NAO-003-038605 Seat No. _____

B. Voc. (MLMDT) (Sem. VI) (CBCS) Examination

March / April - 2017

GMLMDT-6.5 : Molecular Tools in Forensic Sciences

Faculty Code : 003
Subject Code : 038605

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

Instructions : (1) All questions are compulsory.
(2) The paper is divided in two sections.
(3) Figures on right indicate marks

SECTION – I

1 Answer the following questions : **20**

(1) Who is recalled as Father of Anthropometry?
(2) What are the types of crimes?
(3) "Principle of Exchange" given by .....
(4) What is CSI?
(5) What types of Evidences can be found at the scene of car accident?
(6) What is a Tracker Bullet?
(7) What is the effect of Barbiturates on CNS?
(8) State mental and physical conditions of a person undergoing narco analysis.
(9) Why lie detection test is known as Poly Graph test?
(10) What is comparison microscope and for what purpose it is used?
(11) What is Fear of Crime? How can you observe that?
(12) What is essential if you want DNA from Hair?
(13) Name types of biological evidences.
(14) Which chemical material is used to develop fingerprints?
(15) What is RFLP?
(16) What is TGGE?
(17) What is the direction of DNA amplification?

(18) What is Ct value?
(19) What is SSCP?
(20) What is annealing temperature in PCR?

SECTION – II

3 (a) Answer in brief : (Any **3**) **3×2=6**

(1) What is Corpus Delicti?
(2) What are the applications of forensic science?
(3) What is forensic anthropology? What areas are covered under this?
(4) Explain Locard's Exchange principle.
(5) What is rifling? Why it is important?
(6) Describe collection technique : Brushing or combing

(b) Answer in brief : (Any **3**) **3×3=9**

(1) What is Lie detection test? What parameters are measured in this?
(2) What is forensic toxicology? What areas are covered under this?
(3) What are the characteristics of a cartridge case?
(4) What is EEG? How it works?
(5) Describe steps of Narco analysis.
(6) How to Collect Fiber evidence?

(c) Answer in brief : (Any **2**) **2×5=10**

(1) Describe in detail: Polygraph test
(2) Describe the standard procedure of crime scene investigation.
(3) Describe brain fingerprinting in detail.
(4) What are the branches of Forensic Science?
(5) Write a short note on Hair examination.

3 (a) Answer in brief : (Any **3**) **3×2=6**

(1) What is the role of adapter in AFLP?
(2) Enlist the methods of DNA typing.
(3) What is contribution of Francis Galton in Forensic Science?
(4) How to preserve and pack biological evidences?
(5) What is SNP?
(6) What are restriction enzymes? Give an example.

(b) Answer in brief : (Any **3**) **3×3=9**

(1) Mention the denaturants used in DGGE.

(2) How is the purity of DNA sample determined?

(3) What are VNTRs?

(4) Describe collection technique : scraping

(5) The DNA isolated from a dried blood stain is of poor quality. Mention the preferred processing steps and justify.

(6) What are the applications of DNA finger printing?

(c) Answer in brief : (Any **2**) **2×5=10**

(1) Write a short note on ARDRA technique.

(2) Explain the process of DGGE.

(3) Give the detail account of criminal profiling.

(4) Mention the advantages of AFLP over RAPD/RFLP.

(5) What are impression evidences? How can you collect them?
