

Roll No. ....

Total Pages : 3

**CMDQ/M-24** **5612**  
**FORENSIC PHYSICS**

Paper–M–FSC–401

Time Allowed : 3 Hours]

[Maximum Marks : 80

**Note** : Attempt **five** questions in all, selecting **one** question from each Unit. Question No. **1** is compulsory. All questions carry equal marks.

**Compulsory Question**

1. Give an account on the following : 8×2=16
  - (a) Backe line methods for determination of R.I.
  - (b) Describe Hackle marks and Rib marks.
  - (c) Distinguishes impact cracks from Heat cracks in a Glass plane.
  - (d) Explain the Voice simulation and its misuse.
  - (e) Enlist the layers of Car paint along with their names.
  - (f) What are Micromorphology and Microfossil analysis in Soil?
  - (g) What do the curved marks represent in a Road accident case?
  - (h) What is automated Voice identification?

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**UNIT–I**

2. Write a detailed account of the Forensic examination of the Vehicle in case of a road accident and write the analysis and evaluation of skid marks. 16
3. Give a through explanation of the following :
  - (a) Types and composition of the Glass. 8
  - (b) Methods for determining the Chemical properties of Glass particles. 8

**UNIT–II**

4. Give a detailed explanation of Chemistry of Paints. Explain the standard procedure for the Microscopic and Chemical properties of Paint chips. 16
5. Write a detailed explanation of the following :
  - (a) Confirmatory tests for the identification of Synthetic fibers. 10
  - (b) Forensic examination of Counterfeit coins. 6

**UNIT–III**

6. Give a detailed account on the following :
  - (a) Tests for detection of Adulterated cement. 10
  - (b) Two techniques for identification of Soil sample. 6

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7. Write a detailed account of types of Tool marks, principles and techniques for comparing Tool marks. 16

#### **UNIT-IV**

8. Give a detailed account of the significance and theories of voice identification and give a detailed account of the methods of voice comparison. 16
9. Explain Human voice production theory. Write the techniques for tape authentication and their significance in Criminal investigation. 16