647510 **BFS5PhyC503x** **Seat No :_____**

B.Sc.(FS) Semester - 5 (Remedial) (*CBCS*) Examination
March/April-2024 (NEW COURSE)
Forensic Physics(Core)

Time: 2:30 Hours **Marks: 70**

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que.1(A) Objective type questions. (Any Four) (04)

1. The process by which soil is formed is known as Pedogenesis. True or false?
2. Which physical properties examine for the analysis of glass?
3. Give the full form of DTA.
4. When a temperature of liquid is raised its refractive index increases or decreases.

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

1. Describe glass formation and write a note on evidential value of glass.
2. Mention the physical methods, chemical test and techniques which are useful for the analysis of soil.

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

1. Describe glass fractures with labeled figure.
2. Short note on soil formation. Explain the density gradient tube method for forensic soil analysis.

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

1. Which information obtained from the gait pattern?
2. Wheel with lower profile aspect ratio is flatter and wider. Is it true?
3. Give the chemical composition of POP.
4. Types of toolmarks.

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

1. Define Biometrics and write a note on gait pattern analysis.
2. Evidential value of Tire and skid marks and how one can determine the turning diameter of a vehicle and speed of vehicle from skid marks?

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

1. Define sunkan foot prints, describe the POP casting procedure for it and List out the qualities of casting materials.
2. Describe principle of tool mark examination and types of tool marks.

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

1. Use of tensilometer in forensic physics Lab.
2. Instrument used in forensic physics division.
3. Types of fiber on the basis of their origin.
4. Common Use of etching procedure.

Que.3(B) Answer in detail. (Any 1 out of 2) (03)

1. Write a note on "Forensic examination of seals".
2. Describe etching procedure and list out the different etching reagent for different surface.

Que.3(C) Write a note on. (Any 1 out of 2) (07)

1. Classification of fiber and primary forensic examination of it.
2. Explain the term “Physical Matching” and describe with example how it is useful during analysis?

Que.4(A) Objective type questions. (Any Four) (04)

1. Human vocal cord starts from____ and end to ____.
2. Which information obtained from the speech sample.
3. What is the ratio of comparison in forensic speaker identification?
4. Methods for the alteration of video tape.

Que.4(B) Answer in detail. (Any 1 out of 2) (03)

1. Define voice and speech And Write a note on uniqueness in voice.
2. Write a note on "Forensic video Analysis".

Que.4(C) Write a note on. (Any 1 out of 2) (07)

1. Write a note on "Forensic speaker recognition".
2. Write a note on "Voice Production Theory".

Que.5(A) Objective type questions. (Any Four) (04)

1. Which light source is used for the photography of charred document?
2. SLR stands for _____ in photography.
3. Use of crime scene photography.
4. Components of paint

Que.5(B) Answer in detail. (Any 1 out of 2) (03)

1. Write a note on types of camera and lenses
2. Define: (i) Exposure, (ii) Aperture, (iii) Depth of field

Que.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. Write a note on crime scene photography.

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