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Evidentiary Value of Forensics and its Legal Implications

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ABSTRACT

In the investigation and prosecution of civil and criminal proceedings, forensic evidence analysis is used. It frequently can help in establishing a suspect's guilt or innocence. It is also possible to link crimes that are thought to be connected using forensic evidence. For instance, DNA evidence may connect a single offender to numerous crimes or crime scenes (or exonerate the accused). Linking crimes helps police agencies discover and prosecute criminals by reducing the number of potential suspects and detecting patterns of crime.

The overview of forensic science has to be looked from the point of Archimedes¹⁹⁶⁰ as he is called as 'the father of forensic science. In the criminal justice system, forensic science is crucial because it gives precise information through the examination of physical evidence and the identity of the perpetrator using unique clues like fingerprints, footprints, blood droplets, or hair. Artifacts left at the scene and with the victim, or transported from the location and with the victim, serve to link the criminal to the crime. On the other side, the accused's innocence is established if the uncovered clues do not link the accused to the victim or the scene of the crime. Thus, in the modern world the existence of forensics is certainly a boon for the entire legal fraternity.

¹⁹⁶⁰ Aditya Jain, Evidentiary value of Fingerprints in Indian Criminal Justice System,(June 2021) <https://articles.manupatra.com/article-details/Evidentiary-value-of-Fingerprints-in-Indian-Criminal-Justice-System/> (Last Visited on – 22 December, 2022)

Keywords- Forensic evidence analysis, DNA, fingerprints, physical evidence

INTRODUCTION

First things first: it's important to define what the phrases "criminal trial" and "scientific evidence" entail. Simply put, scientific evidence is evidence that is offered in court that was obtained by scientific research or testing. Additionally, the criminal trial is the process used to determine how offences will be punished. The fact that criminal trials in our nation are drawn-out and difficult to understand is not a secret.

One definition of the term "forensic" is the use of scientific understanding to solve legal issues. A range of scientific disciplines collectively known as "forensic science" are concerned with applying their individual scientific fields of competence to matters pertaining to law enforcement, criminal, civil, legal, and judicial matters.

The judge is not expected to be an authority in every field, particularly when it comes to technical knowledge. He is incapable of making inferences from highly technical data. He needs an expert's help in these situations because they are expected to have more knowledge or experience with the topic. The science employed in forensic investigations establishes the type of evidence, identifying fingerprints, DNA matches, etc. An great scientist who performs his profession well can supply this evidence by examining several tests in which he is experienced.

"Forensic science is the application of science to legal problems. Any field of science that can help with the gathering, preservation, and analysis of evidence, such as chemistry (to identify explosives), engineering (to examine structural design), or biology, is employed in forensics (for DNA identification or matching). A forensic scientist is an expert in any technological subject and can analyse the evidence, testify as a witness regarding test results, provide technical support, and even

provide training in the discipline in which they specialise. In both civil and criminal cases, analysis of forensic evidence is used in the investigation and prosecution of the case. It frequently aids in proving the guilt or innocence of potential suspects. Additionally, forensic evidence is used to connect alleged crimes.¹

The case *Selvi v. State of Karnataka*¹⁹⁶¹, in which the Indian judiciary received a significant ruling. Smt. Selvi filed the initial batch of appeals in 2004. Subsequent appeals were filed in 2005, 2006, 2007, and 2010. On March 5, 2010, the Supreme Court took them all up as a group. *State of Maharashtra v. Dinesh Dalmia*¹⁹⁶² it was held as the accused may be taken to the lab for the testing without his consent, it was decided that the disclosure of the narcotics analysis testimony was entirely voluntary. Because of the Minimal Bodily Harm Technique, the Indian courts may be attempting to restrict the application of article 20(3).

There have been several claims that tests have been administered without the agreement of the accused, the suspects, and the witnesses in an inquiry. To identify suspects, forensic specialists examine physical evidence (fingerprints, DNA, hair, etc.) collected from the crime scene. In addition, forensic experts use picture manipulation technologies to find criminals who have evaded capture for a long time. It is challenging to do so using conventional methods.

COMPARITIVE ANALYSIS

Like India, England accepts expert advice as an exception to the "Opinion Rule." In 1923, the first step in deciding if scientific evidence was admissible toward the US was taken. The admissibility of forensic evidence is a contentious issue for US courts. Determining how much weight to give the expert opinion in light of the forensic findings is the main concern in this situation.

When it comes to criminal justice in India, the guilty person usually gets away while the innocents are punished. The reform must be strengthened and effective as a result. Therefore, the "Malimath Committee"¹⁹⁶³ advised that forensic science be given due consideration in contemporary technology for investigations and criminal proceedings.

The main goal of scientific research is to transform uncertainty into a practical assurance of guilt or innocence. However, due to the lack of adequate technologies up until recently, the courts were forced to depend heavily on non-scientific evidence. According to a 2011 survey, there were just 47 Supreme Court cases.

IMPORTANCE

1. These reports are frequently used for billing, affidavits, and as evidence of what was or was not found, among other things. These reports play a crucial role in a case. The expert reports and opinions submitted to various courts in India and overseas in accordance with Section 45 of the Indian Evidence Act, which received great praise for their expertise and correctness.¹⁹⁶⁴
2. Forensic science is the use of science in the usage of the law. Sciences used in forensics include any discipline that can aid in the collection, preservation and analysis of evidence such as
 - Chemistry (for the identification of explosives)
 - Engineering (for examination of structural design)
 - Biology (for DNA identification or matching).

¹⁹⁶¹ A.I.R 2010 S.C. 1974.

¹⁹⁶² 2006 CriLJ 2401

¹⁹⁶³ (Vol I) in March 2003.
[https://www.legalservicesindia.com/law/article/1983/39/The-Report-Of-Malimath-Committee-On-Reforms-Of-Criminal-Justice-System\(Last](https://www.legalservicesindia.com/law/article/1983/39/The-Report-Of-Malimath-Committee-On-Reforms-Of-Criminal-Justice-System(Last) Visited on 25 December, 2022)

¹⁹⁶⁴ Sec 45, Indian Evidence Act, 1973.

- a. Although the validity of the forensic evidence may be contested, it will still be acceptable if it is supported by further evidence.¹⁹⁶⁵
 - b. In most situations, forensic evidence assists in identifying the perpetrators of severe crimes like murder, rape, theft, burglary, and terrori 2.
 - c. Forensic scientists also create new methods and techniques for gathering and examining evidence. In this way, new technology can be applied and improved in order to uphold the highest standards of quality and accuracy as well as to keep forensic scientists on the cutting edge of research.
2. Forensic scientists also create new methods and techniques for gathering and examining evidence. In this way, new technology can be applied and improved in order to uphold the highest standards of quality and accuracy as well as to keep forensic scientists on the cutting edge of research.
 3. Forensic evidence is also used to link crimes¹⁹⁶⁶ that are thought to be related to one another. For example, DNA evidence can link one offender to several different crimes or crime scenes (or exonerate the accused). Linking crimes helps law enforcement authorities to narrow the range of possible suspects and to establish patterns of for crimes, which are useful in identifying and prosecuting suspects.

In *Chimanbhai Ukabhai v. State of Gujarat*¹⁹⁶⁷, the Supreme Court ruled in 1983 that the

¹⁹⁶⁵ Tristram Hodgkinson & Mark James, *Expert Evidence: Law and Practice* (2010).

¹⁹⁶⁶ Shvena Neendoor *Relevance Of Forensic Science In Criminal And Civil Proceedings*
<https://www.lawyersclubindia.com/articles/relevance-of-forensic-science-in-criminal-and-civil-proceedings-15017.asp>, (2021)(Last Visited on 21st December,2022)

¹⁹⁶⁷ AIR 1983 SC 484

medical evidence presented and analysed by the prosecution had corroborative value, making it admissible. In addition, the court noted that the medical testimony suggested that the complainant's injuries may have contributed to the person's death naturally as claimed. Also, Additionally, the medical evidence¹⁹⁶⁸ establishes the veracity of the alleged causes of harm independently, and this can subsequently be confirmed with eyewitness testimony. As a result, the testimony of such witnesses can be recorded and approved as acceptable. However, it is not viable to discount an eyewitness narrative based on an apparent discrepancy with medical data unless the medical evidence goes above and beyond to completely rule out all possibilities of injuries occurring in the manner reported by the eyewitnesses.

In the case of *Santosh Prasad @ Santosh Kumar v. State of Bihar*¹⁹⁶⁹, the supreme court ruled that the accused cannot be found guilty of rape based entirely on the prosecutrix's statement unless her testimony is impeccable. The prosecutrix's statement or evidence was scrutinised by the top court in the landmark decision, but it turned out that it did not agree with the doctor's medical testimony. As a result, the Court thought about the bigger picture and addressed the question of whether the accused can be found guilty based solely on the prosecutrix's deposition even when the medical evidence and the testimony of the other witnesses do not support it.

From the analysis above, it is clear that the prosecutor's case must be supported by the medical evidence in order to establish the crime of rape. Additionally, as stated by a number of other important cases, including *Piara Singh v. Territory of Punjab*¹⁹⁷⁰, the court must take into account the evidence that is consistent with the direct evidence or whose testimony is consistent with the facts of the

¹⁹⁶⁸ Dr Goswami, Ips, *Legal Issues Related To DNA Fingerprinting In Criminal Justice System*

¹⁹⁶⁹ CA 264/2020,SLP(Criminal) No.3780/2018)

¹⁹⁷⁰ 1969 AIR 961

prosecutrix's deposition when two medical evidences contradict one another and are on an equal footing to form an expert opinion.

HISTORY

In order to investigate murder cases, forensic science was first applied in Europe in the 16th century. In Edinburgh, the United States created the Forensic Medicine Chair in 1807.

As a result, in 1849, the Department of Health established the first Chemical Examiner's Laboratory in the then-Madras Presidency for this purpose.

Similar labs were afterwards established in Calcutta (1853), Agra (1864), and Bombay (1864), respectively (1870). In order to provide scientific support to the criminal justice delivery system within their limited resources, these laboratories were set up to handle toxicological analysis of viscera, biological analysis of blood, semen, etc. stains, and chemical analysis of food, drugs, and various excisable materials. Additionally, the courts received analytical support from these labs.

The Department of Explosives was created in 1898 with the appointment of the first chief explosives inspector, who had his headquarters in Nagpur. Later, there were five regional offices in Calcutta, Bombay, Agra, Madras, and Gwalior in addition to the three sub-offices at Shivkashi

Institute named as Serology Department' was established in Calcutta in 1910¹⁹⁷¹

A Footprint Section was founded in 1915 by the Government of Bengal's CID, which assisted law enforcement in identifying criminals by examining footprints gathered from crime scenes. In order to examine fake currency notes, the Government of Bengal's CID established a Note Forgery Section in 1917

Under the Calcutta Police, a small ballistic laboratory and an Arms Expert were established in 1930 to handle the investigation of firearms.

A Scientific Section was established under the CID in Bengal in 1936, and facilities were built to examine bullets, cartridge cases, weapons, and other instruments of crime.

In 1952, Calcutta became the first state in India to establish a forensic science laboratory. In the year 1953, this laboratory was fully operational.

In 1905, the Central Fingerprint Bureau (CFPB) was founded in Shimla, India.

In 1956, the top detective training school in India, CDTs, Calcutta, was founded (Central detective training school at Calcutta),¹⁹⁷².

In 1957, the first Central Forensic Science Laboratory opened its doors in Calcutta. This lab was initially divided into four fundamental disciplines: forensic physics, forensic chemistry, forensic biology, and forensic ballistics. On the model of the CDTs in Calcutta, the Central Detective Training School in Hyderabad was founded in 1964. A second one was built in Chandigarh in 1973.

In 1960, the Indian Academy of Forensic Sciences (IAFS) was founded.

The Institute of Criminology and Forensic Science (ICFS) was founded in Delhi in 1971 with the specific goals of providing in-service employees with training and performing forensic science research.

Scientific techniques like blood test, DNA test¹⁹⁷³, autopsy report, blood stains etc., hold a great evidentiary value when it comes to deciding criminal cases. Blood or basic stains on the materials of the prosecutrix of the accused, spermatozoa near the vaginal emission, denunciation examination, and loss of virginity indicators are all examples of signs of the offence of rape.

¹⁹⁷¹ History and Development of Forensic Science in India Tewari RK, Ravikumar, KV, Bureau of Police Research & Development, Ministry of Home Affairs Government of India, New Delhi, India, jp00100

¹⁹⁷² Id.

¹⁹⁷³ The Importance of Forensic Science in Criminal Investigations and Justice, IFF LAB (2017), <https://ifflab.org/the-importance-of-forensic-science-in-criminal-investigations-and-justice/> (last visited Apr 26, 2021).

However, the court exercised its discretionary authority under Section 45 of the Indian Evidence Act to include medical evidence and relied on the direct and coordinate evidences offered by the prosecutrix and her parents as witnesses to find the defendant guilty. In the instance of Gurmeet Singh, however, the medical evidence supported the prosecutrix's statement, but the Trial Court had found the accused innocent on false grounds, such as the fact that the woman routinely engaged in sexual activity and had questionable morals. The Supreme Court of India considered the medical evidence and relied on the girl's testimony when the prosecutrix appealed, which led to the respondents' conviction. The intriguing thing about this case is that, despite the fact that the medical evidence supported the prosecutrix's statement, the Apex Court specifically said in its ruling that the testimony of the prosecutrix did not need to be supported by any other evidence. Thus, it is clear from both of these precedent-setting decisions that the nature of medical evidence is one of total corroboration and that the law never relies entirely on it to resolve a case. Along with the medical data, other elements and proof are taken into account. However, the court exercised its discretionary authority under Section 45¹⁹⁷⁴ of the Indian Evidence Act to include medical evidence and relied on the direct and coordinate evidences offered by the prosecutrix and her parents as witnesses to find the defendant guilty. In the instance of Gurmeet Singh, ¹⁹⁷⁵ however, the medical evidence supported the prosecutrix's statement, but the Trial Court had found the accused innocent on false grounds, such as the fact that the woman routinely engaged in sexual activity and had questionable morals. The Supreme Court of India considered the medical evidence and relied on the girl's testimony when the prosecutrix appealed, which led to the respondents' conviction. The intriguing thing about this case is that, despite the fact that the

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ANALYSIS

In India, fair justice is based in large part on medical evidence. In a prosecution case, the prosecutor offers proof of the accused's guilt, and the court decides based on that proof. These two approaches have a crucial component that unites them all: expert or specialist testimony. Expert testimony, like that offered in court by medical professionals, must be of utmost significance. The opinion of the medical expert has always been considered significant evidence because it is based on scientific understanding that may not be easily accessible or understandable to those without technical understanding, such as judges.

According to the Indian Evidence Act of 1872, medical evidence may be used to support other types of evidence in India. Medical evidence, which is considered expert proof, is a significant and necessary aspect of the evidence, especially in cases involving crimes against women. In criminal trials, expert evidence is unavoidable, so the government has developed labs and other institutions in the nation that provide scientific services to the criminal court system. Thus, the researcher may arrive to the conclusion that witnesses and evidence are crucial to the law's ability to administer justice. The most essential aspect in deciding if the court will rule in favour of the prosecution or the defence is the evidence heard by the court.

Oral testimony may be thought of as having precedence over medical evidence since witnesses are justice's eyes and ears. The oral

¹⁹⁷⁴ Sec 45, Indian Evidence Act, 1973
¹⁹⁷⁵ 1996 AIR 1393

evidence must be accepted if it is determined to be reliable, factually sound, and establishes probability; it cannot be discounted on the basis of fictitious medical evidence. The medical officer's testimony must be given some weight because he is an expert witness, but not excessively. However, as there is no unquestionable presumption that a medical officer is a trustworthy observer of reality, his testimony must be evaluated and taken into account in the same way as any other regular witness' testimony. Therefore, it is appropriate to maintain the corroborative rather than conclusive status of medical evidence, rather than granting it conclusive status, because many conditions must be considered

Let us consider the case of Dharam deo Yadav v. State of U.P.¹⁹⁷⁶

Background –A 22 years old tourist namely Diana from New Zealand was murdered in Varanasi. Her father's blood sample and the skeleton's DNA matched. On the basis of circumstantial evidence accused was convicted

Observation---- The Supreme Court before pronouncing judgment has explained the crime scene management and the importance of forensics science. The court in the judgment has emphasized the need to adopt scientific methods in crime detection to save the judicial system from low conviction rates. Further underlined the need to improve forensic science for criminal investigation. It stated that the DNA sample from the bones matched with the blood sample of the dead person's father in the current case. Experts whose scientific competence and experience were uncontested in these proceedings performed all of the sampling and testing. It was of the opinion that therefore, the prosecution succeeded in showing that the skeleton recovered from the house of the accused was that of Diana.

The main problem here is to decide how much weightage to be given the advice given by the

experts with the forensic evidence. When it comes to criminal justice in India, the guilty person usually gets away with it while the innocents are punished. Due to this reason, the reform needs to be improved and effective, the Committee known as the 'Malimath Committee' recommended that in order to conduct investigations and follow legal procedures using modern technologies, forensic science must be given due consideration.

PROBLEMS RELATED WITH FORENSIC EVIDENCE

- **Unreliable or invalid forensic discipline.** Some forensic techniques employed in criminal investigations have been shown in studies to be inconsistent in their ability to deliver reliable results. An analysis that is incorrect and inaccurate is a bite mark comparison.
- **Insufficient validation of a method.** There hasn't been enough research to prove the validity of some of the forensic disciplines currently in use, even if they might be able to regularly produce reliable results. Large, carefully planned research should be used to determine a method's accuracy. The outcomes of an analysis cannot be evaluated without these research. A method that has not received enough validation is the analysis of shoeprints as a foundation for determining the specific source of a print.
- **Misleading testimony.**
 - Sometimes, forensic testimony exaggerates or overstates the relevance of parallels between evidence from a crime scene and evidence from a specific person (a "suspect" or "person of interest"), or it oversimplifies the information. Examples include testimony that implies that a group of characteristics is singular or exaggerates how uncommon or rare it would be to

¹⁹⁷⁶ (2014) 5 SCC 509

observe these characteristics, implying that it is highly likely that the suspect is the source of the evidence, and testimony that does not convey all reasonable inferences, as can occur with masking in serology testing.

- There are situations when forensic testimony minimises, downplays, or ignores the importance of an analysis that shows a person shouldn't be considered a suspect. A testimony that an analysis is "inconclusive" when it actually excluded the suspect is an example of this.
- Information on the methodologies' restrictions, such as their error rates and the circumstances in which they have been and have not been shown to be viable, is occasionally absent from forensic testimony
- Forensic professionals are human, and they can mix up samples or contaminate specimens. These can happen in any laboratory experiment or branch of science, even those that are highly developed and validated. In some cases, forensic analysts have fabricated results, hidden exculpatory evidence, or reported results when testing had not been conducted.
- Committee on Reforms of Criminal Justice System, Government of India, Ministry of Home Affairs, Report, Volume 1, March 2003

RECOMMENDATIONS AND SUGGESTIONS

- 1) Apt training policy should be evolved for police. They have to be trained in advanced technology, innovative dynamics of forensic science, efficiency and use of modern forensics methods.

Police Investigating Officers should undertake systematic proficiency training in scientific investigations.

- 2) Each and every police station should be equipped with latest 'investigation kits' and taking help of forensic expert of each subject area must become compulsory during crime scene investigation.
- 3) Forensic science lab specialists need training in testimony in the courts as well as knowledge of law before utilizing any advanced technologies. Forensic science laboratories should embolden scientists to carry out research on the data available with the labs after trials are completed. This could help in appropriate coordination of their scientific reports and their presentation during deposition in courts
- 4) The Judges must have major knowledge and training in forensic analysis. In most of the cases of murder, rape, assassination, sexual assault, burglary, homicide, etc. the forensic material evidence plays an insignificant role. It is suggested to introduce training program for newly recruited Prosecutors and Judges, a part of which should be with the police and forensic laboratories to educate them regarding the investigation lines with the aspect of forensic sciences.
- 5) Continuous interaction of Judges with scientists would stimulate and widen their knowledge to deal with such scientific evidence and to effectively deal with criminal cases based on scientific evidence. The researcher is not promoting that, in all cases, the scientific evidence is the sure test, but only emphasizing the compulsion of promoting scientific evidence to detect and prove crimes over and above the other evidence.

CONCLUSION

The examination reveals that it is very important to conduct investigations methodically and to make all types of scientific evidence admissible in courts due to the changing crime-patterns and "development" of criminals. The Honorable Supreme Court stated it well when it said, "We must not forget that the aim of criminal law process is to find the truth and not to shelter the accused from the consequences of his action."¹⁹⁷⁷ In reality, the administration is arming the abnormal individuals by deploying antiquated investigative techniques. Any country's legal system is, in essence, a representation of and a foundation for the common law of the state. Law must be in line with the diverse needs and aspirations of society as a whole in order to be effective. Therefore, when scientific instruments are available, investigating authorities must use them to apprehend offenders. Additionally, forensic evidence should be used and admitted more often in Indian courts.

The main relevance of using forensic science for producing evidence is for availing a fair justice. This is done so that the actual crime should be punished and not the innocent one. Forensic evidence has always helped in many cases for identifying the actual criminal and then the court provides him with punishment. The forensic evidence is more valuable than the general evidence produced in the court. Though sometimes there are some flaws in the evidence, which is very rare. More experts should be recognized for always providing information and relevant evidence regarding the case, and hence the case can be solved on that basis. There can be more development in the country by making our forensic science grow. This can make strict rules on punishing the accused. Forensic evidence is scientific evidence, such as DNA, trace evidence, fingerprints, or ballistics

reports, and can provide proof to establish a person's guilt or innocence.

BIBLIOGRAPHY/REFERENCES

1. Aditya Jain, Evidentiary value of Fingerprints in Indian Criminal Justice System, (June2021)<https://articles.manupatra.com/article-details/Evidentiary-value-of-Fingerprints-in-Indian-Criminal-Justice-System>(Last Visited on - 22 December, 2022)
2. Selvi v. State of Karnataka A.I.R 2010 S.C. 1974
3. State of Maharashtra v. Dinesh Dalmia 2006 CriLJ 2401
4. History and Development of Forensic Science in India Tewari RK, Ravikumar, KV ,Bureau of Police Research & Development, Ministry of Home Affairs Government of India, New Delhi, India,jp00100
5. Sec 45 , Indian Evidence Act, 1973.
6. Tristram Hodgkinson & Mark James, Expert Evidence: Law and Practice (2010).
7. Shvena Neendoor Relevance Of Forensic Science In Criminal And Civil Proceeding(<https://www.lawyersclubindia.com/articles/relevance-of-forensic-science-in-criminal-and-civil-proceedings-15017.asp>, (2021)(Last Visited on 21st December,2022)
8. ChimanbhaiUkabhai v. State of Gujarat AIR 1983 SC 484
9. Dr Goswami, Ips, Legal Issues Related To DNA Fingerprinting In Criminal Justice System
10. Santosh Prasad @ Santosh Kumar v. State of Bihar CA 264/2020,SLP(Criminal) No.3780/2018)
11. Piara Singh v. Territory of Punjab Writ Petition(s)(Criminal) No(s).119/2020
12. History and Development of Forensic Science in India Tewari RK, Ravikumar, KV ,Bureau of Police Research & Development, Ministry of Home Affairs Government of India, New Delhi, India,jp00100

¹⁹⁷⁷ Rishi Kesh Singh and Ors. vs The State (1968), AIR 1970 All 51.

13. History and Development of Forensic Science in India Tewari RK, Ravikumar,KV ,Bureau of Police Research & Development, Ministry of Home Affairs Government of India, New Delhi, India,jp00100
14. The Importance of Forensic Science in Criminal Investigations and Justice, IFF LAB (2017), <https://ifflab.org/the-importance-of-forensic-science-in-criminal-investigations-and-justice/> (last visited Apr 26, 2021).
15. Mukesh and Others v. State for NCT of Delhi and Others Writ Petition(s)(Criminal) No(s).119/2020
16. Mohd. Akhtar vs The State Of Jammu And Kashmir ,2018, WP-85/2018
17. Kathua Rape Case, the Hall of Shame , Fotrensic Genesis,2021 <https://forensicgenesis.wordpress.com/2020/07/19/kathua-rape-casethehallofshame/#:~:text=Forensic%20Evidence,she%20was%20raped%20and%20murdered.>
18. Ranjit Hazarika v. State of Assam (1998) 8 SCC 635
19. State of Punjab v. Gurmeet Singh 1996AIR 1393
20. Sec 45, Indian Evidence Act, 1973
21. Dharam deo Yadav v. State of U.P,(2014) 5 SCC 509
22. Rishi Kesh Singh and Ors. vs The State (1968), AIR 1970 All 51.