SUMMARY AND CONCLUSIONS

The present study has been conducted on the randomly collected writing samples of 500 individuals irrespective of their sex to study the various writing characteristic features in the handwriting of a person which are common, peculiar and are useful in determining the left and right hand writings of the persons.

The writing samples were collected from the subjects ranging 18-65 years of age, who were studying or working in various organizations such as schools, colleges, universities, private and public sectors etc. consisting of 250 left handed and 250 right handed persons. The subjects were familiar with the writings in English language. The three writing samples were taken from each individual according to their accustomed hand whether it is left or right hand, while using three types of commonly used writing instruments such as fountain, gel and ball point pen, on white executive bond paper. The matter was dictated to them and they were not allowed to see their previous writing samples taken for the present study. To study the characteristics of each alphabet of Roman script in Capital and Small forms and digit 0-9, the samples were taken from the paragraph as per the Huber & Headrick (1999).

The writing samples were studied with the help of epidiascope, universal dactyloscopic outfits, Hand lenses, Palmer magnifiers of 10X to 40X power, microscopic lenses.
Compound Microscope, Ultraviolet Lamp, Stereomicroscope and other necessary geometrical instruments. The writing samples were very critically and exhaustively examined with regard to the general as well as individual writing characteristics and for identifying characteristics features in determining left and right hand writings and the following conclusions have emerged out from the present study:

1. The left-handed persons have the more artistic arrangement of letters and words in writing (47.6%) than the right-handed persons (36.9%).

2. The right-handed persons have more tendencies towards ascending alignment (42.2%) as compared to the left-handed persons (27.3%). While the left handed persons have more tendencies towards descending alignment (37.4%) as compared to the right handed persons (28.9%).

3. The right-handed persons have more inclination towards the small cum medium relative size and proportions of letters and words (41.7%) as compared to the left-handed persons (33.2%). The left-handed persons have more inclination towards the medium cum large relative size and proportions (36.6%) as compared to the right-handed persons (25.8%).

4. The left handed persons are more prone to left down slant (56.4%) as compared to the right-handed persons (38.7%). While the right-handed persons are more prone
to right down slant (46.1%) as compared to the left
handed persons (23.4%).

5. The left handed persons have higher frequency of small
cum medium size of the letters (61.5%) as compared to
the right handed persons (55.5%).

6. The right handed-persons have higher value for finger
cum wrist movement (61.8%) as compared to the left-
read-handed persons (55.9%).

7. The right-handed persons have higher value for large
spacing between the letters and words (23.6%) as
compared to the left-handed persons (13.9%).

8. The right-handed persons apply light pressure more
(51.5%) as compared to the left-handed persons (42.2%).

9. The left-handed persons use more graduated shading
(68.2%) as compared to the right-handed persons
(57.7%).

10. The right-handed persons adopt more medium cum fast
speed in writing (54.7%) as compared to the left-handed
persons (42.9%).

11. Most of the right-handed persons use pen position at 30-
70 degrees (63.1%) as compared to the left-handed
persons (45.5%). While most of the left handed persons
use pen position at 45-95 degrees (54.5%) as compared
to the right-handed persons (36.9%).

12. The left-handed persons use more styles in combinations
(41.0%) as compared to the right-handed persons
(32.4%).
13. The left-handed persons acquire pen scope more extended (16.8%) as compared to the right-handed persons (8.1%).

14. In the left-handed persons only 12.9% of the persons show tremors due to old age and weak muscular coordination as compared to the right-handed persons 10.8%.

15. The left-handed persons show retouchings in 1.2% of the persons while in case of right-handed persons 0.9% persons show retouchings. This is not a significant difference.

16. The right-handed persons have higher medium cum good skill & penmanship (49.8%) as compared to the left-handed persons (43.2%).

17. The left-handed persons exhibit more good line quality (45.9%) as compared to the right-handed persons (38.3%).

18. The letter “A” is made in one pen operation more in the right-handed persons (51.3%) as compared to the left-handed persons (38.9%).

19. The letter “B” has upper small bow and lower bigger bow in majority of the left-handed persons (62.7%) as compared to the right-handed persons (46.6%).

20. The letter “C” has hooked beginning in right-handed persons (35.6%) as compared to the left-handed persons (23.7%). While the letter “C” has slanting beginning in
left-handed persons (34.4%) as compared to the right-handed persons (19.7%).

21. The letter “D” has round bow in majority of the left-handed persons (51.9%) as compared to the right-handed persons (42.3%).

22. The letter “E” is written in two pen operations in the left-handed persons (61.6%) as compared to the right-handed persons (38.7%). While the letter “E” is written in three pen operations in the right-handed persons (45.6%) as compared to the left-handed persons (23.4%).

23. The letter “F” is written in two pen operation in the left-handed persons (71.8%) as compared to the right-handed persons (58.9%). While the letter “F” is written in three pen operations in the right-handed persons (41.1%) as compared to the left-handed persons (28.2%).

24. The letter “G” has more retraced junction in the right-handed persons (56.4%) as compared to the left-handed persons (42.3%).

25. The letter “H” has higher frequency for curved middle stroke in the right-handed persons (39.4%) as compared to the left-handed persons (27.6%).

26. The letter “I” has curved top in the left-handed persons (40.6%) as compared to the right-handed persons (17.1%).

27. The letter “J” has no eyelet or retrace in the left-handed persons (41.8%) as compared to the right-handed persons (24.3%).
28. The letter “K” has angular junction in right-handed persons (42.7%) as compared to the left-handed persons (34.8%).

29. The letter “L” has curved base in the left-handed persons (46.8%) as compared to the right-handed persons (30.7%).

30. The letter “M” has eyeleted junction in the right-handed persons (41.1%) as compared to the left-handed persons (21.7%).

31. The letter “N” is written in one pen operation in the left-handed persons (57.5%) as compared to the right-handed persons (26.7%). Similarly, the letter “N” is written in three pen operations in the right-handed persons (41.9%) as compared to the left-handed persons (21.8%).

32. The letter “O” is written in clockwise manner in the right-handed persons (79.3%) as compared to the left-handed persons (16.2%). Similarly, the letter “O” is written in anticlockwise manner in the left-handed persons (83.8%) as compared to the right-handed persons (20.7%).

33. The letter “P” has more angular bow in the right-handed persons (31.9%) as compared to the left-handed persons (16.7%).

34. The letter “Q” has eyeleted terminal at the top in the right-handed persons (32.9%) as compared to the left-handed persons (23.6%).
35. The letter “R” has retraced junction in the right-handed persons (45.9%) as compared to the left-handed persons (34.3%).

36. The letter “S” has left side terminal in the left-handed persons (65.1%) as compared to the right-handed persons (44.9%).

37. The letter “T” has curved top in the right-handed persons (39.4%) as compared to the left-handed persons (25.5%).

38. The letter “U” has curved base in the right-handed persons (60.9%) as compared to the left-handed persons (44.5%).

39. The letter “V” has beginning stroke higher than the terminal stroke in left-handed persons (57.6%) as compared to the right-handed persons (46.8%).

40. The letter “W” has retraced junction in the right-handed persons (48.2%) as compared to the left-handed persons (33.1%).

41. In the letter “X” the left down stroke is made first more in the left-handed persons (67.3%) as compared to the right-handed persons (24.2%). While in the letter “X” the right down stroke is made first more in the right-handed persons (75.8%) as compared to the left-handed persons (32.7%).

42. The letter “Y” has more left down terminal in the right-handed persons (43.6%) as compared to the left-handed persons (35.1%).
43. The letter “Z” has more flat beginning in the left-handed persons (32.6%) as compared to the right-handed persons (22.8%).

44. The letter “a” has more terminal upward in the right-handed persons (51.7%) as compared to the left-handed persons (28.9%).

45. The letter “b” has more round bow in the left-handed persons (55.3%) as compared to the right-handed persons (38.3%).

46. The letter “c” has ticked beginning in the left-handed persons (48.2%) as compared to the right-handed persons (41.8%).

47. The letter “d” has more retraced staff in the right-handed persons (43.8%) as compared to the left-handed persons (37.4%).

48. The letter “e” has elongated eyelet more in the right-handed persons (42.7%) as compared to the left-handed persons (32.8%).

49. The letter “f” has upper and lower loops present in the right-handed persons (55.2%) as compared to the left-handed persons (50.2%).

50. The letter “g” has more upper beginning crossing staff in case of left-handed persons (56.5%) as compared to the right-handed persons (51.8%).

51. The letter “h” has more broad top curve in the right-handed persons (53.6%) as compared to the left-handed persons (50.7%).
52. The letter “i” has l-dot on the right of staff is higher in case of right-handed persons (41.9%) as compared to the left-handed persons (37.2%).

53. The letter “j” is forming the base loop higher in the right-handed persons (47.9%) as compared to the left-handed persons (43.8%).

54. The letter “k” is written in one pen operation more in left-handed persons (63.3%) as compared to the right-handed persons (58.6%).

55. The letter “l” has more loopy staff in case of left-handed persons (53.4%) as compared to the right-handed persons (47.3%).

56. The letter “m” has more arcaded curves in right-handed persons (67.8%) as compared to the left-handed persons (59.4%).

57. The letter “n” has more narrow curve in right-handed persons (57.2%) as compared to the left-handed persons (51.3%).

58. The letter “o” has more clockwise beginning in left-handed persons (71.8%) as compared to the right-handed persons (32.8%). While the letter “o” has more anticlockwise beginning in right-handed persons (67.2%) as compared to the left-handed persons (28.2%).

59. The letter “p” is written in two pen operations more in the left-handed persons (31.6%) as compared to the right-handed persons (26.7%).
60. The letter "q" has more narrow curve at the bottom in the right-handed persons (54.2%) as compared to the left-handed persons (47.3%).

61. The letter "r" has higher frequency for retraced bottom in left-handed persons (31.6%) as compared to the right-handed persons (23.8%).

62. The letter "s" has more left side terminal in left-handed persons (52.4%) as compared to the right-handed persons (45.3%).

63. The letter "t" has left to right t-bar has higher value in the right-handed persons (65.4%) as compared to the left-handed persons (27.2%). While the letter "t" has right to left t-bar has higher in the left-handed persons (72.8%) as compared to the right-handed persons (34.6%).

64. The letter "u" has greater value for retraced terminal staff in right-handed persons (58.3%) as compared to the left-handed persons (39.1%).

65. The letter "v" is mostly slanting between 70-90 degrees in the right-handed persons (64.2%) as compared to the left-handed persons (47.7%). While the letter "v" is more slanting between 90-110 degrees in the left-handed persons (52.3%) as compared to the right-handed persons (35.8%).

66. The letter "w" has more narrow base curves in left-handed persons (49.5%) as compared to the right-handed persons (48.1%).
67. The letter “x” has greater tendencies for left down stroke made first in left-handed persons (54.9%) as compared to the right-handed persons (41.3%). Similarly the letter “x” has greater tendencies for right down stroke made first in right-handed persons (58.7%) as compared to the left-handed persons (45.1%).

68. The letter “y” has higher trend for broad bottom loop in right-handed persons (43.3%) as compared with the left-handed persons (34.1%).

69. The letter “z” has more flat top in right-handed persons (63.7%) as compared to the left-handed persons (59.2%).

70. The digit “0” has higher frequency of clockwise beginning in left-handed persons (63.6%) as compared to the right-handed persons (46.7%). Similarly the digit “0” has higher frequency of anticlockwise beginning in right-handed persons (53.3%) as compared to the left-handed persons (36.4%).

71. The digit “1” has more right down slant in right-handed persons (52.1%) as compared to the left-handed persons (43.8%).

72. The digit “2” has more tendencies of forming an eyelet at the top and bottom in left-handed persons (52.4%) as compared to the right-handed persons (43.7%).

73. The digit “3” has more frequency of forming curved junction in left-handed persons (34.0%) as compared to the right-handed persons (25.5%).
74. The digit "4" has great value for retraced staff in right-handed persons (63.4%) as compared to the left-handed persons (48.1%).

75. The digit "5" is written in one pen operation in left-handed persons (61.4%) as compared to the right-handed persons (53.2%).

76. The digit "6" has more frequency of forming an eyelet at the base in right-handed persons (53.6%) as compared to the left-handed persons (33.2%).

77. The digit "7" has higher value for straight top in left-handed persons (61.8%) as compared to the right-handed persons (38.9%).

78. The digit "8" has greater inclination for clockwise beginning in left-handed persons (68.7%) as compared to the right-handed persons (47.6%). Similarly the digit "8" has greater inclination for anticlockwise beginning in right-handed persons (52.4%) as compared to the left-handed persons (31.3%).

79. The digit "9" has more round top in right-handed persons (73.2%) as compared to the left-handed persons (63.4%).