PRINCIPLES OF MICROECONOMICS (HSS – 1021)

ASSIGNMENT – I

BRANCH: CSE (N/O/P/Q/R) – 1ST SEM B.TECH – AUGUST-2019

DATE OF ASSIGNMENT GIVEN: - 07/SEPT/2019 (03.00PM)

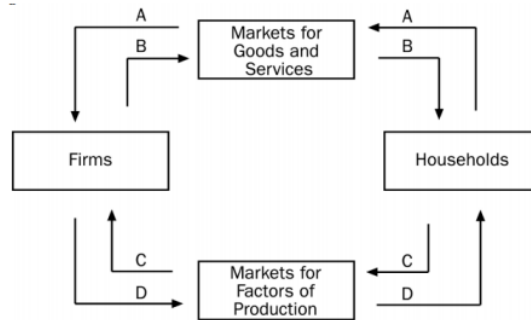**DATE & TIME OF ASSIGNMENT SUBMISSION: - In the Class as per the schedule**

SCEDULE FOR SUBMISSION OF ASSIGNMENT - I			
SECTION	BRANCH	DATE	DAY
CSE	N	16.09.19	MONDAY
CSE	O	16.09.19	MONDAY
CSE	P	13.09.10	FRIDAY
CSE	Q	14.09.19	SATURDAY
CSE	R	14.09.19	SATURDAY

1. Stalin buys a 2000 model Maruti Alto for Rs. 75,000. He plans to restore and sell the car. He goes on to spend Rs. 25,000 restoring the car. At this point he can sell the restored car for Rs. 1,10,000. With the help of the principles of economics you have studied, analyse, whether Stalin would restore the car or not?

2. A typical society strives to get the most it can from its scarce resources. At the same time, the society attempts to distribute the benefits of those resources to the members of the society in a fair manner. Will the typical society is able to achieve these two goals? Explain with the help of the basic principles of economics you have studied.

3. Ramesh decides to spend two hours working overtime rather than watching a video with his friends. He earns Rs. 250 an hour. Find the opportunity cost of working for overtime.

4. Assume an economy consists of two persons, Brijesh and Mohan. Both require rice and cloth and therefore, produce both commodities. Brijesh can produce 10kg of rice or 2.5 clothes in 1 hour. Similarly, Mohan produces 2.5 kg of rice or 10 clothes in same 1 hour. Both of then worked for 4 hours for production of both commodities. Using the principle 'Trade makes everyone better off', analyse how both Brijesh and Mohan will be better off if they resort to trade.

5. You like chocolate. Your utility function for chocolate given by the following function:
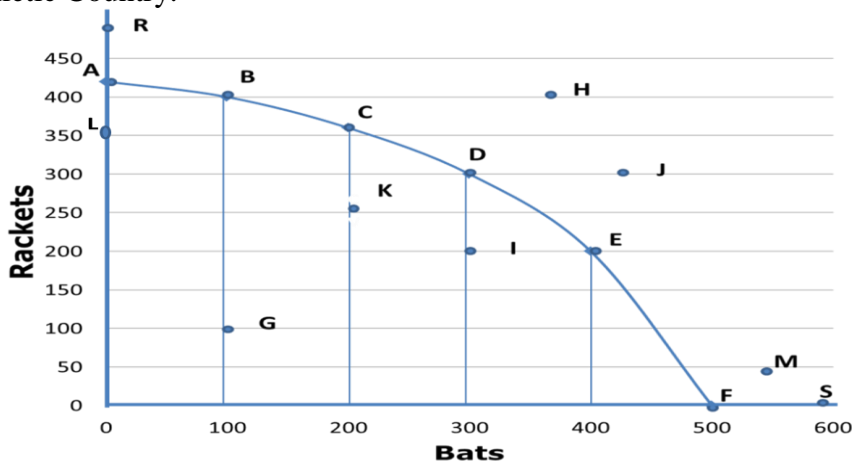 $U = 36X - 1.5X^2$
   Where, X is the number of chocolates consumed and U is measured in rupees. The price of chocolate is Rs.6 per unit.
   (a) If you consume chocolate ranging from 1 to 12, calculate schedule of total utility you derive.
   (b) Calculate the marginal utility schedule corresponding to total utility schedule derived at (a) above.
   (c) Utilising the principle of rational people think at margin, determine how many chocolates you will consume at this price.

6. One trade off society faces is between efficiency and equality. Define each term. If the U.S. government redistributes income from the rich to the poor, explain how this action affects equality as well as efficiency in the economy.

7. Basing on the diagram, answer the questions given below.

a) Which arrow represents the flow of goods and services?
b) Which arrow shows the flow of land, labour, and capital?
c) Which arrow shows the flow of factor incomes?
d) Which arrow represents the flow of spending by households?

8. Imagine a hypothetical economy where there is one firm, i.e., Mother Dairy and one household. Mother Dairy hired 10 labourers at the prevailing wage rate of Rs. 200 per day and borrowed Rs. 20 lakh at an interest rate of 10% per annum. Mother Dairy produces 31000 litres milk per annum and sells it at a price of Rs. 30 per litre.
   a) Represent the interrelationship between the consuming and producing sector of the above hypothetical economy through circular flow diagram.
   b) What is the amount of financial flow coming to producing sector during a year?
   c) If Gross Domestic Product of the economy is defined as the sum of all factor payments during a year, estimate GDP for the hypothetical economy for a year.

9. The following curve provides information about the production possibilities frontier of Athletic Country.

a) Are there any non-feasible production points? If so, what are they and why are they non-feasible?
b) Given the current PPF (the curve joining points A and F) would the country choose to produce at point K? Why or why not?
c) Given the graph above, Athletic Country's opportunity cost of producing more Bat in terms of Racket changes in what way as we move from point A to F?
d) If Athletic Country currently produces 100 bats, what opportunity cost of producing an additional 100 bats? If Athletic Country produces 300 bats and 300 rackets instead of 200 bats, what is the opportunity cost of an additional 100 bats?

e) Suppose the taste of the people of Athletic Country goes in favour of Cricket and against Badminton. The new Athletic Country production possibilities frontier will most closely resemble a curve joining which two letters?

f) Suppose a Government sports policy favours both the games, i.e., Cricket and Badminton. Assuming the PPF is originally the curve joining points A and F, the new Athletic Country PPF will most closely resemble a curve connecting which two points?

g) Suppose that a country that has a high level of output per person agrees to trade with a country that has a low level of output per person. Which country can benefit and why?

10. Answer the following question(s) on the basis of the data given in the following production possibilities table:

	Production possibilities (alternatives)					
	A	B	C	D	E	F
Capital goods	5	4	3	2	1	0
Consumer goods	0	5	9	12	14	15

a) If the economy is producing at production alternative C, what is the opportunity cost of producing 14th unit of consumer goods?

b) Analyse the situation if the economy produces a total output of 3 units of capital goods and 4 units of consumer goods.

c) Analyse the situation if this economy wants to produce a total output of 3 units of capital goods and 13 units of consumer goods.

d) Compute the per unit opportunity cost of capital goods.

e) What is the behaviour of the opportunity cost of consumer goods as explained by the information given in the above table?

f) What is the shape of the PPF if the information is represented graphically?

g) Why PPF will take this particular shape?

h) If an economy is operating on its production possibilities curve for consumer goods and capital goods, will it be possible to produce more of capital goods? How?

INSTRUCTIONS TO BE FOLLOWED BY THE STUDENT:

1. Assignment preferably be hand written on **both side of A$_4$ size** (Xerox) paper, and **NOT IN A NOTE BOOK**.

2. Assignment must content Branch, Section, Regd. No. & Name on the top of the first page.

3. **Diagrams (if any) must be constructed by using PEN/PENCIL and SCALE with proper naming and scaling of the axis.**

4. **For any emergencies, students are directed to submit the assignment on or before due date in faculty chamber E-439**

5. **Students are directed not to drop** assignment **in the faculty chamber, if door is locked / closed.**

6. No assignment will be entertained after **_due date & time of submission_**.

7. STUDENTS ARE ADVISED TO KEEP A SET OF PHOTOCOPY OF THE ASSIGNMEN BEFORE SUBMISSION, FOR FUTURE REFERENCE

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