

B.Sc. Semester - 5 (Remedial) (CBCS) Examination**February/March. -2020****FORENSIC PHYSICS (CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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- Que-1 (A) Answer in short: (04)**
1. What is the process of soil formation called?
 2. Define rib marks and hackle marks.
 3. State the 4R rule.
 4. Which horizon of soil consists of large amount of organic matter?
- Que-1 (B) Answer any one in brief: (03)**
1. Write a brief note on bullet-hole fractures.
 2. Explain the process of determining particle size distribution of soil particles.
- Que-1 (C) Write a note on any one: (07)**
1. Explain the density gradient method for analysis of glass.
 2. Write a detailed note on horizons of soil.
- Que-2 (A) Answer in short: (04)**
1. Define skid marks.
 2. Which metals are used for Wood's metal?
 3. What is gait pattern?
 4. Define foot angle and mention the normal range of foot angle.
- Que-2 (B) Answer any one in brief: (03)**
1. Write a brief note on types of tool marks.
 2. Explain the process of casting footprints Plaster of Paris.
- Que-2 (C) Write a note on any one: (07)**
1. Explain the collection of footprints in detail.
 2. Write a detailed note on analysis of tool marks.
- Que-3 (A) Answer in short: (04)**
1. Define numismatic.
 2. Of what materials are seals made up of?
 3. Mention types of natural fibers with examples.
 4. Give two examples of artificial fibers.
- Que-3 (B) Answer any one in brief: (03)**
1. Explain the process of physical matching in brief.
 2. Draw the flow chart of types of fibers.
- Que-3 (C) Write a note on any one: (07)**
1. Write a note on characteristics of counterfeit coins.
 2. Explain the analysis of seal impressions.
- Que-4 (A) Answer in short: (04)**
1. Mention the phonatory organs of vocal anatomy.
 2. Mention types of articulators.
 3. What is meant by open test?
 4. Which factors affect intra speaker variation?

- Que-4 (B) Answer any one in brief: (03)**
1. Write a brief note on segregation of voice samples.
 2. Draw the schematic diagram of speaker verification system.
- Que-4 (C) Write a note on any one: (07)**
1. Explain the voice production system in detail.
 2. Write a detailed note on spectrographic method of voice analysis.
- Que-5 (A) Answer in short: (04)**
1. Mention the components of paint.
 2. What does CMOS stand for?
 3. Mention the cardinal rules for photography.
 4. What are the functions of solvent used in paint?
- Que-5 (B) Answer in brief: (03)**
1. Discuss types of lenses in detail.
 2. Explain the progression of photography.
- Que-5 (C) Write a note on any one: (07)**
1. Explain the process of paint analysis in detail.
 2. Discuss crime scene photography in detail.
