

B.Sc.(FS) Semester - 6 (CBCS) Examination
April/May-2022 (OLD COURSE)
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 Give the answer of following question. (14)**
- (A) Answer the following question very shortly (04)**
- (1) Explain Forensic Ballistics ?
 - (2) Define Extractor and Ejector mark.?
 - (3) Name the method that are used for grooving the rifled barrel.?
 - (4) What is the bore diameter for 16 bore shotgun in cm.?
- (B) Answer the following question in brief (Any one) (03)**
- (1) Explain the rifled firearms its caliber, rifling and gyratory motion.?
 - (2) Write a note on different types of action mechanism.?
- (C) Answer the following question in detail (Any one) (07)**
- (1) Classified the modern firearms and give the characteristics of smooth bore firearms – 10, 12, 16 bore and choking .?
 - (2) Write a note on history and development of old age firearm.?
- Q-2 Give the answer of following question. (14)**
- (A) Answer the following question very shortly (04)**
- (1) Give the formula for Density of loading.?
 - (2) Give the types of cartridge cases on the basis of shape of base.?
 - (3) Define ammunition.?
 - (4) Composition of gun powder & single base smokeless powder.?
- (B) Answer the following question in brief (Any one) (03)**
- (1) What is internal Ballistic? Define the barrel time & Ignition time.?
 - (2) Draw a labeled diagram of shotgun & rifled cartridge.?
- (C) Answer the following question in detail (Any one) (07)**
- (1) What is recoil, give its principle and how recoil is calculated.?
 - (2) Explain in detail about the types of propellant charge used in firearm.?
- Q-3 Give the answer of following question. (14)**
- (A) Answer the following question very shortly (04)**
- (1) Give the three main factors that affect the performance of bullet after leaving the barrel.
 - (2) Explain terminal ballistics.?
 - (3) What is Striking velocity and muzzle velocity.?
 - (4) What is ballistic co-efficient. Give its formula
- (B) Answer the following question in brief (Any one) (03)**
- (1) What type of characteristics are seen in case of entry wound.?
 - (2) Explain Base drag, Yaw effect & Ricochet with diagram.
- (C) Answer the following question in detail. (Any one) (07)**
- (1) Determine the range of fire in case of smooth bore firearm injury.?
 - (2) Give the formula for Maximum Range & Range at vertex of projectile.?

- Q-4 Give the answer of following question. (14)**
- (A)** Answer the following question very shortly (04)
- (1) Draws a diagram of fired cartridge case & mention the marks.
 - (2) What is the tip diameter of Stylus in Striagraphy.?
 - (3) Principle of Locard's state –
 - (4) What is recovery box in case of BDAS.?
- (B)** Answer the following question in brief (Any one) (03)
- (1) Write about firing pin mark and breech face mark .
 - (2) Explain the class & individual characteristics in Ballistics.
- (C)** Answer the following question in detail. (Any one) (07)
- (1) Write a note on Integrated Ballistic Identification System.
 - (2) Detail note on instrument used for the identification of firearm, projectile and cartridge
- Q-5 Give the answer of following question. (14)**
- (A)** Answer the following question very shortly (04)
- (1) ANFO & PETN stands for -
 - (2) Which type of photography is done when GSR found on colored cloths.
 - (3) SEMTEX is a mixture of which explosive material.?
 - (4) Give the examples of primary high explosive & secondary high explosive.
- (B)** Answer the following question in brief (Any one) (03)
- (1) Give the organic and inorganic material found in GSR with their sources.?
 - (2) How to examine the scene of explosion.?
- (C)** Answer the following question in detail. (Any one) (07)
- (1) Explain dry and wet method for the collection of GSR
 - (2) Write a note on chemical method used to detect the GSR.
