

# AIFSET 2023

## All India Forensic Science Entrance Test

AIFSET 2023 Model Paper

M.Sc. Forensic Science

1. In the 15<sup>th</sup> century, ammunition uses which of the following chemicals as propellant?
- a) Charcoal
  - b) Sulphur
  - c) Potassium Nitrate
  - d) All of the above

Ans. D

2. In firearms, a cartridge case includes
- a) Ammunition Case
  - b) Primer
  - c) Bullet
  - d) Both (a) and (b)

Ans. D

3. CCFP stands for?
- a) Cyber Certified Forensics Professional
  - b) Certified Cyber Forensics Professional
  - c) Certified Cyber Forensics Program
  - d) Certified Cyber Forensics Product

Ans. B

4. Sodomy is punishable under section.....IPC.
- a) 354
  - b) 375
  - c) 377
  - d) 378

Ans. C

5. In a dummy cartridge, which of the following component is missing?
- a) Primer Charge
  - b) Powder Charge
  - c) Cartridge Case
  - d) Both (a) and (b)

Ans. D

6. A dead body is found to have marks like branching of a tree on front of the chest. Most likely cause of death could be:
- a) Firearm injury

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- b) Lightning injury
- c) Road traffic accident
- d) Bomb blast injury

Ans. B

**7. Joule burn is seen in:**

- a) Blast injuries
- b) Electrocutation
- c) Firearm wounds
- d) Lightning stroke

Ans. B

**8. Dying declaration is to be preferably recorded by-**

- a) Doctor
- b) Police
- c) Magistrate
- d) Jury Member

Ans. C

**9. Preservation of footprint on snow can be done by-**

- a) Plaster of Paris Cast
- b) Sulphur casting
- c) Tracing
- d) Wax Casting

Ans. B

**10. Maximum ethyl alcohol content is seen in.....**

- a) Rum
- b) Brandy
- c) Whisky
- d) Gin

Ans. A

**11. Light that has all its waves pulsating in unison is called-**

- a) Maser
- b) Laser
- c) Monochromatic Light
- d) Polychromatic light

Ans. B

**12. The Indian Arms Act enforced in-**

- a) 1955
- b) 1959

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- c) 1961
- d) 1964

Ans. B

**13. Putrefaction is retarded by-**

- a) Organophosphorus poison
- b) Oxalic acid
- c) Carbolic acid
- d) Hydrochloric acid

Ans. C

**14. False perception without any external stimulus is:**

- a) Hallucination
- b) Delirium
- c) Illusion
- d) Delusion

Ans. A

**15. Kerosene like smell from mouth is present in..... poisoning.**

- a) Mercury
- b) Arsenic
- c) Organophosphorus
- d) Phosphorus

Ans. C

**16. Fatal dose of methyl alcohol is.....**

- a) 20-40 ml
- b) 40-50 ml
- c) 60-200 ml
- d) 200-300 ml

Ans. C

**17. Seminal fluid choline originates from the-**

- a) Seminal vesicle
- b) Sertoli's cell
- c) Leydig cell
- d) Prostate

Ans. C

**18. Considering mode of administration, poison acts more rapidly when:**

- a) Inhaled in gaseous state
- b) Injected intramuscularly
- c) Injected subcutaneously

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d) Applied to skin

Ans. A

**19. Earliest hand cannons are load from which end?**

- a) Muzzle end
- b) Brach end
- c) Top-lift end
- d) Both (1) and (2)

Ans. A

**20. What is the ammunition loading mechanism of a matchlock pistol?**

- a) Muzzle load
- b) Breach load
- c) Top-lift load
- d) Both (1) and (2)

Ans. A

**21. What is caliber in ballistic?**

- a) Diameter of bullet
- b) Diameter of cartridge case
- c) Internal diameter of the barrel
- d) External diameter of handgun barrel

Ans. C

**22. Expert witness:**

- a) Is nowhere defined in law.
- b) Legally defined U/S 45 IEA
- c) Legally defined U/S 176 CrPC
- d) Legally defined U/S 320 IPC

Ans. B

**23. The principle of exchange was authored by which of the following?**

- a) Hans Gross
- b) Sir Francis Galton
- c) Henry Faulds
- d) Edmond Locard

Ans. D

**24. A fetus become viable by the age of-**

- a) 6 months
- b) 7 months
- c) 8 months
- d) 9 months

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Ans. B

**25. The term 'Eddy Diffusion is used in which of the following analytical techniques?**

- a) Microscopy
- b) Chromatography
- c) Spectrophotometry
- d) Differential thermal analysis

Ans. B

**26. Polarizing microscope has been used to study which of the following?**

- a) Density of soil particles
- b) Texture of soil particles
- c) Presence of humus in soil
- d) Presence of some minerals in soil

Ans. D

**27. Which of the following reagents are used for precipitating DNA?**

- a) Ethanol
- b) Methanol
- c) Chloroform
- d) Phenol

Ans. A

**28. The book entitled 'An Introduction to Criminalistics' was written by-**

- a) Hans Gross
- b) Soderman
- c) Paul Kirk
- d) Osterburg & O'Hara

Ans. D

**29. Following are the essential points in a proper sketch of scene of crime-**

- a) North direction
- b) Scale
- c) Legend
- d) All of the above

Ans. D

**30. The suitable control sample in case of blood-stained soil is usually taken within the distance of..... from spot.**

- a) 3 inches
- b) 1 foot
- c) 2 feet
- d) 3 feet

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Ans. A

**31. Beveling of a wound is seen in the following injuries-**

- a) Contusion
- b) Laceration
- c) Abrasion
- d) Incised wound

Ans. D

**32. Blackening around gun-shot holes in clothes, means:**

- a) Deposit of smoke
- b) Deposit of lead vapors
- c) Deposit of black powder
- d) All are correct

Ans. D

**33. The polymorphic enzymes found in human blood may help in-**

- a) Individualization
- b) Polymorphism
- c) Agglutination
- d) Precipitation

Ans. A

**34. How many layers must be matched before the forensic expert can conclude that the paints come from the same source?**

- a) 8 layers
- b) 10 layers
- c) 15 layers
- d) No criterion

Ans. D

**35. AFIS is used for which of the following?**

- a) To determine the age of fingerprints
- b) To track the latent fingerprint evidence
- c) To store and retrieve the fingerprint records with the help of a computer system
- d) To develop the latent fingerprints with the help of a computer system

Ans. C

**36. Ridge characteristics can be found in:**

- a) Footprint
- b) All
- c) Fingerprints
- d) Palm prints

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Ans. B

**37. Ten fingerprints classification system is also known as:**

- a) Bertillon's system
- b) Fauld's system
- c) Henry's system
- d) Galton's system

Ans. C

**38. The skin layer between the epidermis and dermis is the..... layer:**

- a) Cuticle
- b) Basal
- c) Top
- d) Subcutaneous

Ans. B

**39. Fingerprints dissolved in this only grow back with scars on them making them more unique:**

- a) Water
- b) Neutral
- c) Acid
- d) Base

Ans. C

**40. Rhythmic writing is more seen in:**

- a) Skilled writers
- b) Unskilled writers
- c) One can't govern the skills of the writer by using rhythm writing
- d) All of the above

Ans. A

**41. The outer terminus in a pattern formed by either bifurcation of a ridge or by the widening of the two ridges running parallel up to the point is called:**

- a) Core
- b) Divergence
- c) Delta
- d) Bifurcation

Ans. C

**42. Debris material collected from arson crime scene should be packed in:**

- a) Sealed paper bag
- b) Plastic bag
- c) Cloth bag

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d) Metal box with tight lid

Ans. D

**43. The..... test is commonly used to identify alpha-amylase in saliva.**

- a) Precipitin
- b) Kastle-Meyer
- c) Florence
- d) Starch-Iodide

Ans. D

**44. Following is not an improvised explosive:**

- a) Pipe bomb
- b) Letter bomb
- c) Hand grenade
- d) Acid bulb

Ans. C

**45. Sequence of process of arson is:**

- a) Open combustion- use of primary liquid-ignition
- b) Ignition- open combustion-use of primary liquid
- c) Open combustion- ignition- use of primary liquid
- d) Use of primary liquid- open combustion- ignition

Ans. D

**46. At pH 6 glycine behaves as:**

- a) Anion
- b) Cation
- c) Zwitterion
- d) Inorganic ion

Ans. C

**47. Cherry red discoloration of blood is due to:**

- a) Oxy hemoglobin
- b) Red hemoglobin
- c) Carboxy hemoglobin
- d) Cyanometh hemoglobin

Ans. C

**48. Primary high explosive used in percussion cup of cartridge is:**

- a) Lead azide
- b) TNT
- c) PETN
- d) RDX

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Ans. A

**49. ANFO stands for:**

- a) Ammonium nitrite fuel oil
- b) Ammonium nitrate fuel oil
- c) Ammonium nitride fuel oil
- d) Ammonium nitroglycerine fuel oil

Ans. B

**50. Amatol contains:**

- a) TNT & RDX
- b) TNT & tetryl
- c) TNT and PETN
- d) TNT and Ammonium Nitrate

Ans. D

**51. Exhumation means:**

- a) Digging out of a buried body
- b) Examination of skeletal remains
- c) Injecting formalin into body for preservation
- d) Execution of a death sentence

Ans. D

**52. Which one of the following can be considered as the class of computer threats?**

- a) Dos Attack
- b) Phishing
- c) Soliciting
- d) Both A and C

Ans. B

**53. Optical components in UV spectrometer are made up of:**

- a) Glass
- b) Quartz
- c) Sodium-halide bromide
- d) Plastic

Ans. B

**54. A person may be charged together if in a year he conducts:**

- a) 4 offences of the same kind
- b) 6 offences of the same kind
- c) 3 offences of the same kind
- d) 5 offences of the same kind

Ans. C

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**55. Which of the following types of inquests are presently held in India?**

- a) Coroner and Police
- b) Police and Medical Examiner
- c) Public and Magistrate
- d) Magistrate and Coroner

Ans. C

**56. In an air crash case, the following method of survey is most useful-**

- a) Strip method
- b) Spiral method
- c) Zonal method
- d) Wheel method

Ans. D

**57. Semen sample having no sperms is called**

- a) Oligospermic
- b) Aspermic
- c) Histospermic
- d) Hematospermic

Ans. B

**58. Petroleum products include-**

- a) LPG and CNG
- b) Aviation spirit
- c) Kerosene
- d) All of the above

Ans. D

**59. Blood Alcohol Concentration (BAC) is measured in**

- a) Weight/volume percent
- b) Volume/volume percent
- c) Weight/weight percent
- d) All of the above

Ans. A

**60. Which of the following witness can be asked a leading question during examination-in-chief?**

- a) Hostile witness
- b) Expert witness
- c) None
- d) Common witness

Ans. A

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**61. The level of toxicity of dhatura plant on the basis of increasing level is-**

- a) Root, seeds, fruit, leaf
- b) Leaf, root, fruit, seeds
- c) Fruit, root, seeds, leaf
- d) Seeds, leaf, root, fruit

Ans. B

**62. Zip gun is a**

- a) 12 bore gun
- b) Automatic gun
- c) Improvised gun
- d) AK-47

Ans. C

**63. In which section of the CrPC provision for free legal aid is given:**

- a) 314
- b) 381
- c) 304
- d) 334

Ans. C

**64. Section 15, NDPS Act 1985 describes punishment for contravention in relation to:**

- a) Poppy straw
- b) Prepared opium
- c) Coca plant and coca leaves
- d) Opium poppy and opium

Ans. A

**65. Ricochet of bullet means-**

- a) Penetration of bullet
- b) Deflection of bullet
- c) Unfired bullet
- d) Tandem bullet

Ans. B

**66. Fouling is useful in determination of approximate-**

- a) Distance of fire
- b) Time of fire
- c) Penetration of projectile
- d) Velocity of projectile

Ans. B

**67. Walker test of GSR is done for the identification of presence of-**

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- a) Metallic residue
- b) Nitrate
- c) Sulphur
- d) Nitrite

Ans. D

**68. Scales are found on the following fibre:**

- a) Wool
- b) Cotton
- c) Linen
- d) Silk

Ans. A

**69. Murder cases are tried in the following courts:**

- a) 1<sup>st</sup> class metropolitan Magistrate's court
- b) Sessions court
- c) Chief judicial magistrate's court
- d) High court

Ans. B

**70. Which of the following type of abrasions are associated in sexual assault over the thigh of a woman?**

- a) Graze
- b) Imprint
- c) Pressure
- d) Scratch

Ans. D

**71. Causing disappearance of evidence of offence by a forensic scientist can be punished under:**

- a) Section 401, IPC
- b) Section 201, IPC
- c) Section 301, IPC
- d) Section 202, IPC

Ans. B

**72. ABO grouping is based on-**

- a) Red cell surface antigen
- b) Plasma proteins
- c) Red cell enzyme
- d) Nuclear chromatin

Ans. A

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**73. The total number of bones in the human skeleton in an adult is:**

- a) 208
- b) 308
- c) 408
- d) 508

Ans. A

**74. Its important to separate witnesses at a crime scene in order to:**

- a) For the protection
- b) For the prevention of contamination of evidence
- c) To prevent from running
- d) Prevent them from talking and forming a collusion

Ans. D

**75. Section 489A, IPC describes:**

- a) Counterfeiting of coins
- b) Counterfeiting government stamps
- c) Counterfeiting currency notes or bank notes
- d) Possession of forged or counterfeit currency notes

Ans. C

**76. Hurt is described in the following section of IPC:**

- a) 318
- b) 319
- c) 317
- d) 320

Ans. B

**77. In vehicle accident, tyre marks on body is suggestive of:**

- a) Run over
- b) Primary impact
- c) Secondary impact
- d) Tertiary impact

Ans. A

**78. Inquest means inquiry into:**

- a) Rape case
- b) Dacoity case
- c) Assault case
- d) Cause of death

Ans. D

**79. The image seen through a compound microscope is-**

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- a) Virtual
- b) Real
- c) False
- d) Imaginary

Ans. A

**80. The time taken by an unretained species to pass through a chromatography column is known as:**

- a) Void time
- b) Flow time
- c) Retention time
- d) Lag time

Ans. C

**81. In SEM, the incident beam is focused by means of-**

- a) Lens
- b) Mirrors
- c) Electromagnets
- d) Slits

Ans. C

**82. The basic chemical process in burning:**

- a) Hydroxylation
- b) Ignition
- c) Combustion
- d) Oxidation

Ans. D

**83. The modern breath alcohol instrument is based on technology of:**

- a) NMR spectroscopy
- b) Infrared spectroscopy
- c) Fluorescence spectroscopy
- d) Emission spectroscopy

Ans. B

**84. Which of the following is the cause of 'Hooch Tragedy'?**

- a) Acetic acid
- b) Methanol
- c) Formalin
- d) Acetaldehyde

Ans. B

**85. Which type of the teeth are not present in human primary dentition?**

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- a) Molar
- b) Premolar
- c) Incisor
- d) Canine

Ans. B

**86. Wisdom teeth is also known as:**

- a) Lateral incisor
- b) Canine
- c) Third molar
- d) Second premolar

Ans. C

**87. Basic requirements of monochromator are:**

- a) Resolution
- b) Spectral range
- c) Dispersion
- d) All of the above

Ans. D

**88. Mass spectrometry requires the sample to be in:**

- a) Liquid state
- b) Vapor state
- c) Solid state
- d) Semisolid state

Ans. B

**89. The first permanent tooth to erupt is:**

- a) Bicuspid-II
- b) Molar-II
- c) Molar-I
- d) Lateral incisor

Ans. C

**90. The presence of buccal epithelial cells confirms the following:**

- a) Blood
- b) Urine
- c) Saliva
- d) Semen

Ans. C

**91. The author of the book entitled "Suspect Document" is-**

- a) Osborn and Osborn

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- b) Ordway Hilton
- c) Wilson R. Harrison
- d) D.R.A Huber

Ans. C

**92. L.N.J.P National Institute of Criminology & Forensic Science was established at New Delhi in the following year:**

- a) 1968
- b) 1970
- c) 1972
- d) 1974

Ans. C

**93. ABO grouping is based on:**

- a) Red cell surface antigen
- b) Plasma proteins
- c) Nuclear chromatin
- d) Red cell enzyme

Ans. A

**94. Prostate-specific antigen is also called as:**

- a) Amylase
- b) P30
- c) Proteinase K
- d) Pylase

Ans. B

**95. Linea aspera is present on which of the following bone?**

- a) Femur
- b) Humerus
- c) Clavicle
- d) Ulna

Ans. A

**96. Ossification of bones may be used for determination of-**

- a) Sex
- b) Age
- c) Stature
- d) Time since death

Ans. B

**97. The footprints found at the scene of crime, indicates which of the following?**

- a) No. of persons involved

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- b) Height of the persons involved
- c) Entrance or exit of the persons involved
- d) All of the above

Ans. D

**98. Seminal stains on clothing should be packed in:**

- a) Paper bags
- b) Zip lock bag
- c) Cardboard box
- d) Plastic containers

Ans. A

**99. Colostrum is a form of:**

- a) Blood
- b) Milk
- c) Semen
- d) Saliva

Ans. B

**100. The following forms the finger ridges:**

- a) Dermal cells
- b) Dots or islands
- c) Rows of sweat pores
- d) Minutiae

Ans. C