s, had a near monopoly on the sale of diamonds worldwide. DeBeers had exclusive rights to mining in Africa, producing about 80 per cent of the quantity and over 95 per cent of the dollar		**CO2,3, 4**

value of diamonds worldwide. Most diamonds were sold through its London office. By effectively managing a cartel of the major producers in Africa, DeBeers maximized profits by reducing the quantity of diamonds sold, thereby raising prices. As one might expect, as a near monopolist in the market for newly minded diamonds, DeBeers made enormous profits for many years.

New developments since that time have threatened DeBeer's monopoly. DeBeers also had the rights to sell diamonds mined in the Soviet Union. However, when the Soviet Union collapsed, DeBeers was unable to enforce those agreements. The flow of Russian diamonds increased dramatically, outside of DeBeers's control. Several jewelry companies, including Tiffany integrated backward into mining to avoid acquiring diamonds from DeBeers. In 2004 Namibia passed a law requiring miners to sell a percentage of their diamonds to local polishers, also outside of DeBeer's influence. Other African nations were increasingly challenging the dominance of DeBeers over the distribution and sale of such a valuable commodity mined in their countries. DeBeers's market share has gradually decreased over time.

A new development may be of even greater concern for DeBeers; synthetic diamonds. Natural diamonds are formed when carbon is under intense pressure under the Earth's surface of hundreds of millions of years. Recently, scientists have discovered how to create diamonds in less than a week by putting carbon under extremely high pressure in a laboratory. The first synthetic diamonds were deemed poor substitutes for natural diamonds in jewelry, but they did prove to be excellent substitutes in industrial applications (where diamonds are used for cutting because of their extremely hard surface). By 2007, synthetic diamonds had captured 90 per cent of the industrial diamond market from DeBeers. Worse still for DeBeers, makers of synthetic diamonds have improved their products to such an extent that they are now often indistinguishable from natural diamonds, even to professional jewelers.

It will be interesting to see what effects synthetic diamonds will have on the market for diamonds in jewelry. Currently, most jewelers and customers have a strong preference for natural diamonds, even though synthetic ones are chemically identical and indistinguishable. Apparently, the 'authenticity' of natural diamonds still as sentimental value. The market price of synthetic diamonds for jewelry is about 30 per cent of the price of the natural diamonds. However, preferences may change over time as consumers become more accustomed to synthetic diamonds and see that they are functionally equivalent and much cheaper. If that happens, DeBeers will lose a large part of its market power. DeBeers still control a large fraction of the supply of natural diamonds, but it may be forced to dramatically cut prices (and increase output it is willing to sell) in order to meet the new competition.

(Microeconomics by David Besanko & Ronald Braeutigam; Chapter 11, Applications 11.1pp.443)	3
Answer the following questions based on case study:	
1. State the type of market structure is DeBeers operates the case study. What are the main features of this market structure?	2
2. On what principle will De Beers decide the quantity to be produced and price to be charged?	6
3. DeBeers is earning what kind of profits in the case? Explain with the help of diagram.	
4. Explain the factors are affecting market share of DeBeers? Will this have any effect on profit of DeBeers over a period of time?	4