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PG-003-001658 Seat No. _____

B. Sc. (Forensic Science) (Sem. VI) (CBCS) Examination

July - 2018

FS - 602 : Ballistic & Explosive

Faculty Code : 003

Subject Code : 001658

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instructions : (1) This question paper contains three questions. All are compulsory.

(2) Draw neat and labelled diagrams wherever necessary.

(3) Figures to the right indicate marks.

1 Give the answers of following questions : **20**

(1) Define forensic ballistic.

(2) Define action block.

(3) Define barrel.

(4) Drawbacks of matchlock gun.

(5) Classify the firearms on the basis of loading characteristics.

(6) Define Trigger pull,

(7) The change in diameter of barrel at muzzle end is called as _____

(8) Define trigger guard.

(9) The reduction of 1 mm diameter of barrel is called as _____

(10) In which type of cartridge, firing pin is striked on the hollow ring?

(11) Which component is used for shock absorber or compress to provide cushioning effect under pressure in shotgun cartridge?

(12) Composition of semi smokeless powder.
(13) Type of smooth bore projectile.
(14) Full form of EDXRF.
(15) Which bullet starts fire on striking the target?
(16) Full name of BDAS.
(17) GSR distribution depends on _____
(18) Give the example of explosive.
(19) Brass trax is used in IBIS to capture images of _____
(20) Full name of LEA which relates to IBIS.

2 Give the answers of following questions as per instructions :

(A) Write any **three** out of six : **6**

(1) Composition of cordite and ballistite
(2) Tracer bullet
(3) Define: Ramroad and sear
(4) Define : bore and caliber
(5) What is choking and types of choking according to degree of choking?
(6) Define : Twist and pitch

(B) Write any **three** out of six : **9**

(1) Explain : flint lock gun and muzzle loader
(2) Classification of modern fire arms
(3) Explain the barrel of rifled fire arm.
(4) Types of cartridge case on the basis of the base configuration of cartridge case.
(5) Chamber and action block of shot gun.
(6) Explain the various techniques to introduce the rifling in the barrel.

(C) Write any **two** out of five : **10**

(1) Write a note on choking.
(2) Explain any five parts of shot gun fire arm.
(3) Write a note on barrel of rifled fire arm and techniques to introduce the rifling.
(4) Classification of bullet
(5) History of fire arm.

3 Give the answers of following questions as per instructions :

(A) Write any **three** out of six : **6**

(1) Parameters to be measured in BIDAS.

(2) Where the GSR is found commonly?

(3) What is barrel time and ignition time?

(4) Explain vibration and jump.

(5) What is ricochet and base drag?

(6) What is sectional density of projectile?

(B) Write any **three** out of six : **9**

(1) Characteristics of entry wound of fire arm injury.

(2) Wet methods for the collection of GSR.

(3) Explain heat problems observed during the study of internal ballistic.

(4) Explain measurement and miscellaneous facts about recoil.

(5) Explain vacuum trajectory and list out those parameters which are used to determine the traj ectory.

(6) Explain the types of bullets on the basis of ojive shape.

(C) Write any **two** out of five : **10**

(1) Determination of range of fire on the basis of characteristics of entry wound of rifled firearm injury.

(2) Marks observed on fired cartridge case.

(3) Write a note on IBIS.

(4) Instrumental methods used for the analysis of GSR.

(5) Give only equation for range, vertex height, Drop, angle of fall and remaining velocity.
