Evidentiary Value of Forensic Reports in Indian Courts

Himanshu Setia

Bar Council of Delhi, New Delhi, India himanshusetia8463@gmail.com

Available online at: www.isca.in, www.isca.me

Received 5th April 2016, revised 2nd June 2016, accepted 21st June 2016

Abstract

The forensic expert acts as an aid/tool in order to help the courts to arrive to justice. Experts use their skills and give their reports to the courts. This paper deals with the role of experts and the law relating to the admissibility of reports/opinions of forensic experts and other experts in the Indian courts. The reference has been given to number of case-laws; that how the court has considered and placed reliance upon the reports of various experts. The relevant discussion is regarding the relevancy and evidentiary value of the expert reports/opinions vis-à-vis law relating to the same.

Keywords: Forensic Science, Expert, Evidence, Relevancy, Medical, Ballistic, DNA, Foot-prints, Courts.

Introduction

Forensic Science plays a very significant role in the detection of any crime; it acts as an aid/tool to the investigation process. It's a science through which all physical evidences are collected and tested by forensic experts. It has been viewed as a last resort in many of the cases and the reports of forensic reports plays a very important role not only in terms of criminal justice system but also in terms of civil *lis* and other matters. Physical evidences should be collected from the scene of crime in a proper manner, so that experts should be able to conduct the tests of physical relevant evidences in the laboratories with proper reports.

There are many categories of forensic science which includes Forensic medicine, Ballistics, Fingerprints, Question Documents, Voice Analysis, Narco-analysis, etc. There are various forensic laboratories wherein, all the tests are conducted. A year back in New Delhi, a former minister's wife was found dead in a hotel in an unstable condition. In this case, forensic experts have played a very vital role; they have tested all the physical evidences, mainly, toxicology and pathology¹.

Thereby, it can be said that forensic science plays an important role as an aid to the courts to arrive to justice.

This paper deals with the important question of the evidentiary value (relevancy) of forensic reports or opinion of experts or opinion of third party, in Indian Courts. It further deals with how the courts look into, while considering a forensic report of an expert and what grounds/criteria in cases are considered, where the courts ask for a forensic report.

Law of Evidence

All the forensic reports or opinion of experts or opinion of third party when relevant, are admissible under Section 45 of the

Evidence Act, 1872 (hereinafter referred to as the 'Act'), which reads as follows: 45. Opinions of experts.—When the Court has to form an opinion upon a point of foreign law or of science or art, or as to identity of handwriting [or finger impressions], the opinions upon that point of persons specially skilled in such foreign law, science or art, [or in questions as to identity of handwriting [or finger impressions] are relevant facts. Such persons are called experts.

Section 45 to Section 51 of the Act deals with the expert evidence.

Who is an Expert

An expert is a person who has special knowledge related to some specific field, where he has devoted his time and has experience of the same.

The Courts in India in plethora of cases, have described that an expert is someone who has such special knowledge which need not be imparted by any University. He is a person having skill or experience in any art, trade or profession, which has been acquired by practice, observation or careful study and which is beyond the range of common knowledge.

As per the law of Indian Evidence, the Court has to form an opinion on the following: foreign law, science, art and identity of handwriting (or finger impressions). The opinions given on the aforesaid aspects are all relevant facts and person who give these opinions are known as experts. In nutshell, an expert is someone who is skilled in any particular field and having special knowledge².

Subject Matters of Expert Evidence

The subject matters of expert testimony as mentioned by the Act are foreign law, science, art and the identity of handwriting

or finger impressions. Other subject matters of expert evidence can be finger prints, brain-mapping, polygraph, DNA, ballistic, tracker dog and many more.

The medical opinions are admissible upon questions such as insanity, nature of the injuries, usage of the weapons to injure the decease or victim; etc. As far as field of art is concerned, the testimony of artists is admissible with respect the originality or value of a work of art and the opinion of a photographer is admissible with respect to its execution, etc.

The above list of expert testimony is only illustrative and not exhaustive. i. Section 47³ of the Act deals with the opinion as to the handwriting. The explanation to Section 47 elaborates the circumstances under which a person is said to have known the disputed handwriting.

A person who deposes the evidence is not necessary to be a handwriting expert. The knowledge and general character of any person's handwriting which a witness has acquired incidentally and unintentionally, under no circumstance of suspicion will be considered far more satisfactory than the most elaborate comparison of an expert.

This Section envisages that one can get acquainted with others handwriting in many ways. For example: The former might have seen a particular handwriting or he might be receiving letter from a particular person regularly. i. Section 48⁴ of the Act refers to the opinions of persons who know the existence of a general right or custom and when it is relevant. ii. Section 49⁵ of the Act refers to opinions as to usages; tenets etc. The opinions of persons having special means of knowledge thereon are relevant. iii. Section 50⁶ of the Act envisages that when the court has to form an opinion as to the relationship one person with another, opinion expressed by conduct as to such relationship by any family member or person having special means of knowledge on that subject is relevant.

For example: Whether P and Q were/are married. The opinion regarding the same is relevant. i. Section 51⁷ of the Act states that whenever the opinion of a person is relevant, the grounds are also relevant on which such opinion has been based. The grounds are the ones on which the expert opinion has been formed; it may be called as reasoning. ii. Section 45-A of the Act states that when the court has to form an opinion with regard to any computer resource or any other electronic or digital form, the opinion of Examiner of Electronic Evidence referred under Section 79-A of the Information Technology Act, 2008 is admissible under section 45-A of the Act, being a relevant fact.

Judicial Approach

It has been seen in the past that the expert opinions have only been limited to medical opinions. But now with the development of forensic science and technology, it has certainly reached to such heights that the expert evidence is not limited to the medical opinions but also extends to experts in other relevant fields. As far as, criminal law is concerned: ballistic experts, forensic experts, scientists, chemical examiners, psychiatrists, radiologists and even track-dogs are playing a very vital role in investigation of crimes and their evidence is admissible in the court of law. In plethora of cases, the Courts have asked for expert opinions.

Let us see the approach of the Courts towards the expert opinions:

Handwriting Expert: In the case of *Devi Prasad* v. *State*⁸, the Court held that evidence given by a person who has insufficient familiarity should be discarded. Indian Evidence Act insists that documents either be proved by primary evidence or by secondary evidence. Section 67 of the Indian Evidence Act prescribes the mode of proving the signature in a document. As far as, the opinion as to handwriting is admissible only if the condition laid down in Section 47 is fulfilled, that is the witness is established to have been acquainted with the writing of the particular person in one of the modes enumerated in this section. The opinion of an expert in handwriting should be received with great care and caution and should not be relied upon unless corroborated as it has been held in the case of *Punjab National Bank Ltd.* v. *Mercantile Bank of India Ltd.*⁹

Scientific Evidence: The scientific evidence which is referred in Courts should be based either on some scientific theorem or hypothesis and such evidence is expected to be empirical and properly documented in accordance with scientific method such as is applicable to the particular field of inquiry. The norms and standards for evidence may vary according to whether the field of inquiry is among the natural sciences or social sciences. It is a fact that scientific evidence is demonstrative evidence unlike oral testimony, which depends on the deposition of a witness.

Various scientific methods are used to obtain scientific evidence, which should be relevant and at the same time, trustworthy to become admissible in the courts. An expert witness is called to testify about the reliability of the scientific evidence sought to be introduced at trial.

The validity of the scientific method used for fingerprinting and foot printing is accepted by the Courts. In *Pritam Singh* v. *State of Punjab* ¹⁰; disputed footprints in blood near a dead body and going towards the bathroom, were compared with those of the accused taken in printer's ink. The expert gave evidence giving points of nine similarities in respect of the right foot and ten in respect of the left foot and three dissimilarities only in each case and explained the dissimilarities with reference to the different densities of blood and ink. It was held that the comparison stood the test well and under the circumstances these foot impressions in blood near the place of the incident, were proved to be those of the accused.

Res. J. Forensic Sci.

The Footprint identification is reliable as the bare feet contain friction ridge patterns which are unique to each individual. Hence, the finger prints and footprints found at the scene of offence can be used to help identify the offender and also the victim. As far as science of identification of foot prints are concerned, the court has held that it is not a well-established fully developed science, if in any given case evidence is found satisfactory, it may be used only to reinforce the conclusions as to identify the culprit already arrived on the basis of other evidence. Reference may be given to the case of *Mohd. Aman* v. *State of Rajasthan* ¹¹.

Medical Evidence: The courts have treated medical evidence as an important piece of evidence. DNA is one of the important medical blood test, where the paternity is a disputed question, the court has ample power to direct parties to undergo medical tests or give sample of blood for DNA to decide the paternity.

Deoxyribonucleic Analysis (DNA): Each person's genetic makeup contains DNA. This differs from individual to individual. DNA can be obtained through blood, saliva, semen, or hair. This helps in identifying a person. If a drop of blood or a strand of hair is found at a crime scene, it can be compared to a person's known DNA to see if there is a match, thereby linking the person to the crime. An expert witness can give an opinion about the likelihood that the blood that was found at the crime scene came from the individual whose sample was compared. DNA analysis is also used to establish paternity. Experts believe that the ability to link the culprit to the crime scene through his DNA prints is unquestionable as unlike conventional fingerprints that can be surgically altered, DNA is found in every tissue and no known chemical intervention can change it.

As far as paternity is concerned, now it has become very usual to direct the use of blood tests. Blood groups according to the scientists have a causative relation between the trait of the progenitor and that of the progeny. In other words the blood compositor of child may be of some evidence as to the child's paternity. The blood group tests are useful only to exclude the possibility that a man is the father. Sophisticated blood tests are now being adopted which are so advanced as capable of providing a very high or low probability of paternity. Tests made of the DNA can provide what can practically be regarded as certainty in paternity cases. See the case-laws below:

The Supreme Court in *Goutam Kundu* v. *State of West Bengat*¹² laid down guidelines governing the power of courts to order blood tests. The court held that: i. courts in India cannot order blood test as matter of course; ii. wherever applications are made for such prayers in order to have roving inquiry, the prayer for blood test cannot be entertained. iii. There must be a strong prima facie case in that the husband must establish non-access in order to dispel the presumption arising under section 112 of the Evidence Act. iv. The court must carefully examine

as to what would be the consequence of ordering the blood test; whether it will have the effect of branding a child as a bastard and the mother as an unchaste woman. v. No one can be compelled to give sample of blood for analysis."

But, the Supreme Court had advised against conduct of scientific tests of the nature of giving blood samples for the purpose of DNA testing in a routine manner but did not altogether ban their conduct upon third party.

In the case of *Rohit Shekhar* v. *Narayan Dutt Tiwari & Anr*¹³, wherein, the issue of paternity was concerned and the Delhi High Court ordered the respondent to undergo a DNA test, as the petitioner was able to produce DNA evidence which excluded the possibility that his legal father was his biological father and the judgment of the High Court was upheld in the Apex Court. i. Now, if in case of any conflict between eye-evidence and the medical evidence, the court will have to go by the evidence which inspires more confidence. In case of contradiction between medical evidence and ocular evidence, medical evidence is not to be given primacy¹⁴. ii. The evidence of an eye-witness not to be discarded on strength of a medical opinion¹⁵.

Tracker Dog Evidence: In Abdul Razak Murtaza Dafadar v. State of Maharashtra¹⁶: It has been observed that in India we have yet to accept the evidence of tracker dog as a substantive piece of evidence. The Hon'ble Supreme Court of India opined that even the evidence of dog-tracking, if admissible also does not have much weight in the present state of scientific knowledge. The same was reiterated in another case Ramla v. State¹⁷ where it was held that evidence of tracker dog was of little importance.

The Court also observed that no adverse inference could be drawn against the prosecution on the ground tracker was not examined by the prosecutor. It was further observed that in construing the words science or art a static view can no longer be tenable since expert testimony on subjects like telephony, psychiatry, identification of foot marks and tracker evidence is now admitted, as the same has been discussed above.

Typewriter Evidence: In *State* v. *S.J. Choudhary* ¹⁸, the Hon'ble Supreme Court held that the word 'science' iswide enough to meet the requirement of treating the opinion of a typewriter expert as admissible evidence, coming within the ambit of Section 45 of the Evidence Act. The opinion of a typewriter was considered as relevant by the Court as an expert opinion and was relied upon as admissible to decide the case.

Polygraph, Brain-Mapping and Lie Detection: Generally stating, the Courts may refuse to admit the results of a polygraph test as evidence.

Polygraph test measures a person's unconscious physiological responses which can be breathing, heart rate, and galvanic skin response, while the person is being questioned. It basically means that stress occurs when a person lies and that this stress is measured by changes in the person's physiological responses. These tests are considered as unreliable because it is not possible to convey whether the stress measured during the test is caused by the test itself or not.

The Supreme Court of India with regard to these tests has held in *Selvi* v. *State of Karnataka*¹⁹, that it expressly invoked the right of privacy to hold these technologies unconstitutional. The court held that such techniques invaded the accused's mental privacy which was an integral aspect of their personal liberty.

The Supreme Court after a thorough examination of the issue, directed that - "no individual should be forcibly subjected to any of the techniques in question, whether in the context of investigation in a criminal case or otherwise. Doing so would amount to an unwarranted intrusion into personal liberty."

However, the court, left the option open for voluntary submission to such techniques and held that the following 'Guidelines framed for the Administration of Polygraph Test (Lie Detector Test) on an Accused' by the National Human Rights Commission should be strictly followed and the same guidelines should be adopted for 'Narcoanalysis Technique' and 'Brain Electrical Activation Profile Test', which are as it is reproduced herein below: i. No Lie Detector Tests should be administered except on the basis of consent of the accused. An option should be given to the accused whether he wishes to avail such test. ii. If the accused volunteers for a Lie Detector Test, he should be given access to a lawyer and the physical, emotional and legal implication of such a test should be explained to him by the police and his lawyer. iii. The consent should be recorded before a judicial magistrate. iv. During the hearing before the magistrate, the person alleged to have agreed should be duly represented by a lawyer. v. At the hearing, the person in question should also be told in clear terms that the statement that is made shall not be a 'confessional' statement to the magistrate but will have the status of a statement made to the police. vi. The magistrate shall consider all factors relating to the detention including the length of detention and the nature of the interrogation. vii. The actual recording of the lie detector test shall be done by an independent agency (such as a hospital) and conducted in the presence of a lawyer. viii. A full medical and factual narration of the manner of the information received must be taken on record.

Therefore, these tests can be done with following the aforesaid guidelines.

Ballistic Evidence: In case of Ballistic experts (Bullet marks), their opinion cannot be rejected merely on the basis, that expert has not taken the photographs of the cartridges. In **S.G. Gundegowda** v. **State**²⁰, the report of the ballistic expert was

considered as admissible without calling him as a witness. In *Rchhpal Singh* v. *State of Punjab*²¹, it was held that in cases where injuries are caused by fire arms, the opinion of ballistic experts play a lot of importance and failure to produce the expert opinion before the trial court effects the credit worthiness.

Important Observations

In *Mahmood* v. *State of U.P.*²², the court held that it is highly unsafe to convict a person on the sole testimony of an expert. Substantial corroboration is required²³. Thereby, it is very evident that conviction cannot be granted only on the basis of forensic report of an expert.

In *State of Maharashtra* v. *Damu Gopinath Shinde*²⁴, the Supreme Court has held that without examining the expert as a witness in the court, no reliance can be placed on expert evidence.

In *Malappa Sidappa Alakumar* v. *State of Karnataka*²⁵, if there is a conflict between medical and ocular evidence, than ocular evidence shall be preferred over the medical evidence, in case ocular evidence is acceptable, trustworthy and reliable.

In this regard, it is worthwhile to remember the observations' of Dr. Arijit Pasayat J., His Lordship very rightly observed, in the case of *Ram Swaroop* v. *State of Rajasthan*²⁶ that, "A doctor is usually confronted with such questions regarding different possibilities or probabilities of causing injuries or post-mortem features which he noticed in the medical report may express his views one way or the other depending upon the manner the question was asked. But the answers given by witness to such questions need not become the last word on such possibilities. After all, he gives only his opinion regarding such questions. But to discard the testimony of an eye-witness simply on the strength of such opinion expressed by the medical witness is not conducive to the administration of criminal justice".

By keeping in view the above observations' and in view of the potential risk involved to an accuser's fair trial, the reference is given to a leading case of the Supreme Court of Canada, namely, *R.V. Mohan*²⁷ wherein, the Hon'ble Supreme Court of Canada drawn a criteria which must be considered before a witness may give expert opinion/evidence at the stage of trial; which in my understanding should be followed universally throughout the world.

Admission of expert evidence depends upon the following criteria²⁸: i. Relevance of the evidence; ii. Necessity of the evidence; iii. The absence of any exclusionary rule; and iv. A properly qualified expert.

Relevance: The evidence can only be admitted at trial if it is relevant and it can only be relevant when it makes the fact in issue more probable. But even it might be still excluded if the judge finds that the admission of the evidence would cause more

Vol. 4(6), 1-7, June (2016)

prejudice than its ultimate benefit. (The same principle can be seen in the Indian Evidence Act, 1872, as the Sections' dealing with the expert evidence falls under Chapter II of the Act, starts from Section 5 to Section 55, which has to pass the test of relevancy).

Necessity: In this case, the Canadian Apex Court clarified that in determining the necessity that why the expert/opinion evidence is required, the Court explained, "What is required is that the opinion be necessary in the sense that it provide information which is likely to be outside the experience and knowledge of a judge or jury."

Initially there used to be a general rule of evidence which used to known as "the ultimate issue rule." The Court held that now the ultimate issue rule no longer generally applies but the dangers contemplated by the rule are still relevant. Thereby, an expert's opinion that approaches the ultimate issue in the case must be carefully considered to make sure that it is truly necessary for the jury to hear. Lastly, if the judge or jury can consider the evidence in hand with their knowledge and experience than in that case, expert testimony may not be required.

Absence of Any Exclusionary Rule: Now if the above two stages exist in a particular expert evidence which is logically relevant to the issue at trial, then also in that case the evidence may not be admitted if its reception is prohibited by another exclusionary rule; e.g. hearsay evidence.

Properly Qualified Expert: As I have discussed above that the expert evidence must be knowledge. Proper qualification means that the expert must have acquired some special knowledge through study or some other experience in respect of matters on which he is proposed to give his opinion.

Conclusion

The above research envisages that the discretion lies solely with the court to admit the forensic report of an expert. The reference may be given to the case of *Krishan Chand* v *Sita Ram*²⁹, wherein there was a conflict of expert opinions', it was held that it is the Court which is competent to form its own opinion with regard to signatures on a document. It totally depends upon the facts and circumstances, and the opinion of the courts, which varies accordingly. As such, there is no provision in the Indian Evidence Act, 1872, which expressly states that expert evidence requires corroboration, but, practically stating as per my own experience; courts generally do not rely only on expert evidence, unless it is supported by other evidence. That is the reason, it has been observed by the Supreme Court of India in plethora of cases that it is highly unsafe to convict a person on the basis of sole testimony of an expert.

It is generally seen that in most of the cases, courts ask for the medical expert opinions. But practically stating, it is well settled that medical jurisprudence is not an exact science and it is indeed difficult for any medical expert to say with precision and exactitude as to when a particular injury was caused, so it is merely the duty of the expert to give his opinion. Thereby, it can be said as a general rule, the opinions of medical experts and other experts who has special skill in a particular field shall be admissible in the Court of law.

Recommendations and Suggestions: It can be suggested and recommended that the expert from the medical field should be encouraged to undertake medico-legal work. It has been seen above that the medical experts have played a very vital role as an aid to help the Courts to arrive at a logical and well-defined conclusion. And now, scientific experts/forensic scientists are also playing a crucial role especially in criminal matters and the testimonies of expert evidence have been relied upon by the Courts. The concern regarding the need to involve more professionals in expert opinion/testimony has been felt by various organizations³⁰. This objective of greater expert participation can only be achieved by addressing the apprehensions of various experts and I suggest and believe that the government of the day should come up with more institute's specialising in various fields of Forensic Science.

It is pertinent to refer to the report of Dr. Justice V.S Malimath Committee³¹, which suggested various reforms in the criminal justice system. The committee suggested that forensic science should be used comprehensively in the investigation of crime. According to the Malimath Committee, the DNA experts should be considered and included in the list of experts as given under section 293(4)³² of the Indian Code of Criminal Procedure (CrP.C), 1973.

Suggestions as per Malimath Committee Report: A DNA database at national level should be formed in order to help in fighting terrorism, various efforts must be taken to create awareness among prosecutors, judges, police machinery and general public; establishment of well-equipped laboratories are required to handle DNA samples and evidence and lastly, an enactment of specific law in the light of framing and giving guidelines to the police machinery and to set up uniform standards for obtaining genetic information and also the creation of adequate safeguards to prevent misuse of the same.

In view of the above, I would conclude this paper by citing the relevant observations' of the Hon'ble Supreme Court of India, wherein the Hon'ble Court has opined the necessity to strengthen the Forensic Science for detection of crimes; in the case of *Dharam Deo Yadav* v. *State of U.P.*³³, which is reproduced herein below: Para 30:*Criminal Judicial System in this country is at cross-roads, many a times, reliable, trustworthy, credible witnesses to the crime seldom come forward to depose before the court and even the hardened criminals get away from the clutches of law. Even the reliable witnesses for the prosecution turn hostile due to intimidation, fear and host of other reasons. Investigating agency has,*

therefore, to look for other ways and means to improve the quality of investigation, which can only be through the collection of scientific evidence. In this age of science, we have to build legal foundations that are sound in science as well as in law. Practices and principles that served in the past, now people think, must give way to innovative and creative methods, if we want to save our criminal justice system. Emerging new types of crimes and their level of sophistication, the traditional methods and tools have become outdated, hence the necessity to strengthen the forensic science for crime detection. Oral evidence depends on several facts, like power of observation, humiliation, external influence, forgetfulness etc., whereas forensic evidence is free from those infirmities. Judiciary should also be equipped to understand and deal with such scientific materials. Constant interaction of Judges with scientists, engineers would promote and widen their knowledge to deal with such scientific evidence and to effectively deal with criminal cases based on scientific evidence. We are not advocating that, in all cases, the scientific evidence is the sure test, but only emphasizing the necessity of promoting scientific evidence also to detect and prove crimes over and above the other evidence.

Lastly, it can also be concluded that: "Science is not an encyclopaedic body of knowledge about the universe. Instead, it represents a process for proposing and refining theoretical explanations about the world that are subject to further testing and refinement"³⁴.

References

- 1. Maithil B. P. (2012). Physical Evidence in Criminal Investigation and Trials. 1st Edition, Selective and Sceintific Books, Delhi, India, 5-45.
- Avtar Singh (2013). Principles of The Law of Evidence. 20th Edition, Central Law Publications, Allahabad, India, 243-245.
- **3.** Indian Evidence Act (1872). Opinion as to handwriting, when relevant. Reference: Section 47 of the Indian Evidence Act, India.
- **4.** Indian Evidence Act (1872). Opinion as to existence of right or custom, when relevant. Reference: Section 48 of the Indian Evidence Act, India.
- **5.** Indian Evidence Act (1872). Opinions as to usages, tenets, etc., when relevant. Reference: Section 49 of the Indian Evidence Act, India.
- **6.** Indian Evidence Act (1872). Opinion on relationship, when relevant. Reference: Section 50 of the Indian Evidence Act, India.
- 7. Indian Evidence Act (1872). Grounds of opinion, when relevant. Reference: Section 51 of the Indian Evidence Act, India.

- **8.** Beg M. (1967). Devi Prasad and Ors. vs State on 10 September, 1964. 1967, *Criminal Law Journal*, 64, 134, AIR (All India Reporter).
- Scott K. (1911). Punjab National Bank Ltd. vs Mercantile Bank of India Ltd. 13 BOMLR, 835, BOMLR (Bombay Law Reporter).
- **10.** Bhagwati (1956). Pritam Singh vs State of Punjab. SC 415, CriLJ 805, AIR (All India Reporter), SC (Supreme Court).
- **11.** Mukherjee M. K. (1997). Mohd. Aman vs State of Rajasthan. SC 2960, AIR (All India Reporter), SC (Supreme Court).
- **12.** Mohan S. (1993). Goutam Kundu vs State of West Bengal. AIR 2295, SCR(3) SCC (Supreme Court Cases).
- **13.** Rajiv Sahai Endlaw (2012). Rohit Shekhar vs Narayan Dutt Tiwari and Anr. 12 SCC 554, SCC (Supreme Court Cases).
- **14.** Pasayat A. (2005). State of MP vs Dharkole. AIR, SC 44, AIR (All India Reporter), SC (Supreme Court).
- **15.** Singh B. P. (2008). Ram Swaroop vs State of Rajasthan. AIR 2008 SC 174, also refer: Sunil Dattatarya Vaskar vs State of Maharashtra, AIR 2009 SC 210, AIR (All India Reporter, SC (Supreme Court).
- Ramaswami V. (1970). Abdul Razak Murtaza Dafadar vs State of Maharashtra SC 283, AIR (All India Reporter), SC (Supreme Court).
- 17. Dave D. (1963). Ramla vs State. *Criminal Law Journal*, 387.
- **18.** Verma J. S. (1966). State vs S. J. Choudhary 2 SCC 428, SCC (Supreme Court Cases).
- **19.** K. B. I. (2010). Selvi v. State of Karnataka. 7 SCC 263, SCC (Supreme Court Cases).
- **20.** Mirdhe (1996). S. G. Gundegowda vs State Karnataka. *Criminal Law Journal*, 852.
- **21.** Hegde S. (2000). Rchhpal Singh vs State of Punjab. AIR SC 2710, AIR (All India Reporter), SC (Supreme Court).
- **22.** Sarkaria R. (1976). Mahmood vs State of U.P. AIR SC 69, AIR (All India Reporter), SC (Supreme Court).
- **23.** Singh K. (1992). Mohd. Isa Khan vs State of U.P. *Criminal Law Journal*, 3987.
- **24.** Thomas (2000). State of Maharashtra vs Damu Gopinath Shinde. AIR SC 1691, AIR (All India Reporter), SC (Supreme Court).
- **25.** Ashok B. Hinchigeri (2009). Malappa Sidappa Alakumar vs State of Karnataka. AIR SC 2959, AIR (All India Reporter), SC (Supreme Court).
- **26.** Singh B. P. (2008). Ram Swaroop v. State of Rajasthan. AIR SC 1747, AIR(All India Reporter), SC(Supreme Court).

Vol. 4(6), 1-7, June (2016)

Res. J. Forensic Sci.

- **27.** Wikipedia (1994). R vs Mohan. CanLII 80, SCC (Supreme Court of Canada), Canadian Criminal Law.
- **28.** Brian Weingarten (2016). Expert Evidence in Canada. http://www.bwdefencelaw.com/expert-evidence-Canada-Mohan, 02.04.2016.
- **29.** Kumar M. (2005). Krishan Chand vs Sita Ram. AIR P & H 156, All India Reporter, Punjab & Haryana High Court.
- **30.** Paranjape N.V. (2012). Criminology & Penology with Victimology. 15th Edition, Reprinted, Central Law Publications, Allahabad, India, 642-660.
- **31.** MHA, India (2016). Committee on Reforms of Criminal Justice System. Ministry of Home Affairs, Govt of India,

- http://www.mha.nic.in/hindi/sites/upload_files/mhahindi/files/pdf/criminal justice system.pdf, 07.04.2016.
- **32.** The Code of Criminal Procedure (1973). Reports of certain Government scientific experts. Reference: Section 293 of The Code of Criminal Procedure (CrP.C).
- **33.** Murtaza I. (2014). Dharam Deo Yadav v. State of U.P. 5 SCC 509, SCC(Supreme Court Cases).
- **34.** The Supreme Court of United States of America (1993). Daubert v. Merrell Dow Pharmaceuticals, Inc. 509 U.S. 579, Also referred in Dharam Deo Yadav vs State of U.P, (2014) 5 SCC 509, SCC (Supreme Court Cases).