

B.Sc.(FS) Semester - 5 (CBCS) Examination
Oct/Nov - 2023 (NEW COURSE)
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 the following question. (04)
1. Define: Primary fracture.
 2. Write the “4R Rule”.
 3. Write the formula for the percentage of weight loss of soil on ignition.
 4. Write the elements used in production of borosilicate glass.
- Que.1(B) Answer the following question. (any one) (03)
1. Explain forensic examination of glass.
 2. Write a note on sample collection of soil evidence.
- Que.1(C) Answer the following question. (any one) (07)
1. Explain the production of glass fracture & types of glass fractures.
 2. Write a brief note on analysis of soil.
- Que.2(A) Answer the following question. (04)
1. What is Foot line ?
 2. Write the principle for tool mark.
 3. What does the number 4901 indicates on side wall of tyre.
 4. Define: wheel base.
- Que.2(B) Answer the following question. (any one) (03)
1. Explain “casting” a collection method for foot print.
 2. What is skid mark ? Write the importance of skid marks.
- Que.2(C) Answer the following question. (any one) (07)
1. Write a note on forensic examination of footwear impression.
 2. (i.) Explain the types of tool marks.
(ii.) Describe the analysis of tool marks ?
- Que.3(A) Answer the following question. (04)
1. Define: Numismatic.
 2. Define: Seal.
 3. Define coin according to IPC.
 4. What is center punching ?
- Que.3(B) Answer the following question. (any one) (03)
1. Explain briefly (i.) Mechanical fit & (ii.) Side by side matching.
 2. Write the scope & principle for restoration of marks.
- Que.3(C) Answer the following question. (any one) (07)
1. Write a note on a forensic examination of wire & cable.
 2. Explain the methods of obliteration & Write the procedure for chemical etching method for restoration.
- Que.4(A) Answer the following question. (04)
1. Define: Fundamental frequency.
 2. Name the methods used for speech enhancement.
 3. Give the range of voice for man, woman & child.
 4. What is assemble editing?

- Que.4(B) Answer the following question. (any one) (03)
1. Explain briefly speech enhancement.
 2. Explain briefly the uniqueness in person's voice.
- Que.4(C) Answer the following question. (any one) (07)
1. Define:
 - (a.) Open test; (ii.) Close test; (iii.) Discriminating test
 - (b.) Difference between Text Dependent vs Text Independent
 - (c.) Explain Intra-speaker & Inter-speaker
 2. Write a note on speech production in human being.
- Que.5(A) Answer the following question. (04)
1. What is image sensor ?
 2. What is emulsion ?
 3. Write the importance of Photography.
 4. Name the sub-type of synthetic adhesive.
- Que.5(B) Answer the following question. (any one) (03)
1. Define: Paint. Describe the main components of paint.
 2. Explain: (i.) Depth of field; (ii.) Aperture; (iii.) Exposure.
- Que.5(C) Answer the following question. (any one) (07)
1. Write a note on a digital photography.
 2. Write a note on a crime scene photography.
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