**Instructions: Answer all questions. Questions carry equal marks (10 marks). There are no word limits. You are expected to use graphs liberally and if needed, hypothetical examples (including numbers) in support of your answers. If you use sources other than your text/reference/shared readings to answer the questions, they have to be cited at the end. If marked similarities are noted in answers submitted by two or more students, all concerned students will face grade cuts. Late submissions will also invite grade cuts.**

**The assignment must be hand-written on both sides of A4 sized papers. Typed answer  
sheets will not be accepted.**

1. Suppose the market for health care follows the laws of demand and supply. Show (using graphs) and explain
2. demand and supply of health care
3. equilibrium price and quantity of health care.
4. suppose fewer physicians will be able to practice medicine because of stricter licensure requirements. What would happen to the demand, supply and equilibrium price and quantity of health care under the new circumstances?
5. Using circular flow of income model describe (diagrammatically as well as intuitively) the health care sector of India. Specify the goods/services and factors in your model. How will the addition of Government alter your model?
6. Resolve the following: “The price of ice cream increased in the summer, yet quantity also increased. Therefore, the law of demand does not apply to ice cream.”
7. The core management of Apollo hospitals in Delhi is considering recruiting another radiologist for its Oncology department. Explain using economic theory, how the management arrives at a decision on whether to go ahead with the recruitment.
8. Suppose Government of Delhi orders a ceiling on the consultation fee charged by doctors in private medical establishments. Explain the effect of this order on equilibrium price and quantity of private health care in Delhi. Can you think of some of the other possible fallouts of this order?
9. Suppose consumers consume and gain utility from two types of goods and services - (1) health care & (2) all other goods & services. Using this information, derive the demand curve for health care.
10. In reaction to higher input costs, a physician decides to increase the average price (consultancy charges) of a visit by 5 percent. Will total revenues increase or decrease as a result of this action? Use the concept of price elasticity to substantiate your answer.
11. With suitable examples explain (a) reverse causality and (2) spurious correlation. Explain why a researcher must be careful when interpreting findings from a survey that finds a positive association between education levels and health outcomes.
12. Suppose the price of good X is Rs.5 and the price of good Y is Rs.10 and a household has Rs. 500 to spend per month on goods X and Y.
13. Sketch the household budget constraint.
14. Assume that the household splits its income equally between X and Y. Show where the household ends up on the budget constraint.
15. Suppose the household income doubles to Rs.1,000. Sketch the new budget constraint facing the household.
16. Suppose after the change the household spends Rs. 200 on Y and Rs. 800 on X. Does this imply that X is a normal or an inferior good? What about Y?
17. What is the income elasticity of demand for X and Y?
18. Cipla produces generic antibiotics in a factory that uses capital in the form of machines and labour who work on those machines. The relationship between the number of workers employed and number of anti-biotic strips produced is given in the table below. The wage paid to a worker is INR 750 and the firm has a fixed cost of INR 1500. Each strip of antibiotic is sold at a price of INR 100. Fill in the empty cells in the **table below** using the information above. Make at least two comments on what you observe.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Workers** | **Output (Strips of antibiotic)** | **Marginal Product** | **Variable Cost** | **Total Cost** | **Marginal Cost** | **Average Variable Cost** | **Average Fixed Cost** | **Total**  **Revenue** | **Marginal Revenue** | **Profit** |
| 0 | 0 |  |  |  |  |  |  |  |  |  |
| 1 | 20 |  |  |  |  |  |  |  |  |  |
| 2 | 50 |  |  |  |  |  |  |  |  |  |
| 3 | 90 |  |  |  |  |  |  |  |  |  |
| 4 | 120 |  |  |  |  |  |  |  |  |  |
| 5 | 140 |  |  |  |  |  |  |  |  |  |
| 6 | 150 |  |  |  |  |  |  |  |  |  |

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