MAN-003-001658 Seat No. _____

B. Sc. (F. S.) (Sem. VI) (CBCS) Examination

March / April - 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 labeled diagrams wherever necessary.

(3) Figure to the right indicate marks.

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

(1) Which are the components of forensic ballistic ?

(2) Define chamber.

(3) Define extractor.

(4) Give the name of parts of rifled firearms.

(5) Define bore.

(6) Classify the firearms on the basis of action characteristics.

(7) Why chocking is introduced in barrel ?

(8) _____ choke contain the diameter of the barrel at muzzle end is narrower as compared to rest of the barrel.

(9) What are the functions of stock in firearms ?

(10) Cushion wad are almost universally made up of _____.

(11) Which chemical was first used as primer?

(12) The primer composition is very sensitive to the _____.

(13) The shape of trajectory of fire arm is _____.

(14) Tattooing is due to _____ particles.

(15) GSR on colored cloth can be detected by _____ Photography.

(16) Full name of GEA which relates to IBIS.

(17) PETN stands for _____.

(18) The hot gases are standing for _____ second in contact with barrel.

(19) Fire arm of same make and model imprint have common _____ characteristics on fired cartridge.

(20) Define base drag.

2 Give the answers of following questions as per instruction :

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

(1) Define caliber with figure.

(2) What is choking ? What is the effect of choking ?

(3) Give the name of techniques to introduce the rifling in the barrel of fire arm.

(4) Explain the effect of rifling.

(5) Describe magazine.

(6) What are class characteristics ? Give example.

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

(1) Method of rifling.

(2) Types of chock.

(3) Explain : match lock gun and wheel lock gun

(4) Give the classification of modern fire arm.

(5) Types of spherical projectile and its manufacturing process.

(6) Classification of bullets

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

(1) History of fire arm.

(2) Define ammunition, projectile and explain manufacturing of projectile of smooth bore fire arm.

(3) Explain chocking.

(4) Draw the figure of rifled and smooth bore cartridge and give the classification of cartridge.

(5) Action mechanism of rifled fire arm.

3 Give the answers of following questions as per instruction :

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

(1) Composition of black powder.

(2) Duplex bullet and paradox bullet

(3) What is lock time and barrel time ?

(4) What is spin and drift ?

(5) Use of IBIS

(6) Price spot test for the detection of GSR.

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

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

(2) Explain measurement and miscellaneous facts about recoil.

(3) Explain barrel fouling and how the magnitude of it can be reduced ?

(4) Harrison and Gilroy's test for the detection of GSR.

(5) Composition of single base powder formation of NG and NC.

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

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

(1) Explain the parameter of external ballistic.

(2) Determination of range of fire on the basis of characteristics of entry wound of ritled firearm injury.

(3) Analysis of GSR.

(4) Marks observed on fired cartridge case.

(5) Write a note on IBIS.
