

B.Sc.(FS) Semester - 5 (Remedial) (CBCS) Examination**Feb/Mar. -2021 (OLD COURSE)****FORENSIC PHYSICS (CORE)****Time: 1:30 Hours****Marks: 42****Instructions:**

1. Figures to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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Q.1(A) Objective type questions (Any Four) (04)

1. Define physical properties.
2. Give the characteristics of Heat fracture.
3. What is Humus?
4. Define Soil.

Q.1(B) Answer in detail (Any 1 out of 2) (03)

1. Define glass and write a note on physical matching of glass.
2. Which physical methods or techniques used for analysis of soil? Describe the ignition test for soil.

Q.1(C) Write a note on (Any 1 out of 2) (07)

1. Describe glass fractures with labeled figure.
2. Describe formation of soil. Explain the density gradient tube method for soil.

Q.2(A) Objective type questions (Any Four) (04)

1. Which is a silicone-based product that can be used for lifting the foot impressions?
2. Give the chemical composition of POP.
3. In which instrument, a delicate probe moves over the surface to scanned a change in the depth and alivaiton of tool marks?
4. What is wear bar?
5. Articles which are joint together by glue, nails or rivets exchanges_____marks.

Q.2(B) Answer in detail (Any 1 out of 2) (03)

1. List out the qualities of casting materials.
2. Give the idea about features of characteristics of tool marks

Q.2(C) Write a note on (Any 1 out of 2) (07)

1. What is the difference between class and individual characteristics of tool marks explain with example. Methods used for the Examination of tool marks.
2. What is biometrics? Which information obtained from the footmarks? Write a note on gait pattern.

Q.3(A) Objective type questions (Any Four) (04)

1. Which solution is used as etching reagent for brass and copper?
2. Use of tensilometer in forensic physics Lab.
3. Instrumental methods used for the forensic analysis of fibers.
4. Fry`s reagent is used as etchant for which surface?

- Q.3(B) Answer in detail (Any 1 out of 2) (03)
1. Forensic examination of coin.
 2. Describe physical matching of broken object.
- Q.3(C) Write a note on (Any 1 out of 2) (07)
1. Describe etching procedure and list out the different etching reagent for different surface.
 2. Types of fiber, Classification of fiber and its forensic examination.
- Q.4(A) Objective type questions (Any Four). (04)
1. Full form of SNR.
 2. Full form of EER.
 3. Methods for the alteration of video tape.
 4. Which information obtained from the speech sample.
 5. Which vocal cord starts from_____and end to_____.
- Q.4(B) Answer in detail (Any 1 out of 2) (03)
1. Write a note on uniqueness from in voice.
 2. How one can do editing in the video tape?
- Q.4(C) Write a note on (Any 1 out of 2) (07)
1. What is speech enhancement and purpose of it and methods used for speech enhancement.
 2. Define voice and speech And write a note on “Forensic speaker recognition”
- Q.5(A) Objective type questions (Any Four) (04)
1. Different light source used in forensic photography.
 2. Full form of CCD.
 3. Components of paint.
 4. Types of lenses.
 5. Use of crime scene photography.
- Q.5(B) Answer in detail on (Any 1 out of 2) (03)
1. Define: (i) Exposure, (ii) Aperture, (iii) Depth of field.
 2. Explain crime scene photography.
- Q.5(C) Write a note on (Any 1 out of 2) (07)
1. Write a note on main components of paint and examination of paint evidence.
 2. What is photomicrography and photogrammetry? And Write a note on types of camera.
