

[38]

SEAT No. \_\_\_\_\_

No of printed pages: 02

SARDAR PATEL UNIVERSITY  
M.Sc. (FORENSIC SCIENCE) Semester II-Examination  
Saturday, 23<sup>rd</sup> March-2019  
PS02CFSC23-Forensic Ballistics

TIME- 10:00am -01:00pm

TOTAL MARKS-70

**Instructions:**

1. Figures to the right indicate maximum marks of the questions.

**Q-1 Multiple choice questions:**

[08]

1. Which substance is not present in composition of Modified cordite?  
A) Nitroglycerine  
B) Nitrocellulose  
C) Mineral Jelly  
D) Black Powder
2. The internal diameter of smooth bore barrel firearm is called \_\_\_\_\_.  
A) Bore  
B) Caliber  
C) Both a & b  
D) None of above
3. The time for which the hot gases are in contact with the barrel is about \_\_\_\_\_ sec.  
A) 0.1  
B) 0.01  
C) 0.001  
D) 0.0001
4. Distance through which the projectile falls from fire line at certain range is called \_\_\_\_\_.  
A) Range  
B) Vertex  
C) Drop  
D) Drift
5. The charring also called \_\_\_\_\_.  
A) Scorching  
B) Burning  
C) Singing  
D) All of above
6. What is the threshold velocity for bone penetration?  
A) 60 m/s  
B) 80 m/s  
C) 40-50 m/s  
D) 100-120 m/s
7. Which instrumental technique is not used for GSR?  
A) GC  
B) AAS  
C) NAA  
D) TEM
8. Comparison microscopes image is examined through \_\_\_\_\_.  
A) Micro fluorescent attachment  
B) Electron micro attachment  
C) Telescopic micro attachment  
D) Phase micro attachment

(1)

(P.T.O)

- Q-2 Answer in short. (Any Seven)** [14]
1. Enlist various types of rifling techniques.
  2. Explain wheel lock action in rifled firearm.
  3. Write a short note on progressive powder in ammunition.
  4. What is ricochet?
  5. Enlist various factors affecting on Internal Ballistics.
  6. Write about the intermediate target in Wound Ballistics.
  7. Give the definition of (i) Blackening (ii) Tattooing
  8. What is the working principle of comparison microscope?
  9. Define GSR and its mechanism.
- Q-3**
- A] Write a note on rifled cartridge. [06]  
B] Explain all types of bullets used in firearms. [06]
- OR**
- B] Classify the various types of cartridge cases. [06]
- Q-4**
- A] Explain recoil in terms of Internal Ballistics. [06]  
B] Write a short note on: External Ballistics. [06]
- OR**
- B] Describe the factors affecting on the internal ballistic. [06]
- Q-5**
- A] Give the elements of Wound Ballistics. [06]  
B] Discuss the difference between entry and exit wound. [06]
- OR**
- B] How to do postmortem examination in firearm cases? [06]
- Q-6**
- A] Describe the examination of Gun Shot Residue (GSR). [06]  
B] Explain BDAS in Forensic Ballistics. [06]
- OR**
- B] Give the various types of marks present on fired cartridge case in detail. [06]

— X —

(2)