

SEAT No. _____

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SARDAR PATEL UNIVERSITY

M.Sc. Semester –IV (Forensic Science) Examination

Wednesday, 11th April-2018

PS04CFSC02: Forensic Biology & DNA Profiling

Time: 02:00PM-5:00PM

Total Marks: 70

Instructions:

1. Answer should be written with ball pen only.
2. All the questions are compulsory.
3. Figures to the right indicate maximum marks of the questions.

Q-1 Multiple Choice Questions:

(8)

1. Occurrence of alternate alleles in same population is known as _____.
(a) Metamorphism (b) Polymorphism
(c) Ketamorphism (d) Mimicry
2. _____ Speciation happens when a population of species that occupies a large range enters a new niche.
(a) Allopatric (b) Sympatric
(c) Parpatric (d) None of the above
3. Lectin's are found in _____ plant species.
(a) *Ricinus communis* (b) *Carduus nutans*
(c) *Dicio faba* (d) *Colicho slab*
4. Natural killer cells are class of _____.
(a) Lymphocytes (b) Erythrocytes
(c) Phagocytic cells (d) None of the above
5. ABO blood grouping system discovered by _____.
(a) Karl land Steiner, 1900 (b) Karl kend, 1992
(c) Kerry Mulis, 1900 (d) Steiner, 1885
6. _____ is a luminal reagent.
(a) 3-aminophthal hydrazide (b) KoH
(c) Zinc Dust (d) Ammonium Nitrate
7. The fifth toe in a tiger lion or dog is known as _____.
(a) Dew (b) Destiny
(c) Pentane (d) Death
8. _____ Development is used to estimate death period, which took place a month ago.
(a) Pupal (b) Seed
(c) Maggot (d) None of the above

Q-2 Answer in Brief: (Attempt Any 7)

(14)

1. Define Mimicry and its types.
2. Define Nucleotide & Nucleoside.
3. Enlist various methods for Blood analysis.
4. Write down various types of Fibre.
5. Explain "Bence-Jones protein".
6. State Forensic Importance of Timber analysis.
7. Define Pollen grains & its morphology.
8. Define "Entomotoxicology".
9. Enlist advantage & Disadvantage of road strip count in wildlife survey.

Q-3 (A) Explain various factors affecting equilibrium in Populations.

(6)

(B) Explain Darwin's Evolution & its postulations.

(6)

OR

(B) Write short note on "Restriction Fragment Length Polymorphism".

(6)

Q-4 (A) How analysis of menstrual blood is done in CFSL.

(6)

(B) "From hair analysis, species, age, sex & race can be determined"-Justify.

(6)

OR

(B) "Body Fluids/stains analysis is important in Individual characteristic"-Justify.

(6)

Q-5 (A) Explain the cleavage of Immunoglobins molecules obtained by papain & pepsin.

(6)

(B) Write a short note on "Adjuvants".

(6)

OR

(B) Write a short note on "Identifications of starch grains".

(6)

Q-6 (A) Explain the association of arthropods with post-mortem changes of human body.

(6)

(B) State the five stages of Decomposition in detail.

(6)

OR

(B) Define Index method & its types used for wildlife surveys.

(6)

X