NOTE: i) All the questions are compulsory

ii) Use examples wherever necessary

Q. 1 Answer the Following (Any Two)

(15)

- a) What is SERQUAL Dimension of service quality given by Parasuraman?
- b) Explain Total Productivity Maintenance and Nine Essential of TPM in detail?
- c) Explain Deming's 14 point of Management?

Q. 2 Answer the Following (Any Two)

(15)

- a) Explain the Concept
 - i) Job Rotation

(4)

ii) Work Study

 $(3\frac{1}{2})$

- b) Explain Ergonomics and Five Aspects of Ergonomics?
- c) Explain Different Types of Incentives in detail?

Q. 3 Answer the Following (Any Two)

(15)

- a) Explain the concept
 - i) Brainstorming

(4)

ii) Delphi and Nominal group Technique

(3.5)

- b) Explain different types of waste in manufacturing?
- c) Explain Muri, Mura and Muda in detail?

Q. 4 Answer the Following (Any Two)

(15)

- a) Explain 8 Principles of ISO 9000?
- b) Explain 5's of Kaizen Tools in Detail?
- c) Explain National Productivity Council and services provided by NPC?

Q. 5 CASE STUDY

(15)

Mr. X was driving a car on Shimla- Manali Highway; the destination was around 500 Km away from his starting point. He had to drive the whole night and needed to reach a destination next morning to attend the business meeting. Suddenly in the hilly areas he met with an accident and he loses the control of the car. Find out the Reason for his lost control of Car as per ISHIKAWA Diagram. Following Aspects have to be described in Detail

- i) Slippery Runway
- ii) Driver Error
- iii) Mechanical Failure
- iv) Bursting of Tyre