

[105]

SEAT No. \_\_\_\_\_

No. of Printed Pages : 2

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**SARDAR PATEL UNIVERSITY**  
**M.Sc. (Forensic Science) Semester –IV Examination**  
**20<sup>th</sup> March, 2019 Wednesday**  
**Forensic Biology & DNA Profiling PS04CFSC22**

**TIME- 02:00 PM – 05:00 PM**

**TOTAL MARKS- 70**

**Instructions:**

1. Answer of all the questions (including multiple choice questions) should be written in the provided answer book only.
2. All the questions are compulsory.
3. Figures to the right indicate maximum marks of the questions.

**Q-1 Multiple Choice Questions:**

**(08)**

1. The Bloated stage of decomposition lasts for a period of \_\_\_\_\_ days.  
A) 1-2  
B) 2-7  
C) 5-13  
D) 1-5
2. The scientific name for Flesh Flies are \_\_\_\_\_.  
A) Muscidae  
B) Sacrophagidae  
C) Calliphoridae  
D) None of the above
3. Analytical Examination of Epithelial cells will be done under the examination of \_\_\_\_\_.  
A) Vaginal Sample  
B) Saliva Sample  
C) Vomitus  
D) All of the above
4. In which kind of sample of body fluid, dead WBC should be found from?  
A) Tear drop  
B) Saliva  
C) Pus Excreta  
D) Both A & B
5. In human blood such Antibody cannot be found as \_\_\_\_\_.  
A) Ig A  
B) Ig G  
C) Ig M  
D) Ig Y
6. Estimation of the Age of wood/tree can be done with the help of \_\_\_\_\_ calculation under the anatomical study.  
A) Wear & Tear on wood  
B) Patches on tree  
C) Cambium Ring  
D) Gum like secretion in form of %
7. DNA Fingerprinting is important under the study of \_\_\_\_\_.  
A) Maternity Paternity case  
B) Age Determination  
C) Skin Complexion study  
D) Psychological Condition
8. Single nucleotide study has been taking place while analyzing with \_\_\_\_\_ technique.  
A) STR  
B) RFLP  
C) SNP  
D) PCR

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C.P.T.O.)

**Q-2 Answer in Brief: (Any Seven)**

**(14)**

1. What is importance of Maggots with relation to dead bodies?
2. What happens in the decay stage of the Carcass?
3. Give any one test for Vomitus sample in human.
4. Explain: Acid Phosphate test for semen/sperm
5. What is Immunoglobulin E (IgE)?
6. Give labeled diagram of Diatoms.
7. What are the methods for Sterilizing Serological Apparatus?
8. Explain: Y-STR Technique
9. Write the Importance of DNA Fingerprinting.

**Q-3 (A) State the uses and limitations of Forensic Entomology. (06)**

**(B) Describe about Arthropods' relation with postmortem changes in Human body. (06)**

**OR**

**(B) Write a short on Wild Life Forensics and its importance in India. (06)**

**Q-4 (A) Write the difference of Natural and Manmade Fiber by Classifying it. (06)**

**(B) Describe various biochemical and microscopic tests for human Blood. (06)**

**OR**

**(B) Give various Tests for analyzing Human Urine. (06)**

**Q-5 (A) What is Immunity? Give Difference between Innate & Acquired Immunity. (06)**

**(B) Write about Immunoglobulin with its various types. (06)**

**OR**

**(B) Explain in detail: Paper/Paper pulp Examination (06)**

**Q-6 (A) Explain PCR Amplification in detail account. (06)**

**(B) 1. Write about RFLP Analysis of DNA (03)**

**2. What is CODIS? Give its importance in DNA Examination. (03)**

**OR**

**(B) Define Genotype & Phenotype and Calculate the Allele Frequency (p & q) along with Genotype frequency of AA, Aa & aa.**

**(AA, AA, Aa, aa, aa, Aa, AA, aa, aa, Aa, AA, Aa, aa, aa, Aa, AA, Aa, aa, aa, Aa)** **(06)**

— X —  
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