

B.Sc.(FS) Semester - 6 (CBCS) Examination**March/April -2019****BALLISTIC AND EXPLOSIVE(CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

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

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- Q – 1 (A) Objective type questions (Any Four) 4 Marks
1. Define forensic ballistic.
 2. Which are the components of forensic ballistic?
 3. Define Trigger pull.
 4. Drawbacks of matchlock gun.
 5. Why chocking is introduced in barrel?
- Q – 1 (B) Answer in detail (Any 1 out of 2) 3 Marks
1. Explain: flint lock gun and muzzle loader
 2. Explain barrel of shotgun.
- Q – 1 (C) Write a note on (Any 1 out of 2) 7 Marks
1. Explain any five parts of shot gun fire arm.
 2. Define firearm and give the Classification of modern fire arms and shot gun family
- Q – 2 (A) Objective type questions (Any Four) 4 Marks
1. Basic ingredients of primer composition.
 2. Type of smooth bore projectile.
 3. The hot gases are for _____ second in contact with barrel.
 4. Which bullet is used to study the trajectories?
 5. Define barrel time.
- Q – 2(B) Answer in detail (Any 1 out of 2) 3 Marks
1. Explain heat problems observed during the study of internal ballistic.
 2. Composition of single base powder, double base powder and triple base powder.
- Q – 2 (C) Write a note on (Any 1 out of 2) 7 Marks
1. Classification of bullets and explain the types of bullets on the basis of heel shape.
 2. Explain recoil as a parameter of study of internal ballistic.
- Q – 3 (A) Objective type questions (Any Four) 4 Marks
1. What is ballistic co-efficient?
 2. Retardation due to air, depends upon what?
 3. Define base drag.
 4. GSR distribution depends on_____.
 5. Tattooing is due to _____.
- Q – 3 (B) Answer in detail (Any 1 out of 2) 3 Marks
1. Give the difference between entry and exit wound of fire arm injury.
 2. Explain range and drop as a parameter of study of external ballistic.
- Q – 3 (C) Write a note on (Any 1 out of 2) 7 Marks
1. Determination of range of fire on the basis of characteristics of entry wound of shotgun firearm injury.
 2. Explain vacuum trajectory and list out those parameters which are used to determine the trajectory.

- Q – 4 (A) Objective type questions (Any Four) 4 Marks
1. Locard's principle.
 2. Brass trax is used in IBIS to capture images of _____.
 3. Full name of BDAS.
 4. Marks on Fired cartridge.
 5. Where the GSR found commonly?
- Q – 4 (B) Answer in detail (Any 1 out of 2) 3 Marks
1. Wet methods for the collection of GSR.
 2. Principle involved in the identification of firearms.
- Q – 4(C) Write a note on (Any 1 out of 2) 7 Marks
1. Write a note on BIDAS.
 2. Marks observed on fired cartridge case.
- Q – 5 (A) Objective type questions (Any Four) 4 Marks
1. GSR on colored cloth can be detected by _____Photography.
 2. Define explosive.
 3. Give the example of explosive.
 4. Chemical name of HMX.
 5. Full name of IED's.
- Q – 5 (B) Answer in detail (Any 1 out of 2) 3 Marks
1. Give the classification of explosive and give the full form, chemical name and Structure of TNT and RDX.
 2. Describe the mechanism of formation of GSR.
- Q – 5 (C) Write a note on (Any 1 out of 2) 7 Marks
1. Chemical test for the analysis of GSR.
 2. Chemical composition of explosive composition A, B, C and semtex