

## Forensic Investigation of Suspected Document for Alteration, Erasures & Obliteration

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### ABSTRACT

The research paper present alteration is in the present scenario is faster crime which causes huge loss of money and property minute addition or modification, erasure or obliteration can hide important entries or change the meaning of whole sentences cause huge loss. In the present study 10 suspected samples were provided and collected for the “Examination of suspected document for alteration, erasures and obliteration.” Out of which 2 samples is of alteration, 1of erasures and 1of obliteration and 1 has no alteration the research study was carried at FSL, Lucknow. The examination is done by VSC 6000 in different source of light and stereoscopic microscope.

**Keyword:** Alteration, obliteration, VSC 6000, stereoscopic microscope and UV.

### INTRODUCTION

Document mentions to something that contains information. <sup>[1]</sup> That information can be held on wax, tapes or stored electronically. In another words documents are those which are not only made of paper but also other materials which can bear written messages. For example, boards, walls or even bodies can all bear written messages. Altering, forging or creating any type of document with the intention to defraud is considered as a forgery. Adapting, imitating or making objects, documents or statistics with intention of cheat for changing the perception of anyone and to earn money by selling the forged items are considered as forgery. <sup>[2]</sup> Forensic document inspector often deals with questions of document

genuineness. To determine whether the document is genuine, a scientist may attempt to confirm who create the document, identify the material, ink used in its preparation and uncover modification to the original text. Here in forensic laboratory in India, expert commonly receive many types of document forgery cases such as cheque, power of attorney, testaments, property papers, school college registers, medical bills, cast certificates, pan card, voting I-card, and ration card for forensic examination. <sup>[3]</sup> The advance of digital technology has extremely different the idea of written document and, along with it, the environment and commission of white-collar crimes. Due to revolutionary changes made probable by new technology, forgers are becoming tech-savvy and are adept of fabricating documents with or without signatures using the skills and tools these modern technologies afford. <sup>[4]</sup>

### MATERIALS AND METHODS

In this paper samples of alteration, erasures and obliteration were collected from banks, university and FSL Lucknow. The samples were examined by the help of instruments linen tester, stereoscopic microscope, UV chamber and VSC 6000. The results were record on the appropriate sheet. First these samples were observed by the naked eyes for the character tics features like thickness, abrasion on surface of paper, unusual spacing, spreading a feathered ink. Erasures by knife, rubber were firstly observed for abrasion on surface of paper and thickness because the removal

of surface fiber makes the erased area comparatively thinner and also show feathered ink line this were examined by transmitted and oblique light. Chemical erased samples were observed by the UV rays play a significant role in the detection. Obliterated samples examined under strong light at various angles particularly with transmitted and UV light.

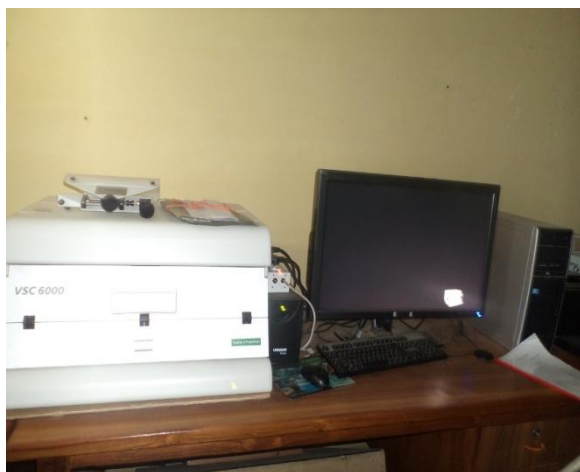


Fig 1. VSC 6000



Fig 2. UV Chamber

## RESULTS

### Case no.1

A suspected check provide for examination of alteration. After examination that was found addition of “a” and “1” in Shayama and amount 14000 with different pen.

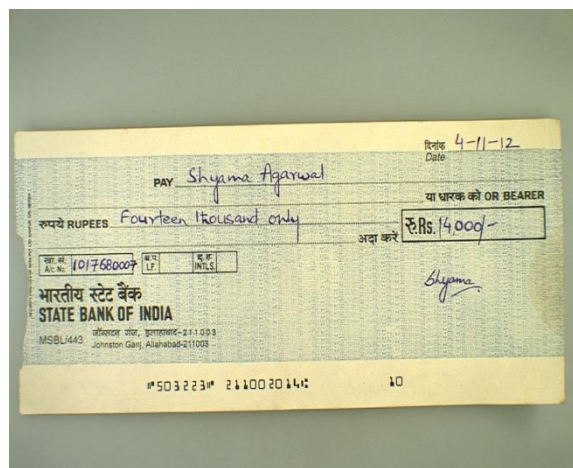


Fig 3. Sample. 1

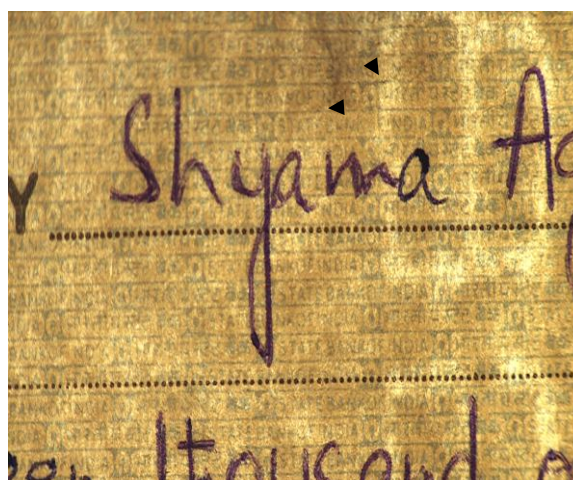


Fig. 4. Examination under transmitted light shows the addition of “a” with different ink

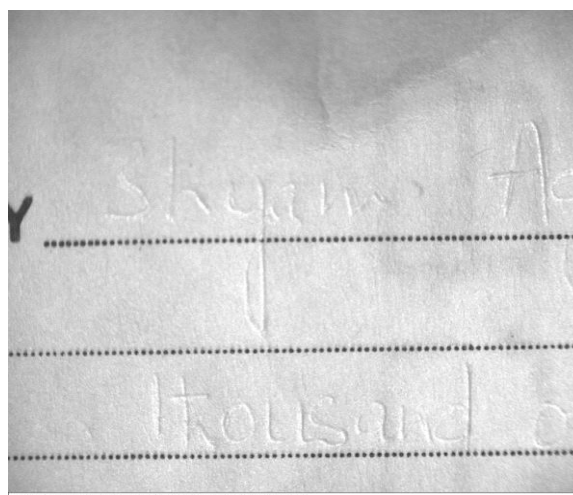


Fig. 5. Absorption under IR light “a” became fade

### Case no.2:

A suspected certificate collected for examination. Modification in letter R was seen by an upper stroke letter “K” was modified in “R”



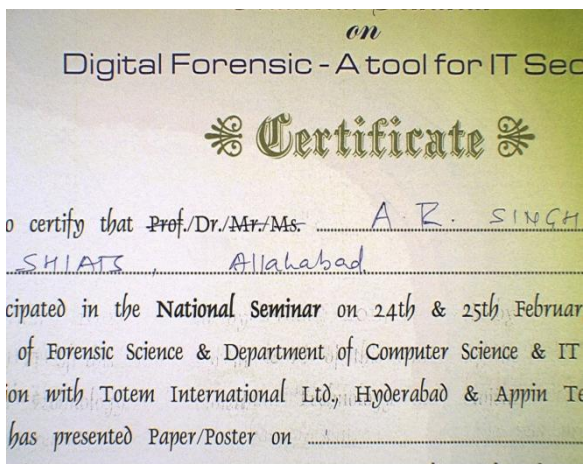


Fig. 6. Sample.2

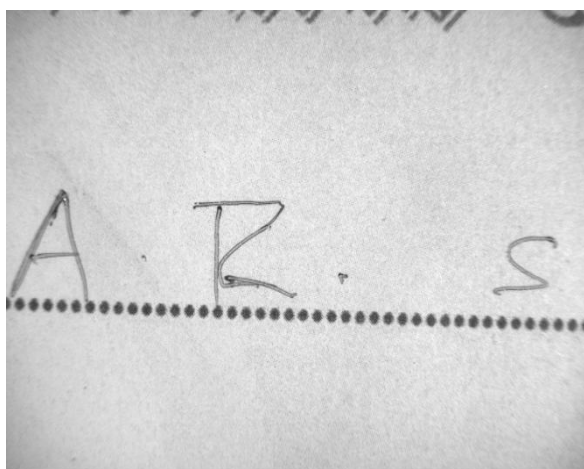


Fig. 7. Absorption under IR light at 674 nm show additional stroke in R.

**Case no.3:**

A suspected certificate provided for examination. After examination in VSC under spot and transmitted light erasure and addition was found in the name Vijay.

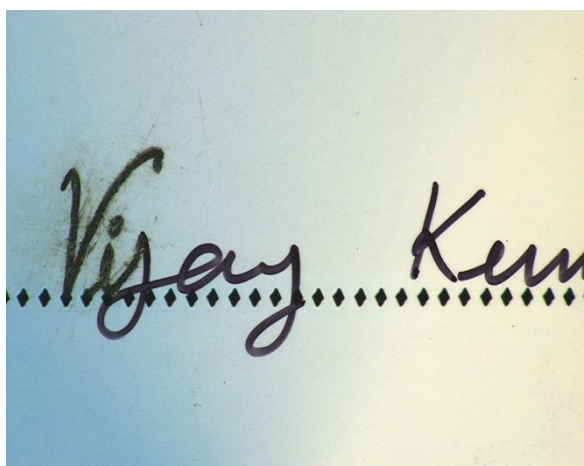


Fig. 8. sample 3

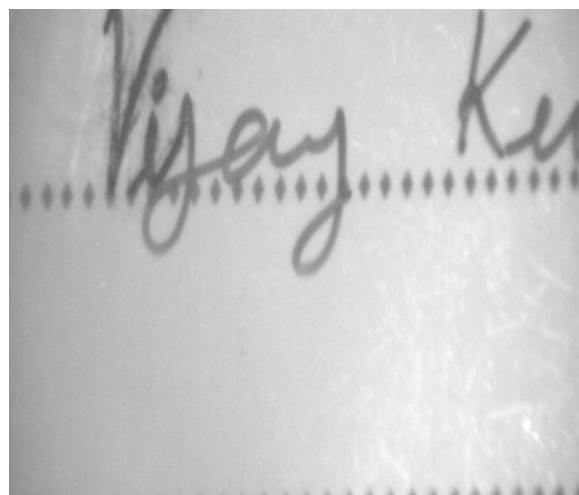


Fig. 9. Examination under spot light shows an erased stroke in V. shows that it was letter A

**Case no.4:**

A suspected document of obliteration was provided for examination. Obliterated figure 13800 was decipher by spot and flood light

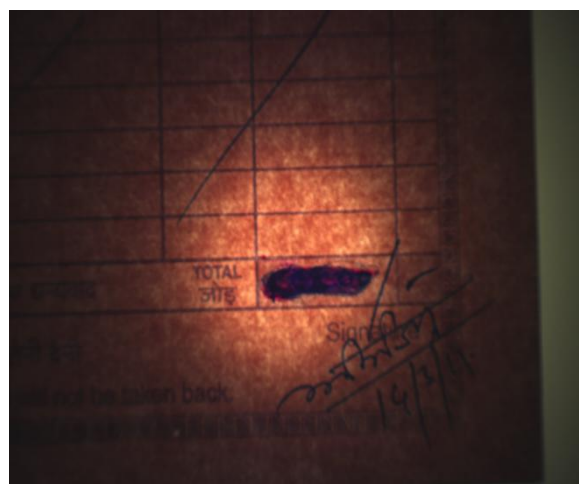


Fig. 10. Sample 4



Fig. 11. Examination in spot light obliterated figure became visible.

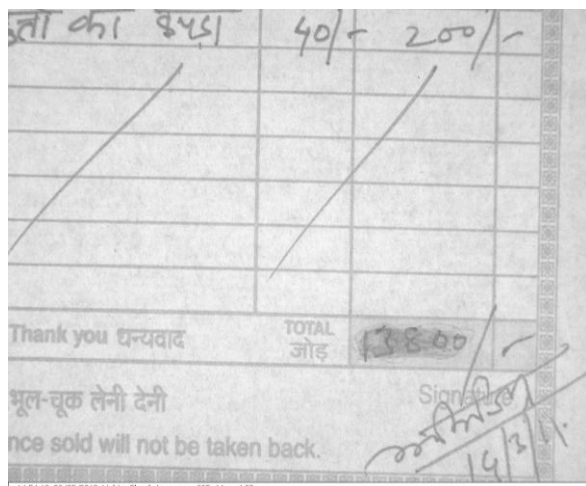


Fig. 12. Examination under flood light obliterated figure 13800 clearly visible.

### Case no.5:

Sample provided for examination doubt of alteration after examination found that there is no alteration or may be done with same pen.

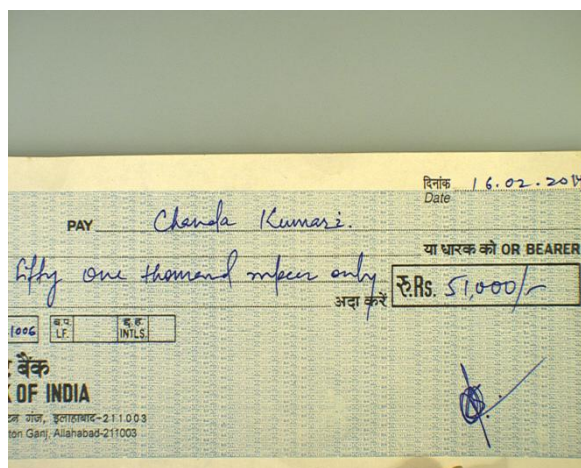


Fig. 13. Sample 5

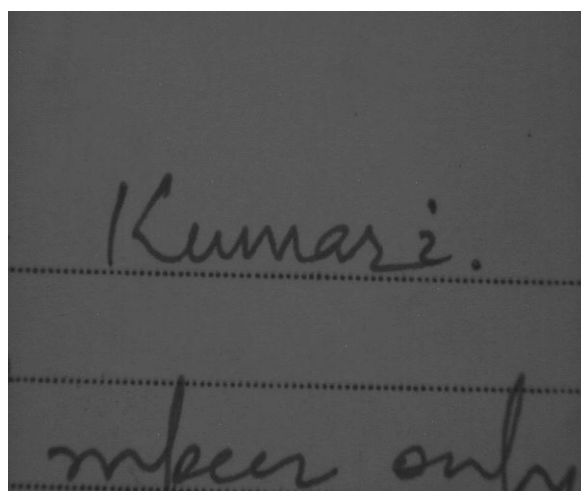


Fig. 14. Examination under UV light at 365 nm.

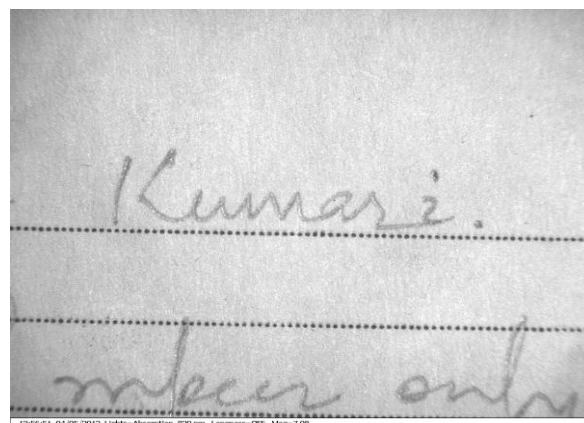


Fig. 15. Absorption under IR at 829 nm shows no alteration or may be with same ink.

## DISCUSSION

In the sample (S1) there is doubt in the name observed in linen tester a addition is shown in the amount which was 14000 and name Shyama. This check observed in VSC 6000 under in transmitted light letter “a” of Shyama was written by different ink. Then absorption under IR light and flood light. “1” of 14000 and last “a” of Shyama was became fade because each pen ink has different composition and they absorb particular wavelength of light. [5]

- In the sample (S2) modification in the name was shown k has an additional stroke appear like R.
- In the sample (S3) erasure was seen in the name Vijay. Letter A was erased and modified into V addition done with different ink pen.
- In the sample (S4) a suspected slip was provided for examination after examination under transmitted UV light and flood light the obliterated figure 13800 was decipher.
- In the sample (S5) a suspected check for alteration in name was examined there was no change and no difference in ink that was writer habit to write like that or the addition was done by the same ink pen VSC instrument cannot detect this type of samples.
- The samples in which alteration, obliteration was done by same ink or approximately same ink composition VSC 6000 not differentiates this type of samples are neglected in the Laboratory.

## CONCLUSION

- The motive of this study was to examine the alteration, erasures and obliteration in the suspected document and from the results reported .Concluded that sample was of alteration in which 1 has addition in name and 1 of physical erasure, 1 of obliteration and 1 has no alteration.
- The suspected samples were examined under linen tester and stereoscopic microscopic magnification. After that VSC 6000 these methods are provided the significant results.
- If the same ink pen used for alteration or obliteration VSC cannot differentiate the pen and not detect the alteration.

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