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**M.Sc. Forensic Science Entrance Examination Sample question paper-2**

**Time: 2.00Hrs**

**Marks: 100**

- All question carry 1 mark each, No negative mark
- No electronic devices are permitted

- DNA is absent in
  - Nucleus
  - Chloroplast
  - Ribosomes
  - Mitochondria
- During cell growth, DNA synthesis takes place in
  - G<sub>1</sub> phase
  - S phase
  - M phase
  - G<sub>2</sub> phase
- Rate of heart beat is determined by
  - Purkinje fibres
  - Papillary muscles
  - SA- node
  - AV- node
- Which of the following combinations is correct?
  - Porifera – Diploblastic
  - Cnidaria – Acoelomate
  - Annelida – Pseudocoelomate
  - Platyhelminthes – Triploblastic acoelomate
- The counter current mechanism occurs in:
  - Heart
  - Kidney
  - Liver
  - Brain
- Royal jelly is produced by:
  - Worker bees
  - Queen bee
  - Drone
  - Larva
- Which of the following is a purine base?
  - Cytosine
  - Uracil
  - Thymine
  - Adenine
- Which ion is essential for muscle contraction?











48. Buffer solutions resist change in:
- a) Temperature
  - b) Pressure
  - c) pH
  - d) Volume
49. Which law relates absorbance and concentration?
- a) Beer-Lambert law
  - b) Boyle's law
  - c) Raoult's law
  - d) Hess's law
50. Which technique is used to identify unknown organic compounds in forensics?
- a) Chromatography
  - b) Mass spectrometry
  - c) Distillation
  - d) Filtration
51. The Indian Penal Code was enacted in:
- a) 1857
  - b) 1872
  - c) 1860
  - d) 1901
52. Section 302 of the Indian Penal Code deals with:
- a) Theft
  - b) Kidnapping
  - c) Cheating
  - d) Murder
53. A primary crime scene refers to:
- a) Place where suspect lives
  - b) Location where crime actually occurred
  - c) Police station
  - d) Courtroom
54. Evidence that can be easily transferred between objects is called:
- a) Class evidence
  - b) Individual evidence
  - c) Trace evidence
  - d) Direct evidence
55. Which technique is commonly used to separate mixtures?
- a) Filtration
  - b) Chromatography
  - c) Evaporation
  - d) Crystallization
56. The principle of Chromatography is based on:
- a) Density difference
  - b) Differential adsorption
  - c) Boiling point
  - d) Magnetic properties
57. Criminology is the study of:
- a) Crimes and criminal behaviour
  - b) Chemicals
  - c) Medicine
  - d) Physics



58. The study of poisons is called:
- a) Pathology
  - b) Toxicology
  - c) Serology
  - d) Anthropology
59. Which poison affects the central nervous system?
- a) Alcohol
  - b) Cyanide
  - c) Arsenic
  - d) Lead
60. Cyber forensics deals with:
- a) Blood analysis
  - b) Digital evidence
  - c) Fingerprints
  - d) Ballistics
61. The most common fingerprint pattern is:
- a) Arch
  - b) Loop
  - c) Whorl
  - d) Spiral
62. Fingerprint identification is based on:
- a) Color
  - b) Ridge patterns
  - c) DNA
  - d) Shape of hand
63. Ballistics is the study of:
- a) Blood
  - b) Documents
  - c) Bullets and firearms
  - d) Fibers
64. The marks left on a bullet by a firearm are called:
- a) Striations
  - b) Fingerprints
  - c) Impressions
  - d) Patterns
65. Forgery refers to:
- a) Original writing
  - b) Duplicate copy
  - c) Printed material
  - d) False document creation
66. Capillary electrophoresis has advantage of:
- a) Low resolution
  - b) High efficiency
  - c) Low sensitivity
  - d) Slow separation
67. A highly lipophilic poison is best detected using:
- a) GC-MS
  - b) PCR
  - c) UV
  - d) Microscopy
68. Antemortem wounds show:
- a) No bleeding
  - b) Inflammation
  - c) No reaction
  - d) Dry edges
69. SQL injection targets:





- a) Wave nature of light                      b) Particle nature of light  
c) Magnetic property of light      d) Polarization of light
79. Which type of radioactive decay results in the emission of an electron?  
a) Alpha decay                                  b) Beta decay  
c) Gamma decay                                d) X-ray emission
80. Unit of power is:  
a) Joule    b) Watt  
c) Newton                                         d) Pascal
81. Momentum is:  
a) Scalar    b) Vector  
c) Dimensionless                                d) Constant
82. Torque depends on:  
a) Force only                                      b) Distance only  
c) Force and perpendicular distance      d) Mass
83. SI unit of viscosity:  
a) Pascal-second                                b) Newton  
c) Watt    d) Joule
84. Surface tension acts:  
a) Upward                                         b) Downward  
c) Along surface                                 d) Inside liquid
85. Kinetic energy of gas depends on:  
a) Pressure                                        b) Volume  
c) Temperature                                 d) Density
86. Ultrasonic waves frequency:  
a) <20 Hz                                         b) 20–20,000 Hz  
c) >20,000 Hz                                 d) Infinite
87. Second law of thermodynamics deals with:  
a) Work     b) Energy  
c) Entropy                                         d) Temperature
88. Coulomb's law applies to:  
a) Mass    b) Charges  
c) Energy                                         d) Waves



89. Electromagnetic induction discovered by:  
a) Newton  
b) Faraday  
c) Einstein  
d) Ohm
90. NOT gate is also called:  
a) Inverter  
b) Amplifier  
c) Oscillator  
d) Filter
91. X-rays discovered by:  
a) Curie  
b) Roentgen  
c) Bohr  
d) Planck
92. Frequency unit:  
a) Watt  
b) Hertz  
c) Newton  
d) Pascal
93. Electric current is flow of:  
a) Protons  
b) Neutrons  
c) Electrons  
d) Photons
94. Moment of inertia depends on:  
a) Mass  
b) Distribution of mass  
c) Axis  
d) All
95. Bulk modulus relates to:  
a) Length change  
b) Volume change  
c) Shape change  
d) Area change
96. Doppler effect affects:  
a) Speed  
b) Frequency  
c) Amplitude  
d) Wavelength only
97. Series circuit has same:  
a) Voltage  
b) Current  
c) Resistance  
d) Power
98. Unit of magnetic field:  
a) Tesla  
b) Weber  
c) Henry  
d) Volt
99. Fleming's right-hand rule gives:  
a) Force  
b) Current direction  
c) EMF direction  
d) Resistance
100. LED works on:  
a) Heating  
b) Photoelectric effect  
c) Electroluminescence  
d) Induction