

B.Sc. Semester - 5 (CBCS) Examination**December - 2020 (Old 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) Based on protein structure mention types of blood group systems.
- (2) What is the percentage of secretors and non-secretors in general population?
- (3) Which are the major glands producing saliva?
- (4) Define hematuria

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

- (1) Write the tests for analysis of saliva.
- (2) Describe the significance of blood typing.

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

- (1) Write a note on confirmatory tests for analysis of blood.
- (2) Explain the tests for analysis of semen.

Q – 2 (A) Answer in short: (04)

- (1) Who invented the technique of PCR?
- (2) From which bacteria is enzyme TAQ Polymerase obtained?
- (3) What is a molecular marker?
- (4) What does VNTR stand for?

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

- (1) Define molecular markers and give four examples of molecular markers.
- (2) What are the applications of DNA profiling?

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

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

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

- (1) What are biocatalysts?
- (2) Who isolated the urease enzyme?
- (3) What are proteases?
- (4) What is an apoenzyme?

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

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

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

- (1) Explain mode of action of enzymes.
- (2) Write a detailed note on enzyme assay.

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

- (1) Define palynology.
- (2) Which flies is the first one to arrive on the dead bodies?
- (3) Mention names of plants used to manufacture drugs?
- (4) Mention names of any two endangered species of animals.

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

- (1) Explain types of entomology.
- (2) Write a note on wildlife sanctuaries and its importance.

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

- (1) Explain the life cycle of a blow fly.
- (2) Write a note on green collar crimes, evidence involved and the analysis in brief.

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

- (1) Define anthropology.
- (2) What is Karl Pearson formula used for?
- (3) What is the number of molars to be erupted as temporary teeth?
- (4) What is the dental formula for permanent teeth?

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

- (1) What are the applications of forensic anthropology?
- (2) What are the applications of forensic odontology?

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

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