CONTENTS

CHAPTER - I

INTRODUCTION

1.1 INTERRELATIONSHIP OF SCIENCE, TECHNOLOGY AND LAWS

1.1.1 MEANING AND DEFINITION OF SCIENCE, TECHNOLOGY AND LAW

1.1.1.1 SCIENCE

1.1.1.2 TECHNOLOGY

1.1.1.3 LAW

1.2 TECHNOLOGY AS THE APPLICATION OF BASIC SCIENTIFIC KNOWLEDGE

1.3 IMPACT OF SCIENCE AND TECHNOLOGY ON LAW

1.3.1 IMPACT OF SCIENCE ON INVESTIGATION

1.3.1.1 SCIENTIFIC SECTIONS IN THE CRIMINAL INVESTIGATION DEPARTMENT

1.3.2 IMPACT OF SCIENCE ON THE JUSTICE DELIVERY SYSTEM

1.3.3 IMPACT OF SCIENCE ON COURT AND COURT PROCESSES

1.3.4 IMPACT OF TECHNOLOGY ON INVESTIGATIONS

1.3.5 IMPACT OF TECHNOLOGY ON COURT AND COURT PROCESS

1.3.6 IMPACT OF TECHNOLOGY ON JUSTICE DELIVERY SYSTEM

CHAPTER – II

THE EXPERT EVIDENCE

2.1 HISTORY OF EXPERT EVIDENCE

2.2 DEFINITIONS OF EXPERT EVIDENCE

2.2.1 EVIDENCE

2.2.2 EXPERT

2.2.2.1 THE INDIAN SCENARIO ON EXPERT EVIDENCE

2.2.2.1.1 SPECIAL PROVISION IN THE CR.P.C RELATING TO ATTENDENCE OF EXPERTS IN COURTS
2.3 EXPERT TESTIMONY
   2.3.1 LAW GOVERNING THE LAY OPINION TESTIMONY
   2.3.2 EXPERT WITNESS TESTIMONY
   2.3.3 LEGAL PROVISION RELATING TO EXPERT TESTIMONY UNDER EVIDENCE ACT

2.4 QUALIFICATION OF EXPERT

2.5 TYPES OF EXPERT WITNESS
   2.5.1 THE MEDICAL EXPERT WITNESS
   2.5.2 FORENSIC EXPERT WITNESS
   2.5.3 TEXTIFYING EXPERT WITNESS
   2.5.4 NON-TESTIFYING EXPERT WITNESS

2.6 ADMISSIBILITY OF EXPERT EVIDENCE

2.7 WHEN EXPERT WITNESS NOT APPLICABLE

2.8 COURT EXPERT OPINION CAN BE TAKEN

2.9 ROLE AND DUTIES OF EXPERT WITNESS
   2.9.1 DUTIES OF EXPERTS
   2.9.2 FUNCTIONS

CHAPTER – III

EMERGING TRENDS IN EXPERT EVIDENCE AND INVESTIGATION

3.1 FORENSIC ODONTOLOGY
   3.1.1 DEFINITION OF FORENSIC ODONTOLOGY
   3.1.2 BITE MARKS
   3.1.3 FORENSIC ODONTOLOGIST CALLED FOR
      3.1.3.1 METHODS ADOPTED BY FORENSIC ODONTOLOGIST
   3.1.4 USE OF FORENSIC ODONTOLOGY

3.2 FORENSIC ENTOMOLOGY
   3.2.1 FORENSIC ENTOMOLOGY IS AN EMERGING BRANCH OF THE FORENSIC SCIENCES
3.2.2 DEFINITION OF A FORENSIC ENTOMOLOGIST
3.2.3 SUBTYPE OF A FORENSIC ENTOMOLOGIST
  3.2.3.1 URBAN FORENSIC ENTOMOLOGY
  3.2.3.2 STORED - PRODUCT FORENSIC ENTOMOLOGY
  3.2.3.3 MEDICO - LEGAL ENTOMOLOGY
3.2.4 HOW DO INSECTS HELP FORENSIC SCIENTISTS
3.2.5 THE UTILITY OF FORENSIC ENTOMOLOGY IN LEGAL INVESTIGATIONS
3.2.6 CASES

3.3 FORENSIC PATHOLOGY
  3.3.1 DEFINITION OF FORENSIC PATHOLOGY
  3.3.2 FORENSIC PATHOLOGISTS
  3.3.3 ROLE OF FORENSIC PATHOLOGY
    3.3.3.1 CAUSE OF DEATH
    3.3.3.2 MECHANISM
    3.3.3.3 MANNER
      3.3.3.3.1 NATURAL
      3.3.3.3.2 ACCIDENTAL
      3.3.3.3.3 SUICIDE
      3.3.3.3.4 HOMICIDE
      3.3.3.3.5 UNDETERMINED
  3.3.4 HOW THE FORENSIC PATHOLOGIST WORK

3.4 DNA AND DNA PROFILING
  3.4.1 MEANING OF DNA
  3.4.2 EXTRACTION OF DNA
  3.4.3 DNA PROFILING AND DNA FINGERPRINTING
    3.4.3.1 TECHNIQUE FOR DNA FINGERPRINTING
  3.4.4 USE OF DNA PROFILE
  3.4.5 LEGAL ASPECT OF DNA

3.5 INTERNET CRIMES
  3.5.1 MEANING OF INTERNET
  3.5.2 DEFINITION OF INTERNET CRIME
3.5.3 INTERNET EXPERT

3.5.4 TYPES OF INTERNET

3.5.4.1 SEXUAL ABUSE OF A CHILD
3.5.4.2 STALKING OR CYBER STALKING
3.5.4.3 HARASSMENT OR CYBERHARASSMENT
3.5.4.4 INTERNET BOMB THREAT
3.5.4.5 CYBER TERRORISM
3.5.4.6 CLASSIFIED GLOBAL SECURITY DATA THEFT
3.5.4.7 PASSWORD TRAFFICKING
3.5.4.8 CREDIT CARD THEFT AND FRAUD
3.5.4.9 EMAIL PHISHING
3.5.4.10 VIRUS SPREADING
3.5.4.11 ONLINE CHILD PORNGRAPHY

3.5.5 CASES

3.6 FINGERPRINT (DACTYLOSCOPY)

3.6.1 MEANING OF FINGERPRINT
3.6.2 DACTYLOSCOPY
3.6.3 FINGERPRINT EXPERT
3.6.4 CHARACTERISTICS OF FINGERPRINTS

3.6.4.1 UNIQUE
3.6.4.2 PERMANENT
3.6.4.3 UNIVERSAL
3.6.4.4 INIMITABLE

3.6.5 CLASSIFICATION OF FINGERPRINTS

3.6.5.1 ARCHES
3.6.5.2 LOOPS
3.6.5.3 WHORL
3.6.5.4 COMPOSITES

3.6.6 CASES

3.7 HANDWRITING

3.7.1 FACTORS ON WHICH INDIVIDUAL HANDWRITING IS DEVELOPED

3.7.1.1 INFLUENCE IN THE SCHOOL ROOM:
3.7.1.2 FAMILY INFLUENCE
3.7.1.3 COMMON BUSINESS SURROUNDINGS
3.7.1.4 RACE AND NATIONALITY
3.7.1.5 GENDER
3.7.1.6 EMOTIONS
3.7.1.7 PHYSICAL CAUSES

3.7.2 FACTORS THAT MAKE A DIFFERENCES IN INDIVIDUAL TO INDIVIDUAL HANDWRITING
3.7.2.1 STYLE AND FORMS
3.7.2.2 SKILL
3.7.2.3 CONNECTION
3.7.2.4 SHADING
3.7.2.5 MOVEMENT
3.7.2.6 EMBELLISHMENTS
3.7.2.7 TERMINAL STROKE
3.7.2.8 SLANT
3.7.2.9 WIDTH
3.7.2.10 SPACING
3.7.2.11 SPEED
3.7.2.12 PROPORTION
3.7.2.13 ALIGNMENT
3.7.2.14 PEN HOLD
3.7.2.15 RHYTHM
3.7.2.16 PEN LIFTS AND SEPARATIONS
3.7.2.17 PEN PRESSURE
3.7.2.18 ARRANGEMENT

3.7.3 LEGAL ASPECT OF HANDWRITING

CHAPTER – IV

RELEVANCY AND PROBATIVE VALUE OF EXPERT EVIDENCE

4.1 RELEVANCY

4.2 LOGICAL AND LEGAL RELEVANCY

4.3 RELEVANCY AND ADMISSIBILITY
4.4 PROBATIVE VALUE

4.5 RELEVANCY AND PROBATIVE VALUE OF EXPERT EVIDENCE

4.5.1 AMERICA
4.5.2 AUSTRALIA
4.5.3 NEW SOUTH WALES
4.5.4 ENGLAND
4.5.5 CANADA
4.5.6 INDIA

CHAPTER – V
CONCLUSIONS AND SUGGESTIONS

CONCLUSIONS
SUGGESTIONS