

QUANTITATIVE SECTION II (Question 7 out of 7)

7. A hospital in KW region is considering purchasing a new blood analysis machine for sixty thousand dollars. They estimated that they could charge \$80/visit to have a patient's blood analyzed. The variable cost of a blood analysis is estimated to be \$30. Consider this information to answer the questions below:
- a) If this new machine has design and effective capacities of six thousand, and five thousand blood analyses per year, respectively, and the hospital expects to perform forty-five hundred blood analyses every year, what will be the utilization of this machine? **(4 marks)**
  - b) How many blood analyses would the hospital have to perform in order to make a profit of fifty thousand dollars? **(3 marks)**