

The LNM Institute of Information Technology

Department: HSS Economics for Engineers (204)

Exam Type: Mid Term

Time: 90 minutes

Date: 25/09/2019

Max. Marks: 30

Instructions: All the questions are compulsory. No partial credits. Marks will be deducted for rewriting or change of response in the answers. Write the paper legibly and neatly. NO clarifications will be entertained. Attempt the paper in **sequence** & start **NEW** question on a new page. **Total 14 questions.**

Part I [$1 \times 6 = 6$]

Q.1 Which of the following statements is an example of positive economics?

- a. The unemployment rate is 6%
- b. Unemployment is worse than inflation
- c. The major economic goal of our nation should be a low level of unemployment
- d. We need to pray every day that God will protect us from unemployment.

Q.2 Economic growth can be shown by:

- a. An inward shift of the production possibility frontier
- b. A movement along the production possibility frontier
- c. An outward shift of the production possibility frontier
- d. A decision by the government to produce inside the production possibility frontier

Q.3 As resources are shifted from one industry to another this can be shown by:

- a. An inward shift of the production possibility frontier
- b. A movement along the production possibility frontier
- c. An outward shift of the production possibility frontier
- d. A movement of the production possibility frontier towards the origin

Q.4 A corporation differs from a proprietorship in all of the following ways except:

- a. Having limited liability for its owners
- b. Its income is subject to taxation
- c. It is assumed to be seeking to maximize profits
- d. It is a legal entity separate from its owners

Q.5 Uncommon thing between law of variable proportions & returns to scale is:

- a. Increasing Returns
- b. Decreasing Returns
- c. Constant Returns
- d. None of above

Q.6 With an increase in nominal income the individual think it is better off; when prices are also increasing. Which fallacy is the individual likely to commit?

Ans: Fallacy of Composition

Part II [$3 \times 8 = 24$]

Q.7 Rajnish stays in the college hostel. He used to get a stipend of Rs 5,000 per month from his father. Recently, his father has become more generous and gives him Rs 7,000. We observe that Rajnish is going to a lot more movies than before but eating less at the nearby dhaba. There are no changes in the movie ticket prices or that of the food at the dhaba. From this, can we say that both movies and food at the dhaba are normal goods for Rajnish? Explain. [3]

Movies: Normal good

Food at dhaba: Inferior good

Diagrams too

Q.8 It is announced that a new steel plant will come up in an area within a year's time. How will it affect the demand for land in that area now? Which determinant of demand is at work here and explain with diagram? [2+1=3]

Demand for land: Rise

Determinant: Future expectations

Q.9 There are train and bus services between Delhi and Agra. Suppose the train fares between the two cities come down. How will it affect the demand for bus travel between the two cities? Which determinant of demand is at work here? Explain with diagram. [2+1=3]

Demand will fall for bus travel between the two cities.

Determinant: Price of other related goods (Substitute goods)

Q.10 How does the Cross elasticity of demand between one model of a car and petrol differ from the Cross elasticity of demand between the model and other model of the cars? Explain with diagram. [3]

Cross elasticity of demand between one model of a car and petrol: Complimentary goods

Cross elasticity of demand between the model and other model of the cars: Substitute goods

Q.11 Use the demand and supply framework to analyze the market in each of the scenarios given in a) to c). What are the effects on equilibrium price and quantity? (Increase/decrease/uncertain) Summarize the result in the following table format in your answer book: [1+1+1=3]

a) Teaching assistants consider microwaveable meals an inferior good. This semester, they are greeted with bad news as the Department of Economics cuts their stipends by 15%.

b) Banana Inc. introduces the latest incarnation of its smartphone, the iPhone 6. A flood of consumers rush to order this famous smartphone.

c) The economic slump and oil shocks have caused consumers to delay excessive spending, particularly, the purchase of exotic supercars. Automobile firms correctly anticipate the economic crisis and cut down production of exotic models.

S No	Market	Equilibrium Price	Equilibrium Quantity
a	Microwave Meal	Increase	Increase
b	iPhone 6 Smartphone	Increase	Uncertain
c	Exotic Cars	Uncertain	Decrease

Q. 12 Suppose that the market demand for potatoes is given by $Q = 1000 - 250P$ and the market supply of potatoes is given by $Q = 150P$, where P is the price per bag of potatoes and Q is the number of bags per month. What are the equilibrium price and quantity for potatoes? Illustrate your answer graphically and clearly labelling out all that is required. [1+2=3]

Equilibrium $P = 2.50$

Equilibrium $Q = 375$

Q. 13 Assume that the MP of 7th worker hired by a firm is less than the MP of the 6th worker. Does it mean that the AP of seven workers is less than the AP of the first six workers? Discuss. [3]

NO. AP of seven workers can be on rising portion or on maximum point.

Q.14 Explain what is meant by (a) increasing returns to scale, (b) constant returns to scale, and (c) decreasing returns to scale. Explain briefly how each of these might arise. [1+1+1=3]

- Proportionate change in inputs and output causes increasing, constant, decreasing returns to scale.
- Economies (internal and external) and diseconomies of scale (internal and external).