

**GM 04/eGM04
MANAGERIAL ECONOMICS**

Time: Three Hours

Maximum Marks: 100

Note:

The paper is divided in three sections: Section A, Section B and Section C. There are 7 questions in Section-A, students are required to attempt ANY FOUR. Section-B has 5 questions, attempt ANY THREE. All the questions of Section-C (Case Study) are compulsory.

Section-A

(Each question is of 10 Marks. Attempt any four)

1. What are various reasons for increasing returns to scale?
2. Explain with the help of suitable example, how various tools of managerial economics help the Manager in reaching the optimum solution to the problem in hand.
3. Define product differentiation. What is difference between real and fancied product differentiation.
4. Discuss the relationship between TP, MP and AP curves. Show the 3 stages of production in graph showing the above relationship.
5. Explain maximization of consumer utility by the technique of indifference curve & budget line.
6. Classify market structure based on
 - (a) Product Type
 - (b) Number of buyers and sellersGive suitable examples
7. Describe the price leadership model of oligopoly.

Section-B

(Each question is of 15 Marks. Attempt any three)

8. Explain relationship between TFC, TVC, TC, AFC, AVC, ATC and MC with the help of suitable diagram

9. Write short notes on:
 - (a) Isoquant
 - (b) Economic & Diseconomies of scale
 - (c) Cobb Douglas Production Function
10. What is elasticity of demand? Explain price, cross & income elasticity of demand used in managerial decision making process?
11. What do you mean by monopoly? How are price and output determined in short and long run in monopoly?
12. Critically analyze Baumol Theory of Managerial Economics?

Section-C

Case Study (15 Marks)

BSNL accuses Airtel of forming cartel with Idea and Vodafone

State-owned **Bharat Sanchar Nigam Ltd (BSNL)** accused rival **Bharti Airtel Ltd** of forming a cartel with **Vodafone India Ltd** and **Idea Cellular Ltd** to bid selectively in the 3G spectrum auction in 2010 to limit their spendings on airwaves, according to an affidavit filed by the state-run company in the Supreme Court on Thursday.

The apex court will next hear the case on 9 May.

BSNL has accused **BhartiAirtel** of “entering into illegal arrangements for roaming in contravention of the terms of the licence held by them”, according to a copy of the affidavit, reviewed by *Mint*. “These arrangements have caused the government exchequer huge losses in terms of spectrum charges (paid at the time of the spectrum auction) and spectrum usage charges, that are paid annually as a percentage of the annual gross revenue of the telecom service provider,” affidavit said.

BSNL alleged that the private telecom operators had bid selectively as a cartel in the 2010 auction in order to limit their individual spending on spectrum and yet as a whole maximize their coverage, said BSNL officials and a lawyer requesting anonymity due to subjudice nature of the case.

BSNL has asked the court to dismiss Bharti’s petition that seeks quashing of DoT notices with costs.

The 2010 3G spectrum auction saw heavy bidding, with no operator succeeding in getting spectrum in all 22 circles across the country. The 3G auction earned the government almost Rs.70,000 crore. The broadband wireless access spectrum auction, which immediately followed the 3G auction, generated an additional Rs.40,000crore for the government.

Bharti paid around Rs.12,300crore for spectrum in 13 circles, **Vodafone** paid Rs.11,600 crore for spectrum in nine circles while **Idea** paid Rs.5,700 crore for spectrum in 11 circles.

BSNL, which was exempted from participating in the auction, had to pay Rs.10,186 crore for spectrum reserved for it by the government in 20 circles where it operates.

In July 2010, the three operators (Bharti, Vodafone and Idea) had announced that they had signed intra-circle roaming agreements, with each other, through which they would be able to offer 3G services across the country. Subsequently, DoT declared these agreements illegal and sent notices to the operators which were contested in the courts.

Earlier this year, the department sent notices to the private operators with a penalty component of Rs.50 crore for every circle where they were offering 3G services, without winning the necessary spectrum in the 2010 auction. The total penalty imposed on Bharti by the DoT is Rs.350 crore, Vodafone Rs.550 crore and Idea Rs.450 crore.

BSNL has contended that the private operators have not spent any money in circles where they did not win any spectrum, and are still acquiring new customers. In contrast, BSNL said it has spent significant amount of money setting up infrastructure across the country. The court has subsequently barred the operators from acquiring new 3G customers (in the impacted circles) till it decides on the case.

On Thursday, DoT also filed an affidavit in the case, sticking to its contention that the operators were not allowed to offer 3G services in circles where their licences were not amended to offer 3G services. DoT has also said that spectrum sharing was not allowed and allowing the operators to offer the services has undermined the objectives of the spectrum auction.

The case has reached the Supreme Court after the Delhi high court set aside a stay on any coercive action against the operators by DoT on the basis of the notices.

The decision came on an appeal by **Reliance Communications Ltd** that said the roaming agreements were causing a loss of thousands of crores in lost revenue. The operators (Bharti, Vodafone, Idea) then appealed this verdict in the Supreme Court.

“The (telecom) policy talks of technology neutrality and encouraging the sharing of a scarce natural resource whereas the government is going after the operators for doing exactly that,” said **Hemant Joshi**, a partner at Deloitte Haskins & Sells.

Bharti, Vodafone and Idea declined to comment on the story. In an earlier statement on the issue, Bharti spokesperson had said that the 3G roaming services are clearly permissible under the terms of the license issued by DoT.

13. Case Questions:

- a. What are the reasons for forming cartel? Explain the case with reference to Airtel forming cartel with Idea and Vodafone. **(5)**
- b. Explain with appropriate diagram, how price and Output is determined in case of cartel. **(10)**