

## Section-1

Ans-1 Three definitions of Operation Research:-

According to T.L. Saaty,  
"O.R. is the art of giving bad answers to the problems which otherwise have worst answers."

According to H.M. Laignee,  
"O.R. is the scientific approach to problem solving executive mgmt."

According to Morse and Kimball  
O.R. is a scientific method of providing executive departments with quantitative basis decisions regarding the operations under their control.

Nature and Limitations :-

- Nature →
- Interdisciplinary team approach
  - Systematic approach
  - Scientific method
  - Goal oriented
  - Improves quality of solution
  - Reduces complexity by use of computers
  - Better control

- Better control
- Better systems
- Better decisions
- Better coordinations

limitations →

- Money
- time costs
- Bias
- Inadequacy of return functions
- Internal resistance
- only applicable for specific categories of problems.