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SARDAR PATEL UNIVERSITY**M. Sc. (Forensic Science) – Second Semester Examination (CBCS)****Friday, 13th April, 2018****10:00 a.m. to 1:00 p.m.****PS02CFSC23: Forensic Ballistics****Total Marks: 70**

Note: (1) Figures to the right indicate marks.

(2) Draw a neat and labeled diagram, wherever necessary.

Q. 1 Choose the most appropriate answer from the four alternatives given: [08]

- i. _____ is a force of primary importance acting on a projectile.
a) Gravity b) Barrel fouling c) Base drag d) Mechanical force
- ii. _____ is credited with the conception of the term "Forensic Ballistics".
a) Henry Faulds b) Major Goddard c) Philip Gravelle d) John Fisher
- iii. Early form of flintlock is called _____.
a) Adnuance b) Nuance c) Snaphaunce d) Conuance
- iv. The time when the projectile starts to move until it exits the barrel is called _____.
a) Ignition time b) Barrel time c) Firing time d) Lock time
- v. The common examples of gun propellants are _____.
a) Nitrocellulose b) Mixture of nitrocellulose and nitroglycerine
c) Nitroguanidine d) All of these
- vi. Range of close shot is _____ centimeter.
a) 25 - 45 b) 10 - 30 c) 15 - 35 d) 20 - 40
- vii. _____ acid is used in the Walker's test for moistening of the filter paper.
a) Acetic b) Citric c) Hydrochloric d) Nitric
- viii. "IBIS" stands for _____.
a) International Ballistics Identification System
b) Integrated Ballistics Identification System
c) Integrated Ballistics Identification Symbol
d) Issue Based Identification System

P.T.O.

Q.2 Answer any SEVEN from the following:

- i. Explain muzzle loader firearm.
- ii. Define the term ammunition.
- iii. Why choking is done in shotgun barrel?
- iv. What is ballistic coefficient?
- v. Define yaw in terms of forensic ballistics.
- vi. Write formulas for Range and Drop.
- vii. What is ballistics gel? Write its importance?
- viii. Define explosive wound and wads in terms of ballistics.
- ix. Write significance of stereomicroscope in forensic ballistics.

Q.3(a) What is pin fire system and how it works? [6]

(b) Describe various types of bullets. [6]

OR

(b) Explain barrel of rifled firearm with rifling techniques. [6]

Q.4(a) Describe various components of external ballistics. [6]

(b) Describe the factors affecting the internal ballistics. [6]

OR

(b) Write a detailed note on recoil of firearm. [6]

Q.5(a) How the post mortem examination of human is done in case of shooting? [6]

(b) Give an overview of terminal ballistics. [6]

OR

(b) Differentiate between entrance wound and exit wound. [6]

Q.6(a) Discuss chemical tests for the evaluation of Gunshot residues. [6]

(b) Describe the methods for the collection of GSR. [6]

OR

(b) Explain BDAS with diagram. [6]
