

B.Sc. Semester - 5 (CBCS) Examination**December -2020 (NEW COURSE)****Forensic Biology, Serology and Anthropology (Core)****Time: 1:30 Hours****Marks: 42****Instructions:**

1. Figures to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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Q - 1 (A) Answer in short:**(04)**

- (1) State the names of body fluids secreted from the body.
- (2) What is meant by PSA?
- (3) What is the percentage of secretors and non-secretors in general population?
- (4) Define melanuria

Q - 1 (B) Answer any one in brief:**(03)**

- (1) Explain the structure of sperm.
- (2) Write the tests for analysis of saliva

Q - 1 (C) Answer any one in detail:**(07)**

- (1) Write the TMB and Kastle Meyer tests in detail.
- (2) Write a note on confirmatory tests for analysis of blood.

Q - 2 (A) Answer in short:**(04)**

- (1) How much amount of DNA is required for RFLP?
- (2) In which year was PCR invented?
- (3) What is a molecular marker?
- (4) From which bacteria the enzyme TAQ Polymerase is obtained?

Q - 2 (B) Answer any one in brief:**(03)**

- (1) Write a note on components of PCR.
- (2) What are the applications of DNA profiling?

Q - 2 (C) Answer any one in detail:**(07)**

- (1) Write a detailed note on STR.
- (2) Write a note on RFLP.

Q - 3 (A) Answer in short:**(04)**

- (1) By whom the name enzyme was suggested?
- (2) Define isoenzymes?
- (3) What is apoenzyme?
- (4) With which example the enzyme – substrate can better explain?

Q - 3 (B) Answer any one in brief:**(03)**

- (1) Write a note on nomenclature of enzymes.
- (2) Briefly explain enzyme assay.

Q - 3 (C) Answer any one in detail: (07)

- (1) Explain enzyme kinetics.
- (2) Describe the methods of protein purification.

Q - 4 (A) Answer in short: (04)

- (1) Define forensic Botany
- (2) State the application of Botany in Forensic investigation.
- (3) What are narcotic drugs?
- (4) State the scientific name of Tobacco.

Q - 4 (B) Answer any one in brief: (03)

- (1) Describe morphological and anatomical characters of Opium plants.
- (2) Describe morphological and anatomical characters of Cannabis plants.

Q - 4 (C) Answer any one in detail: (07)

- (1) Describe the development of palynology science for forensic investigation.
- (2) Describe the methodology for study and identification of pollen grain.

Q - 5 (A) Answer in short: (04)

- (1) Who is considered as father of forensic anthropology?
- (2) What is the dental formula for temporary teeth?
- (3) Define anthropology.
- (4) What is Karl Pearson formula used for?

Q - 5 (B) Answer any one in brief: (03)

- (1) Write the multiplication factors used in Pan Formula.
- (2) What are the applications of forensic odontology?

Q - 5 (C) Answer any one in detail: (07)

- (1) Discuss diseases of teeth involving cementum.
- (2) State the morphological and anatomical differences between male and female bones.
