



HCL-003-001546

Seat No. _____

B. Sc. (Forensic Science) (Sem. V) (CBCS)

Examination

October – 2017

**FS - 501 : Forensic Biology,
Serology & Anthropology**

Faculty Code : 003

Subject Code : 001546

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :**
- (1) This question paper contains three questions.
 - (2) All are compulsory.
 - (3) Draw neat and labeled diagrams wherever necessary.
 - (4) Figures to the right indicate marks.

- 1 Give the answer of following questions : **20**
- (1) Give the component of blood.
 - (2) Who showed ESD for the 1st time?
 - (3) What is cerumen?
 - (4) Define Vomit.
 - (5) Give the composition of normal saline.
 - (6) Which group of insects that arrive on dead vertebrate first?
 - (7) What is the forensic significance of hair as evidence?
 - (8) Give the types of diatoms.
 - (9) Give the full name of RFLP.
 - (10) Give the example of isoenzymes?
 - (11) From which Taq polymerase is isolated?

- (12) Full name of DNA.
- (13) Give the example of mechanical injury?
- (14) Give the dental formula of Adult male.
- (15) Which teeth are used for chewing and grinding purpose ?
- (16) Define abrasion.
- (17) Give two example of Asphyxia death.
- (18) How many bones are there in human body?
- (19) What is Harakiri?
- (20) Loss of superficial epithelial layer of skin is known as _____.

2 Give the answers of following questions as per instruction :

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

- (1) What are the forensic aspects of body fluids?
- (2) Function of urine.
- (3) What are the functions of Saliva?
- (4) Give the characteristics causing change in color of urine.
- (5) Detail the Kastle Mayer test for blood.
- (6) Give the forensic significance of diatoms (3 points with description)

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

- (1) Define saliva, give its characteristics and name the glands secreting saliva.
- (2) Draw and label the structure of sperm cell.
- (3) Give different color urine significance.

- (4) Test for the examination of vomit.
- (5) Forensic significance of entomology.
- (6) Explain Cross section of hair. Draw a Morphological diagram of hair.

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

- (1) Medico legal importance of examination of blood and presumptive test for blood.
- (2) Starch iodine and radial diffusion test for saliva.
- (3) Define fiber and give the tests carried out for fiber examination.
- (4) Explain the life cycle of blow fly.
- (5) Examination of hair.

3 Give the answers of following questions as per instruction :

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

- (1) Mention the types of suffocations.
- (2) Give the meaning of R,F,L,P in RFLP.
- (3) Give the forward and reverse method in ABO grouping.
- (4) Define and classify the mechanical injury.
- (5) Types of teeth
- (6) Define hanging

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

- (1) Explain the types of hanging.
- (2) According to pan formula what is the multiplying factor for : (i) Femur (ii) Tibia (iii) Fibula.

- (3) Describe the superimposition technique
- (4) Give the PM findings of choking and Gagging
- (5) Give the points of difference in Ante mortem and postmortem abrasions
- (6) Describe Canines and Premolars

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

- (1) Write a note on DNA profiling.
 - (2) Species origin test for blood
 - (3) Define death, types of death and give classification of death.
 - (4) Use Karl Pearson's formula (i) Femur bone length = 45 cm (ii) Tibia bone length = 32 cm. Find the stature of the person.
 - (5) Explain the abrasion injuries.
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