SARDAR PATEL UNIVERSITY
T. Y. B.Sc. 5ᵀᴴ SEMESTER EXAMINATION
2020
29ᵗʰ December, 2020, Tuesday
02:00 pm to 04:00 pm
Forensic Science and Remote Sensing (US05CENV24)

Q.1. Select the correct answer and write it in the answer sheet (10)

1. _____ is also known as forensic dentistry.
 (a) Forensic Odontology   (b)Forensic Medicine
 (c) Forensic Toxicology   (d) Forensic Anthropology

2. _____ states that "Facts do not lie, men can and do".
 (a) Law of Comparison   (b) Law of Analysis
 (c) Law of Probability   (d) Law of Circumstantial Facts

3. _____ is conditional evidence.
 (a) Handwriting   (b) Fingerprints   (c) Position of body   (d) DNA

4. A loop that opens toward the thumb is called as _____.
 (a) Ulnar   (b) Plain   (c) Radial   (d) Accidental

5. DNA fingerprinting was developed by _____.
 (a) Francis Crick   (b) James Watson   (c) Alec Jeffrey   (d) Khorana

6. Expertise of a forensic science must include _____.
 (a) Analysis of physical evidence   (b) Expert witness
 (c) Evidence collection technique   (d) All of above

7. ____ are main components in remote sensing
 (a)platforms   (b) sensors   (c) aerial photos   (d) both a and b

8. The integration of different data layers involves a process called _____
 (a)overlay   (b) platform   (c) imaging   (d) frequency

9. ____ urban sprawl is classified as high density built-up areas of development at highways
 (a)Cluster expansion   (b) Linear pattern   (c) Leapfrog   (d) None of above

10. Visual interpretation has mainly _____ steps
 (a) four   (b) five   (c) six   (d) seven

Q.2. Answer the following True or False (08)

1. Fingerprints are unique for every individual.
2. Biology division of FSL examines carbon paper.
3. Whorl is the most common fingerprint pattern seen in humans.
4. The DNA fingerprint pattern of child is 100% similar to father's DNA print.
5. The geographical information system is also called as a geospatial information system.
6. Ozone absorbsshort energy, high wavelength portions of ultraviolet spectrum.
7. Reference data can be used as a Training data and Validation data.
8. TRMM is an acronym for Tropical Rainfall Measuring Mission.

Q.3 Answer the following in brief (Any Ten) (20)

1. Define forensic science.
2. Enlist principles of forensic science.
3. Describe in short about photography of crime scene.
4. Write pairing system of all ten fingers as per primary classification system of fingerprint.
5. Write effects of age and disease on human's fingerprints.
6. Describe formation of fingerprint with proper diagram.
7. Write in brief about Chandrayaan-2.
8. What is Atmospheric Windows?
9. Enlist functions of GIS.
10. Write in brief about LiDAR.
11. What is Parallelepiped decision rule?
12. How atmospheric studies are done using remote sensing?

Q.4 Answer the following in detail (Any four) (32)

1. Explain various sub division of forensic science in detail.
2. Write a note on physical evidence.
3. What are latent prints? How latent prints are collected?
4. Give a detailed note on DNA profiling.
5. Write about Electromagnetic Energy with its component, development and principle.
6. Discuss EMR interactions with atmosphere and Earth surface.
7. Write in detail about forest monitoring using digital image processing.
8. Discuss Geospheric survey using CAPE methodology

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