

SYLLABUS FOR ALL INDIA BOARD EXAMINATION FOR FINGERPRINT EXPERTS

Index

Theory

1. History of Fingerprint science and it's developments.
2. Theory of science of fingerprint identification
3. Taking of fingerprint of living persons and of dead bodies.
4. Classification and sub classification system for recording fingerprint slips and for conducting search.
5. Methods of comparison of papillary ridge counts
6. Single digit classification and it's usefulness
7. Application of fingerprint science in detection of crimes
8. Scene of crime & evidence in court of law.
9. Application of law of probability to fingerprint science
10. Law relating to fingerprint evidence.
11. Computerisation of Ten digit fingerprints.
12. Photography in Fingerprint science.
13. Other laws and relevant topics on the subject.

Practical

1. Taking of fingerprints
2. Developments of latent fingerprints
3. Lifting of latent fingerprints
4. Packing of exhibits
5. Comparison of partial, blurred fingerprints on documents
6. Comparison of Questioned/ latent fingerprints
7. Classification of Ten digit fingerprints

Part-A

Theory

100 marks

Chapter I

History of Fingerprint science and it's developments.

Anthropometry, the origin of fingerprint science and the stages of it' evolution, the pioneering contributions to fingerprint science and its' development through times, Galton, Herschel, Faulds Henry, Aziz-ul-Haque and others

Chapter II

Science of fingerprint identification

When fingerprint was first conceived as a tool of identification and tracing the origin & circumstances leading to it's use. It's Impact on the jurisprudence, policing and homeland security. The chief contributors and their contributions in this sphere - Galton, Faulds, E.R. Henry, Chatterjee and others

Chapter III

Taking fingerprints of living persons and of dead bodies.

The different procedures of recording fingerprints, the methods of taking fingerprints of living & dead, rigor mortise, techniques of recording fingerprints of dead bodies of different stages, viz, immediately after death & after rigor mortis, decomposed & charred bodies. Precautions that are to be taken during the process, need of taking fingerprints of cadavers and its' subsequent use. Modern trend - Fingerprint enrolment device (FED) or live scanner. Conventional method of recording print vis-a-vis FED- a comparative study- the need & utilities of FED in today's scenario.

Chapter IV

Classification and sub classification system for recording fingerprint slips and for conducting search.

Fingerprint Patterns - core & delta, counting & tracing of ridges, evolution of different system of classifications, and their modification till date, their utilities,

Henry system and other systems of classification. Classifications of ten-digit fingerprint slip & search, Classification formula, Classification of palm prints.

Chapter- V

Comparison of papillary ridge counts

Papillary ridge, methods of comparison of papillary ridges, need of comparison and marking of ridge characteristics in identical prints, Poroscopy, and Edgeoscopy.

Chapter-VI

Single digit classification and its usefulness

The meaning of single digit classification, its' usefulness through the times, its' present day needs and utilities; single print classification and the disadvantages of the single digit system.

Chapter-VII

Application of fingerprint science in detection of crimes

The significance of fingerprint science in crime detection through the ages, forgery in fingerprints, document case examination & furnishing of expert opinion thereof, Contribution of fingerprint science towards domestic and global security.

Chapter-VIII

Scene of Crime & Evidence in the court of law

Scene of Crime Prints, types of Chance Prints, composition of sweat and various modern techniques used in their lifting/developments on different surfaces/articles. Presentation of fingerprint evidence before the court of law. Cross examination, legal provisions and other related matters.

Chapter-IX

Application of law of probability to fingerprint science

Theory of law of probability & use of mathematics in the field of fingerprint science to fix the identity of individuals.

Chapter-X

Laws relating to fingerprint science

Identification of Indian prisoners' act 1920, Indian evidence act of 1872, modifications to the Indian evidence act of 1872 in accordance with the Information and technology act 2000, who is an authorised person to take fingerprints, who can be asked to furnish fingerprints, evidence in court, who is an expert, international standard for furnishing opinion in the court of law vis-à-vis Indian standard.

Chapter-XI

Computerisation of fingerprints. (Automation of fingerprints)

History of computerisation, AFIS, evolution of AFIS, AFIS in present form, manual fingerprint and AFIS, the effect of AFIS in modern times, Critical evaluation of AFIS vis-à-vis manual methods, live scanner (FED) and AFIS, a comparison. Advantages of AFIS , NIST & WSQ standards.

Chapter-XII

Photography in Fingerprint science

Different techniques used in photography. Diapositives, Analogue & Digital format.
The role of Digital Photography under the Information & Technology Act.

Chapter-XIII

Other relevant topics.

IT act 2000, amendment to Indian evidence act of 1872 in view of the IT Act of 2000, digital data, securing digital data, production of digital evidence in court of law, Basic concept of cyber-laws, sec-65 and sec-66 of IT act 2000.

References-

Books

- S. Siddique -Angulichap Vignan (Hindi)
- S.N. Singh- Aungluk Vigian(Hindi)
- Adhunic anguli Chhap Pahechan(Hindi) - Dr. Nishant Singh
- Salil Kumar Chaterjee & Richard V. Hague-Fingerprint or Dactyloscopy & Ridgeoscopy.
- Salil Kumar Chaterjee – Speculation in fingerprint identification
- The Finger Print Story by Gerald Lambourne Q.P.M.
- The Science of Finger Prints by United States Dept. of Justice.
- Advances in Finger Print Technology by Henry C. Lee PHD P.K. Gaesslen, PHD
- The Finger Print System at Scotland Yard by Frederick R. Cherrill
- Finger Printing (A Manual of Identification) by Frederick R. Cherrill
- Battley- Single Finger Prints
- Chapal -A Finger Print Manual of Identification
- Chatterjee- Finger Palm & Sole Prints
- Cherril- FINGERPRINTS System at Scotland Yard
- Henry Classification & use of Finger Print-Scott
- Finger Print Mechanics-Wilder & Wentworh
- Personal Identification-Sir Francis Galton.
- Finger Print-Sir Francis Galton
- Print Hand Book-S. Parduman Singh
- Modern Criminal Investigations-M.N.Khardory.
- Law & Technique relating to Finger Print and suspect document- Richardson
- Modern Scientific Evidence-Andre A.Moenssens
- Finger Print Techniques-Andre A.

- Moenssens -Finger Print & the Law
- Jame Holt- Finger Print Simplified
- Cummins&Middlo- Finger Prints, Palm & Soles
- C.Brown&Allan Breck- Finger Prints
- Charles O'hard -Fundamentals of Criminal Investigation
- J.H. Duncan- An Introduction to Finger Prints
- D. Venkaiah- Law of Prints & Impressions
- Sarah B. Holt -The Genetics of Dermal Ridges
- E.Ronald Menzel -Finger Print Detection with Lasers
- Peter Komarinski -Automated Fingerprint Identification systems (AFIS)
- Melissa Langley- Looking for Fingerprints
- Matteo Ferrara Biometric Fingerprint Recognition Systems
- Surinder Nath- Fingerprint Identification
- F. Brewester- Fingerprint Revolutionised with Illustrations.

Part-B

Practical

(100 marks)

CHAPTER-I

Taking of fingerprints

Recording of 10-digit fingerprints, plain & rolled fingerprints, manual methods & live scanner or Fingerprint enrolment devices (FED)

CHAPTER-II

Developments of latent fingerprints

Latent and visible fingerprints, fingerprints at the scene of crimes, lifting of chance prints, securing the SOC, photography in SOC, lifting of chance prints from different surfaces, plastic prints, magnetic brush. Techniques involved in development of latent fingerprints, use of various powders, magnetic and fluorescent powder, Cyano-achrylate chamber & fuming technique, visiting SOCs

CHAPTER-III

Lifting of latent fingerprints

Techniques involved in lifting of latent fingerprints, fingerprint on dark surfaces, diapositives, role of photography, macro & micro lens, visiting SOCs, modern techniques,

CHAPTER-IV

Packing of exhibits

Securing and preserving of the SOC and evidences. Visiting SOCs

CHAPTER-V

Comparison of partial, blurred fingerprints on documents

Use of various techniques & equipments for the purpose, document cases,

CHAPTER-VI

Comparison of questioned/latent fingerprints

Use of various techniques & modern trends.

CHAPTER-VII

Classification of Ten digit fingerprints

Henry system and other systems of classification & classification formulae

References

Books

- Criminal Investigation Practical Finger Printing - B.C. Bridges, August Vollmer and M. Monir
- Scenes of Crime Finger Prints in Police Investigation -M.M. Mehta
- Classifying Finger Prints by Nancy Cook
- Rai Bahadur, H.C. Bose -Finger Print Companion
- The Identification of Thumb Impressions and the cross Examination of Finger Print Experts-Harry Soderman &John J.O'Connell
- Decipherment of blurred prints-Anita T. Field
- Bridges- Practical Finger Printing
- E. Roland Menzel-Fingerprint Detection with lasers

Part-C

Viva-voce

(50 Marks)

Evaluation of the comprehensive efficacy of the candidate & to judge, whether, post-accreditations, he/she is equal to all the tasks a fingerprint expert needs to perform.