647510 **MSC1FScC103x** **Seat No :_____**

M.Sc.(FS) Semester - 1 (*CBCS*) Examination
Jan/Feb.-2022
Forensic Physics and Ballistics (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.

Q1 (A) Answer all questions in short: **(04)**

1. Explain the formation of glass
2. State the significance of soil as evidence.

Q1 (B) Answer any two questions out of three: **(10)**

1. Describe in detail the types of paint.
2. Explain the different types of tool marks
3. Explain in detail forensic examination of soil: (i) Ignition test (ii) PH (iii) Particle size distribution.

Q2 (A) Answer all questions in short: **(04)**

1. Why is shellac sprayed on surface before pouring POP?
2. Define: (i) Step length (ii) step angle with diagram.

Q2 (B) Answer any two questions out of three: **(10)**

1. Elaborate on different lifting techniques used in foot wear impression analysis
2. A dead body was found on a marshy land and foot prints were also seen in the vicinity nearby to the dead body. Later on, the analysis of the foot prints by the police and forensic experts was done to reach the suspect and then finally to the criminal. Mention the detailed method which has been used by forensic experts to reach the criminal?
3. What is skid marks? How it would helpful to investigate hit and run types of Cases?

Q3 (A) Answer in short: **(04)**

1. Define: (i) Muzzle Blast (ii) Paradox gun
2. What is country made firearms? Give any two examples.

Q3 (B) Answer any two questions out of three: **(10)**

1. Briefly explain the classification of cartridges in detail.
2. Write a note on: Projectiles and its different types.
3. What are the different types of propellants? Which propellant is used in long range firearms and why?

Q4 (A) Answer in short: **(04)**

1. State the difference between internal and terminal ballistics.
2. What is the difference between permanent cavity and temporary cavity?

Q4 (B) Answer any two questions out of three: **(10)**

1. How you can determine the range of firing with the help of entry wound produce by rifle firearm?
2. State the difference between entry and exit wound of rile firearm.
3. How you can determine the range of firing with the help of entry wound produce by smoothbore firearm?

Q5 (A) Answer in short: **(04)**

1. What is IBIS? How it is useful in criminal investigation?
2. Explain the importance of BDAS in Forensic ballistics division.

Q5 (B) Answer any two questions out of three: **(10)**

1. How a forensic expert can link a bullet to a firearm? Explain the comparison process.
2. State the GSR collection techniques from suspect's hand and also explain any two test for gsr analysis.
3. Explain the class and individual characteristics of fired cartridge case.

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