THEORY PAPER

N.B

- Answers should be brief and to the point
- Answers may be given in Hindi/English
- Each question carries 10 marks

1. Narrate in brief the origin of Finger Print Science for Personal Identification (10 marks)

2. (a) How will you record Finger Print in Rigor Mortis Stage. (5 marks)
   (b) Which is the best preservative solution and how will you record Finger Prints of decomposed dead body. (5 marks)

3. Answer any tow (each question carry 5 marks)
   a) Describe Burglars visiting card.
   b) Any two laws relating to identification of prisoners act.
   c) Basic principles of Finger Print Science. (write in short)

4. Write in brief the contribution of any four the following in Finger Print Science. (each question carry 2-1/2 marks)
   1. Aziz-ul-Haque
   2. Sir Francis Galton
   3. Henry Faulds
   4. William Horschell
   5. Sir E.R. Henry
   6. Sir Edmond Locord

5. Write the Primary Classification formula for the following Finger Print slip for record and search purposes (10 marks)

<table>
<thead>
<tr>
<th>Webbed</th>
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<tbody>
<tr>
<td>UL</td>
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<tr>
<td>TL</td>
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<tr>
<td>UL</td>
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<tr>
<td>Missing</td>
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<td>LP Loop</td>
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<td>TA</td>
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<td>W</td>
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<tr>
<td>W</td>
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</tbody>
</table>
6. Fill in the blanks (any ten)(each question carry one mark)
   a) The decision of giving opinion on eight identical point was taken at
       …………………… during the first biennial Forensic Science Conference in
       the year …………
   b) Ninhydrin solution reacts with the …………
   c) The first Finger Print Bureau in the world was established in the year
       ……………… at……………
   d) Finger Prints along with Palm Prints are known as
       ……………………………
   e) In human beings papillary ridges are found only on ………………….. and
       …………. surfaces
   f) Finger Prints of twins are ……………
   g) The first horizontal ridge upon which the vertical trend is found in a tented
       Arch Is called ………………Ridge.
   h) ……………… ink is best suitable for taking finger prints.
   i) The peculiarities are known as "…………………….."
   j) If all the right hand finger bears whorl patterns and all the left hand bear
       loop patterns, the primary classification is ………..
   k) Identification of criminals by Anthropometry started in India in …………. and
       Anthropometry and Finger Print combined in …………………

7. Write True and False
   a) The First All India Forensic Science Conference held in Srinagar in October
       1973, recommended in exceptional cases, even when prints contain less
       than eight points an opinion may be given.
   b) Rajan Kanagali Charan, native of Bengal was "the first criminal in the World
       arrested on 09.09.1897 on the basis of a chance print and punished from
       the court of law on 25.05.1898 in theft charge and sentenced to two years
       imprisonment.
   c) Sir William Hershell is generally recognized as being the first person to use
       finger print as a means of identification.
   d) An impression taken on an already existing impression is called
       "superimposed or overlapping" impression.
   e) An impression taken with a stamp pad may reproduce the weave of the pad
       covering in the inked impression.
   f) A plastic impression is a perfect negative reproduction of ridge structure
       may be impressed on the substance.
   g) Core and Delta is called Arbitrary Points/Cardinal Points.
   h) An impression taken in the wrong finger space could therefore make correct
       classification impossible in some instance.
   i) The soles of the feet are covered with papillary ridges and pores the same
       as palms and fingers.
   j) Photograph is an excellent reproduction of the original inked impression.
8 Match the following (each question carry one mark)

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Section 45 of Evidence Act I of 1872</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>A faint blood print at *** whether it is human blood test reveals</td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td>The first truly scientific method of criminal identification</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>Decomposed dead body</td>
<td>D</td>
</tr>
<tr>
<td>5</td>
<td>Law of probability</td>
<td>E</td>
</tr>
<tr>
<td>6</td>
<td>Individuality</td>
<td>F</td>
</tr>
<tr>
<td>7</td>
<td>The compression method required for submitting FP images</td>
<td>G</td>
</tr>
<tr>
<td>8</td>
<td>An automated minutiae based identification system</td>
<td>H</td>
</tr>
<tr>
<td>9</td>
<td>Data format for the standard for the interchange of finger print information</td>
<td>I</td>
</tr>
<tr>
<td>10</td>
<td>Section 73 of the Evidence Act 1872</td>
<td>J</td>
</tr>
</tbody>
</table>

9 Short Notes: Describe the utility of any two (each question carry 5 marks)
   a) AFIS system in finger print bureau
   b) Digital photography
   c) Finger print Live Scanner

10. Objective Type (each question carry one mark)
   i) A finger print classification without whorls would be
      a) 00/00
      b) 01/01
      c) 32/32
      d) 64/64
   ii) Type lines may be defined as the two innermost ridges which start parallel, diverge and surround or tend to surround
      a) The core
b) The deltas
   c) The pattern area
   d) None of the above

iii) Immature ridge formation that develop in the same manner as normal ridges
   a) Dots
   b) Creases
   c) Incipient ridges
   d) Pores

iv) The study of the effect of disease and genetic aberrations on the friction ridges is referred to as:
   a) Dermatoglyphics
   b) Dermatophytosis
   c) Dermagenetics
   d) Dermagenitomy

v) Intrinsic ridge shapes and relative pore locations are designated as
   a) 1st level ridge detail
   b) 2nd level ridge detail
   c) 3rd level ridge detail
   d) None of the above

vi) The opinion of identification____________________
   a) Objective
   b) Subjective
   c) Impersonal
   d) Impartial

vii) When two bifurcations for on the same ridge facing each other and their branches join the formation is called
   a) A dot
   b) An enclosure
   c) An spur
   d) A crossover

viii) In testifying to fingerprint identifications, the expert often prepares charts to visually and the court and jury in understanding the nature of his/her testimony. The preparation of the chart
   a) Is best carried out by a "chart specialist"
   b) Is often performed by the district attorney handling the case
   c) Is ultimately the sole responsibility of the expert using it
   d) Is often a collaborative effort by the examiner and district attorney
ix) A chart will present a clearer, neater, and more pleasing appearance if it is numbered
a) Clockwise and the numbers are evenly spaced
b) Counter-clockwise and the numbers are evenly spaced
c) Clockwise and a line is not drawn from the number to the ridge characteristic
d) Counter-clockwise and a line is drawn from the number to the ridge characteristic.

x) Iodine developed latent prints can be accelerated by exposure to
a) Laser light
b) Sunlight
c) Black light
d) humidity