



**Note:**

- 1) This is a closed book exam.
- 2) Read and follow all the instructions printed on the answer sheet.
- 3) Question paper has 8 questions and all the questions are compulsory.
- 4) All parts of a question should be answered consecutively. Each answer should start from a fresh page.
- 5) Calculators are allowed.

**Q.1** Stevenson knew that before the next meeting with the marketing director, he had to come up with a report about the results of the field-test, and also provide possible solutions to the problem. He was up for a promotion and did not want this project to affect his chances. What should he do next? Why were the results the way they were? Should he abandon the program even though about US\$300,000 had been invested in it? Alternatively, should he change certain features of the program before re-launching it so that it is more targeted, because the different segments of customers seemed to react quite differently to the program? Was there a need for more market research to see what each group of customers would prefer in a referral incentive program? **[5M]**

**Q.2** The million-dollar question was whether it would be able to dethrone the local players by acquiring them or by beating them? Being the most-visited website in 2015, would it become the most loved brand of the Indian masses? If Jeff writes a book on Amazon, then India would be a chapter in it, but would the chapter be titled “Bezos’s folly” or “The Billion-Customer bounty”? **[5M]**

**Q.3** Find the initial basic feasible solution using VAM. **[7M]**

O/D	D1	D2	D3	Supply
O1	5	1	7	10
O2	6	4	6	80
O3	3	2	5	50
Demand	75	20	50	

**Q.4** Draw the network diagram and determine the optimal total time and corresponding cost from the following data. Overhead cost is 60 INR per day. **[8M]**

Activity	Normal Time (Days)	Crash Time (Days)	Normal Cost (INR)	Crash Cost (INR)
1-2	9	6	640	700
1-3	8	5	500	575
1-4	15	10	400	550
2-4	5	3	100	120
3-4	10	6	200	260
4-5	2	1	100	140

**Q.5** How you are going to spend all the evenings of a week with a budget constraint of \$21 to maximize the overall utility. **[5M]**

<b>Trips per visit</b>	<b>to Club</b>	<b>Total Utility</b>	<b>Price (\$)</b>
1		12	3.00
2		22	3.00
3		28	3.00
4		32	3.00
5		34	3.00
6		34	3.00

<b>Basketball Game per visit</b>	<b>Total Utility</b>	<b>Price (\$)</b>
1	21	6.00
2	33	6.00
3	42	6.00
4	48	6.00
5	51	6.00
6	51	6.00

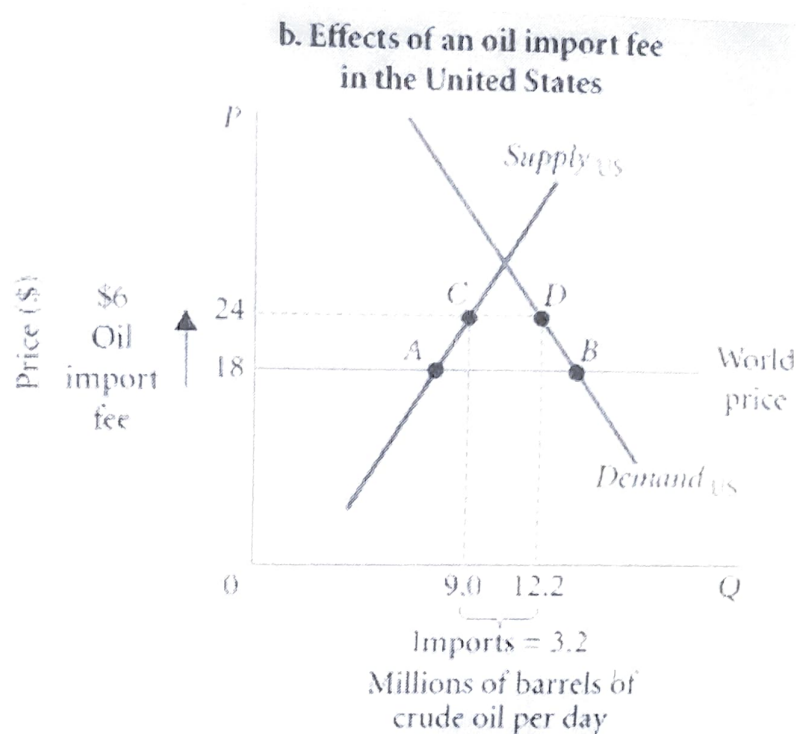
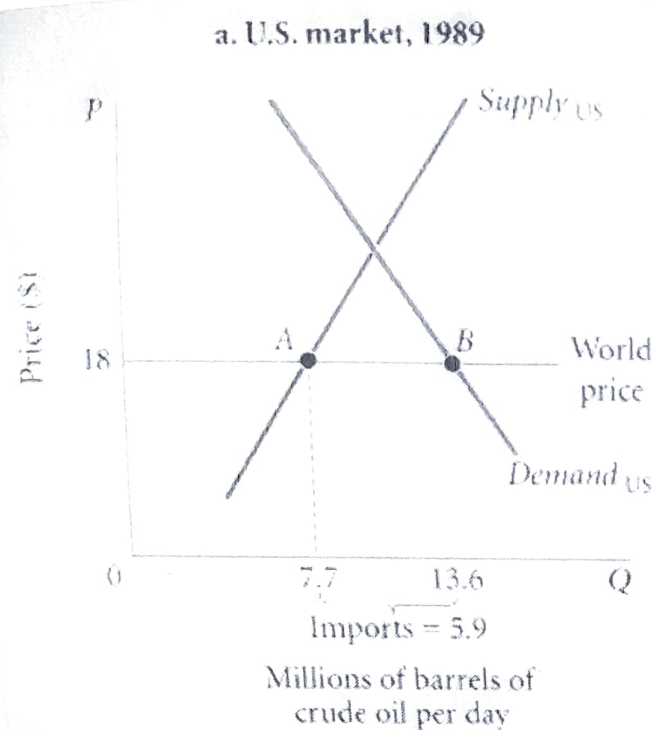
**Q.6** Calculate the output and price of a two firm market from the following information:

$$P = 100 - Q; TC = 40Q$$

**[5M]**

Q.7 Interpret the information from the following figure.

[2M]



Q.8 Find the dominant strategy for both the players i.e. A & B from the following pay-off matrix.

[3M]

		B's Strategy	
		Do not advertise	Advertise
A's Strategy	Do not advertise	<p>A's profit = \$50,000</p> <p>B's profit = \$50,000</p>	<p>A's loss = \$25,000</p> <p>B's profit = \$75,000</p>
	Advertise	<p>A's profit = \$75,000</p> <p>B's loss = \$25,000</p>	<p>A's profit = \$10,000</p> <p>B's profit = \$10,000</p>

\*\*\*End of Question Paper\*\*\*

\*\*\*Best of Luck\*\*\*