



FORENSIC SCIENCE_DU_2016

1. The wavelength range 2000Å-4000Å is known as :
(a) Short UV Region (b) Long UV Region
(c) Both (a) and (b) above (d) None of the above
2. NMR stands for :
(a) Nuclear magnetic Resonance (b) Non Magnetic Resonance
(c) Nuclei Magnetic Resonance (d) Normal Magnetic Resonance
3. X-rays were discovered by :
(a) Roentgen (b) Henry Becquerel (c) Goldstein (d) Bohr
4. X-Rays are especially useful for the identification of :
(a) Gemstones (b) Explosives (c) Metals (d) All of the above
5. Chromatography is based on the principle of :
(a) Column absorption (b) Adsorptive
(c) Extraction (d) Selective distribution
6. The separate technique involving the movement of charge particles through a matrix under the influence of an applied electric field is called :
(a) Electrolysis (b) Electrophoresis (c) Chromatography (d) All of the above
7. Gel Electrophoresis is based on :
(a) Size (b) Electrical charge (c) Physical property (d) All of the above
8. Specific gravity of blood is :
(a) 1 (b) 1.06 (c) 1.08 (d) 1.09
9. Another name of plasma is :
(a) Liquid plasma (b) Water (c) Liquor Sanguine (d) None of the above
10. In 1 mm³ of blood, the total number of RBC is :
(a) 5 million (b) 4 million (c) 4.5 million (d) 6 million
11. Hb A is also known as :
(a) $\alpha_2\beta_2$ (b) $2\alpha 2\beta$ (c) $\beta_2\gamma_2$ (d) None of the above
12. Which test is the confirmatory test for blood ?
(a) Benzidine test (b) Techmann test
(c) Both (a) and (b) above (d) All of the above



13. The blood falling through the air takes the shape of :
 (a) A sphere (b) Needle (c) Rhombus (d) Satellite
14. The concept 'ABO blood groups are inherited characteristics' was first observed by :
 (a) Karl Landsteiner (1911) (b) Dacatello and Sturli (1911)
 (c) Leon lattes (1911) (d) Von Dungern and Hirezfeld (1911)
15. Dry blood stains can be collected by :
 (a) Cutting (b) Scraping (c) Swabing (d) All of the above
16. Gel diffusion technique is used for :
 (a) Race identification (b) Sex identification
 (c) Age identification (d) Origin identification
17. AFLP stands for :
 (a) Automated Fragment Length Polymorphism (b) Atomic Fragment Length Polymorphism
 (c) Amplified Fragment Length Polymorphism (d) None of the above
18. Which of the following forensic DNA technique was first developed ?
 (a) STR (b) VNTR (c) AFLP (d) SNP
19. Which of the following substrate coupled with Brentamine Fast blue B for forensic application?
 (a) 4-MUB (b) α -naphthylphosphate
 (c) Both (a) and (b) above (d) None of the above
20. For how long sperm head can be observed in cervix ?
 (a) 1 week (b) 10-15 days (c) 4-6 days (d) 1 month
21. The range of daily saliva production is :
 (a) Between 0.5 and 0.75 litres (b) Between 0.5 and 1.00 litres
 (c) Between 0.75 and 1.00 litres (d) Between 0.75 and 1.5 litres
22. HAS stands for :
 (a) Human salivary α -amylase (b) Human salivary β -amylase
 (c) Human salivary γ -amylase (d) All of the above
23. The process of ejection of urine from the urinary bladder through the urethra to the outside of the body is called :
 (a) Micturition (b) Urination (c) Emiction (d) All of the above
24. Chemical test for urine detects :
 (a) Urea (b) Fatty acid (c) Both of the above (d) Amino acids
25. Jaffe test detects :
 (a) Creatinine in urine (b) Urea in urine
 (c) Indican in urine (d) None of the above

26. 3-indoxy sulphuric acid (Indican) in urine can be detected by :
 (a) ELISA (b) RIA
 (c) Gas chromatography (d) Thin Layer Chromatography
27. The study of hair is known as :
 (a) Lithography (b) Histology (c) Trichology (d) Mycotology
28. Human hair grows at the rate of approximately :
 (a) 0.2 mm/day (b) 0.3 mm/day (c) 0.4 mm/day (d) 0.5 mm/day
29. The shaft diameter in human hair is :
 (a) 20.-120 μ (b) 50-150 μ (c) 40-150 μ (d) 110 μ
30. Last phase of human growth is :
 (a) Telogen (b) Catagen (c) Anagen (d) None of the above
31. The fluorescence of semen stains under UV light is :
 (a) Bluish-white (b) Yellowish-green (c) Reddish-green (d) Purplish
32. Mitochondrial DNA can be usually found in :
 (a) Shed hair (b) Pulled hair (c) Animal hair (d) All of the above
33. Polyester is the repeating unit of :
 (a) Ether (b) Beads (c) Carbon (d) Ester
34. 'The dose makes the poison' said by :
 (a) Mathieu J.B. Orfila (b) Karl Landsteiner
 (c) Paracelsus (d) None of the above
35. A dead body is having cadaveric lividity of bluish green color, the most likely cause of death is by poisoning due to :
 (a) Hydrocyanic acid (b) Hydrogen sulphide
 (c) Oleander (d) Sodium nitrite
36. Both hepatic and renal toxicity can be caused by :
 (a) CCl_4 (b) Arsenic (c) Copper sulphate (d) All of the above
37. A patient with suspected poisoning has brownish oral mucosa and tongue, constricted pupil and greenish brown urine, poisoning is with :
 (a) Carbolic acid (b) Morphine (c) H_2SO_4 (d) Barbiturate
38. Average fatal period of lead poisoning is :
 (a) 1-2 hours (b) 15 hours (c) 1-2 days (d) Immediately
39. The term 'narcotic' is derived from the word :
 (a) Toxicon (b) Narcos (c) Narkotikos (d) Nokitos
40. Scientific name of opium is :
 (a) Papaver somniferum (b) Cannabis sativa
 (c) Erythroxylon coca (d) None of the above

41. The most common diluents of heroin is :
 (a) Codeine (b) Morphine (c) Starch (d) Quinine
42. Marijuana is derived from the plant :
 (a) Cannabis (b) Opium
 (c) Coca derivatives (d) All of the above
43. DRE stands for :
 (a) Drug Recognition Expert (b) Drug Rate Expert
 (c) Drug Rapid Effect (d) None of the above
44. Which of the following is not the metabolite of ethanol ?
 (a) Acetaldehyde (b) Acetone (c) Acetic acid (d) All of the above
45. Study of the motion of a projectile from the muzzle of the weapon to the target is :
 (a) External ballistics (b) Terminal ballistics
 (c) Internal ballistics (d) None of the above
46. The constriction of the barrel near the muzzle is known as :
 (a) Pitch (b) Twist (c) Choke (d) Yaw
47. The firing range of the pistol is around :
 (a) 30-45 yards (b) 20-25 yards (c) 10-25 yards (d) 45-50 yards
48. The primer mixer residue consists of :
 (a) Mercury (b) Potassium Chlorate
 (c) Nitrate (d) All of the above
49. The comparison microscope became an indispensable tool of firearm examination through the efforts of:
 (a) Hans Gross (b) Calvin Goddard
 (c) Paul Kirk (d) Edmond Locard
50. Substance that brings relief from pain and produces sleep is known as :
 (a) Psychotropic substance (b) Narcotic
 (c) Therapeutic medicine (d) Poison
51. In which year Alphonse Bertillon developed the science of Anthropometry
 (a) 1879 (b) 1880 (c) 1881 (d) 1882
52. Who is known as father of modern toxicology ?
 (a) Mathieu Orfila (b) Henry Faulds (c) Edmond Locard (d) Calvin Goddard
53. The Central Forensic Science Laboratory under CBI, New Delhi was established in the year :
 (a) 1966 (b) 1967 (c) 1968 (d) 1969
54. Who propounded the 'Principle of Exchange'?
 (a) Francis Galton (b) Alphonse Bertillon
 (c) Hans Gross (d) Edmond Locard

55. Which division of a crime laboratory conducts the examination of body fluids and organs for drugs and poisons ?
 (a) Chemistry division (b) Ballistic division
 (c) Toxicology division (d) Physics division
56. The most reliable form of evidence is :
 (a) Weapon (b) Fiber (c) Clothes (d) Fingerprints
57. Who devised the first workable procedure for dried bloodstains ?
 (a) Dr. Leone Lattes (b) Karl Landsteiner
 (c) Paracelsus (d) Hans Gross
58. Who developed the first microscopic crystal test for haemoglobin using haem crystals ?
 (a) Ludwig Teichmann, 1853 (b) Vittorio Siracusa, 1853
 (c) Frank Lundquist, 1853 (d) Leon Lattes, 1853
59. In a firearm injury, there is burning, blackening, tattooing around the wound along with the cherry red color of the surrounding tissues and is circular in shape, the injury should have :
 (a) Close shot entry (b) Close contact exit
 (c) Contact shot entry (d) Distance shot entry
60. When and where Government of India established first Government Examiner of questioned documents ?
 (a) Shimla, 1906 (b) Calcutta, 1906
 (c) Chandigarh, 1906 (d) Hyderabad, 1906
61. In India, the first state forensic science laboratory was established at :
 (a) Calcutta, 1952 (b) Calcutta, 1955 (c) Delhi, 1952 (d) Delhi, 1955
62. Which division of crime laboratory conducts the examination of bullets cartridge cases, shot-gun shells and ammunition of all types ?
 (a) Chemistry division (b) Biology division
 (c) Physics division (d) Ballistics division/firearms division
63. Physical evidence at the scene of crime should be collected in the presence of :
 (a) Relation of victims (b) One independent witness
 (c) Two independent witnesses (d) Magistrate
64. Blood stained clothes from the scene of crime should be packed after :
 (a) Drying in shade at room temperature (b) Drying for two hours in bright sunlight
 (c) Heating upto 60°C (d) As such without drying
65. Causing disappearance of evidence of offence by a forensic scientist can be punished under :
 (a) Section - 201, IPC (b) Section - 201, CrPC
 (c) Section - 301, IPC (d) Section - 301, Cr PC

66. In which year Albert Osborn authored the classic book titled 'Questioned Documents'?
- (a) 1909 (b) 1910 (c) 1911 (d) 1912
67. The best collection media for paper that have a smell like gasoline or diesel is :
- (a) Small plastic zip lock bag (b) Cellophane envelope
(c) Metal box (d) Waterproof paper bag
68. The DNA evidence database is called :
- (a) CODNA (b) CCDNA (c) CODIS (d) CODIA
69. Edgescopy is the study of :
- (a) Lip prints (b) Fingerprints (c) Foot prints (d) Palatal prints
70. Section 420, IPC describes :
- (a) Theft (b) Murder (c) Forgery (d) Rape
71. Opinions of experts is defined under :
- (a) Section - 45, Indian Evidence Act (b) Section - 46, Indian Evidence Act
(c) Section - 42, Indian Evidence Act (d) Section - 43, Indian Evidence Act
72. Section 15, NDPS Act' 1985 describes punishment for contravention in relation to :
- (a) Poppy straw (b) Coca plant and coca leaves
(c) Prepared opium (d) Opium poppy and opium
73. The section dealing with examination-in-chief is :
- (a) Indian Evidence Act-135 (b) Indian Evidence Act-136
(c) Indian Evidence Act-137 (d) Indian Evidence Act-138
74. Explosives is described in :
- (a) Explosives substance Act 1908 (b) Explosives substance Act 1918
(c) Explosives substance Act 1928 (d) Explosives substance Act 1980
75. Composition of Molotov Cocktail is :
- (a) Kerosene + sulphuric acid (b) Diesel + sulphuric acid
(c) Water + sulphuric acid (d) Petrol + sulphuric acid
76. A glass pane having a clean hole with almond shape flaking on one side, will indicate that :
- (a) A bullet at right angle hit it (b) A bullet at an oblique angle hit it
(c) It was broken due to sun rays (d) It was broken by an oval shaped stone
77. Presence of soil in shoes can help to determine :
- (a) Time of crime (b) Mode of crime (c) Type of crime (d) Place of crime
78. Boyde's method helps in determination of age from :
- (a) Bone (b) Teeth (c) Nail (d) Hair

79. Flake of which metal is used to detect the presence of sulphur compounds in the paper :
 (a) Aluminium (b) Copper (c) Silver (d) Gold
80. The process which leaves impression on reverse side of the note is :
 (a) Intaglio process (b) Sophisticated printing
 (c) Offset printing (d) None of the above
81. Report submitted by the Director, Deputy Director or Assistant Director of a forensic science laboratory are admissible as evidence in court under section :
 (a) CrPC - 291 (b) CrPC - 292 (c) CrPC - 293 (d) CrPC - 294
82. Which of the following method is the most reliable for identification amongst identical twins :
 (a) Fingerprints (b) DNA Finger printing
 (c) Scar marks (d) Blood groups
83. Which of the following has medico-legal importance ?
 (a) Lower end of femur (b) Upper end of humerus
 (c) Upper end of femur (d) Lower end of humerus
84. Post-mortem calorificity may be seen in all of the following causes of death, except :
 (a) Septicaemia (b) Barbiturates poisoning
 (c) Strychnine poisoning (d) Tetanus
85. Most of the chance finger impressions at the scene result from :
 (a) Tip of the finger (b) Palm of the hand
 (c) Hairy part of the body (d) Toes of the feet
86. Cyanosis occurs when the concentration of reduced haemoglobin exceeds :
 (a) 4g% (b) 2g% (c) 5g% (d) 6g%
87. Fracture in vertebrae are seen in case of judicial hanging at :
 (a) C4-C5 (b) C1-C2 (c) C2-C3 (d) C6-C7
88. Forensic scientist is exempted from appearing in the court of law under section :
 (a) 72-IEA (b) 92-IPC (c) 293-CrPC (d) 302-IPC
89. Injury that comes under IPC Section 320 is :
 (a) Abrasion over face (b) Nasal bone fracture
 (c) Epistaxis (d) Lacerated wound over scalp
90. Curling ulcer is seen in :
 (a) Head injury (b) Burn (c) Corticosteroid (d) TPN
91. At what age does the birth length doubles :
 (a) 1 year (b) 2 years (c) 3 years (d) 4 years

92. A 60-year old male suffering from auditory hallucination says that people staying upstairs are talking about him and conspiring against him. He dropped a police complaint against them, but allegations were proved to be wrong. The diagnosis is :
- (a) Schizophrenia (b) Depression (c) Dementia (d) Delusional disorder
93. Exhumation can be done in India :
- (a) After 7 years (b) After 2 years (c) After 10 years (d) At any time
94. Brain is preserved in all of the following except :
- (a) OPC Poisoning (b) Alkaloid poisoning
(c) Heavy metal poisoning (d) Volatile organic poisoning
95. $S = \frac{A^2 N^3}{4BK}$ is the formula of :
- (a) Stopping power (b) Muzzle velocity
(c) Stability factor (d) Ballistic coefficient
96. Human femur can be identified by the presence of :
- (a) Long and narrow neck (b) Linea aspera
(c) Rounded head (d) Medial Condyle
97. A man gets drowned in a pond. The most characteristic finding at autopsy is :
- (a) Petechial haemorrhages (b) Washerwoman's feet
(c) Cutis aserine (d) Froth at mouth and in respiratory passage
98. Statement not true about rigor mortis is :
- (a) Appears immediately after death
(b) Affects both voluntary and involuntary muscles
(c) Indicates times since death
(d) Results from fusion of actin and myosin filaments
99. Who is known as father of Microscopy ?
- (a) Zaccharias Jansen (b) Antony Van Leewenhoek
(c) Robert Hooke (d) Ernest Abbe
100. In forensic science, stereomicroscope is used for the examination of :
- (a) Disputed documents (b) Fibres
(c) Both (a) and (b) above (d) None of the above