

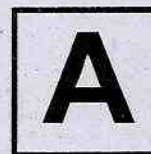
**DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO**

Booklet Serial No.

000029

Test Booklet Series


**TEST BOOKLET - 2022**  
**SCIENTIFIC OFFICER NARCOTICS**  
**(01)**



**Time Allowed: Two Hours**

**Maximum Marks: 120**

**INSTRUCTIONS**

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES **NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Response Sheet. Any omission/discrepancy will render the Response Sheet liable for rejection.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write anything else on the Test Booklet. 
4. This Test booklet contains **120** items (questions). Each item comprises of four responses (answers). You will select the response which you want to mark on the Response sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Response Sheet provided. See directions in the Response Sheet.
6. All items carry equal marks.
7. Before you proceed to mark in the Response sheet the response to various items in the Test Booklet you have to fill in some particulars in the Response Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Response Sheet and the examination has concluded, you should hand over to the Invigilator **only the Response Sheet**. You are permitted to take away with you the Test Booklet and Candidate's Copy of the Response Sheet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong answers:**  
**THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY THE CANDIDATE.**
  - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **0.25** of the marks assigned to that question will be deducted as penalty.
  - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above for that question.
  - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no **penalty** for that question.

**DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO**

**SEAL**



000022



1. Cannabinoids are class of compounds derived from \_\_\_\_\_
  - A) Terpenes and Phenol
  - B) Alkaloids
  - C) Glycosides
  - D) Flavonoids
  
2. \_\_\_\_\_ is a series of document that tracks the location of the evidence from collection to final disposition i.e. court
  - A) Questioned Document
  - B) Written Documents
  - C) Specimen Document
  - D) Chain of custody
  
3. Marijuana is the common name for the plant \_\_\_\_\_
  - A) Papaversomniferum
  - B) Erthoxylum cocoa
  - C) Cannabis sativa
  - D) Catha edulis
  
4. LSD, PCP and GHB are categorized as \_\_\_\_\_ drug
  - A) Schedule I
  - B) Schedule II
  - C) Schedule III
  - D) Schedule IV
  
5. The author of the book entitled "Forensic Chemistry " is
  - A) A.S. Osborn
  - B) Suzanne Bell
  - C) Ordway Hilton
  - D) R.A. Huber
  
6. NDPS act was established in the year \_\_\_\_\_
  - A) 24<sup>th</sup> November 1985
  - B) 4<sup>th</sup> November 1985
  - C) 14<sup>th</sup> November 1985
  - D) 31<sup>st</sup> November 1985



7. The street name of methamphetamine is \_\_\_\_\_  
A) Speed  
B) Meth  
C) Crystal  
D) All of the above
8. Compounds with the same molecular formula that are non-super impossible mirror images of one another are called \_\_\_\_\_  
A) Designer drug  
B) Analogs  
C) Isomers  
D) Enantiomers
9. Give an example of a hypnotic drug \_\_\_\_\_  
A) Heroin  
B) Barbiturate  
C) Cocaine  
D) Methaqualone
10. \_\_\_\_\_ is the need to ingest progressively larger amount of drug to maintain a desired effect.  
A) Tolerance  
B) Dependence  
C) Both (A) & (B)  
D) None of the above
11. \_\_\_\_\_ is a precursor to barbiturates:  
A) Barbituric acid  
B) Acetic acid  
C) Perchloric acid  
D) Phosphoric acid
12. The alkaloids present in opium are \_\_\_\_\_  
A) Heroin  
B) Morphine  
C) Tramadol  
D) Oxytocin



13. ASTM stands for \_\_\_\_\_
- A) American Society of Testing Material
  - B) Australian Society of Testing Material
  - C) African Society of Testing Material
  - D) American Society of Testing Management
14. Solutions are \_\_\_\_\_ mixtures containing two or more substances
- A) Heterogeneous
  - B) Multiple
  - C) Homogeneous
  - D) Simple
15. Solubility increases with \_\_\_\_\_ in temperature
- A) Increase
  - B) Decrease
  - C) Remains neutral
  - D) None of the above
16. Heroin is typically \_\_\_\_\_
- A) Crystalline
  - B) Amorphous
  - C) Rosettes
  - D) Rods
17. Diacetylmorphine is synthetically derived from \_\_\_\_\_
- A) Morphine
  - B) Mescaline
  - C) Psilocin
  - D) Cathine
18. The Golden triangle for drug trafficking includes \_\_\_\_\_
- A) Myanmar, Thailand and Laos
  - B) Thailand, Cambodia, Sri Lanka
  - C) Laos, Myanmar, Bangladesh
  - D) None of the above



19. Golden Crescent Countries involved in drug trafficking are \_\_\_\_\_
- A) Pakistan, Iran and Afganistan
  - B) Pakistan, Uzbekistan and Bangladesh
  - C) Bangladesh, Mayanmar and China
  - D) All the above
20. Cocaine comes mainly from \_\_\_\_\_
- A) Peru
  - B) Bolivia
  - C) Columbia
  - D) All of the above
21. Microcrystalline is a \_\_\_\_\_ technique
- A) Confirmatory
  - B) Non-Confirmatory
  - C) Preliminary
  - D) None of the above
22. The trade name of diazepam is \_\_\_\_\_
- A) Atorvastatin
  - B) Gardinal
  - C) Both A & B
  - D) Valium
23. Marquis Test is used for the identification of \_\_\_\_\_
- A) Amphetamine
  - B) Mescaline
  - C) Methamphetamine
  - D) All of the above
24. Van Urk test is used to identify \_\_\_\_\_
- A) Cannabis
  - B) LSD
  - C) Morphine
  - D) Heroin



25. The active constituents present in Cannabis are \_\_\_\_\_
- A) Cannabinol
  - B) Cannabidiol
  - C) Delta 9 THC
  - D) All of the above
26. Cystolith hair is a characteristic feature found in \_\_\_\_\_ leaf
- A) Ephidra
  - B) Khat
  - C) Coca
  - D) Cannabis
27. Peyote is a \_\_\_\_\_
- A) Cactus
  - B) Herb
  - C) Shrub
  - D) Tree
28. Rock based cocaine is called \_\_\_\_\_
- A) Crack
  - B) Downers
  - C) Angel Dust
  - D) Dot
29. Coedine is used as \_\_\_\_\_
- A) Cough Depressent
  - B) Stimulant
  - C) Tranquilizer
  - D) None of the above
30. Based on origin narcotic drug can be classified as \_\_\_\_\_
- A) Natural
  - B) Synthetic
  - C) Semisynthetic
  - D) All of the above



31. NSAIDS refers to \_\_\_\_\_
- A) Non-Steroidal anti- inflammatory drugs
  - B) Non-Sticky anti-inflammatory drugs
  - C) Non-Steroidal inflammatory drugs
  - D) All of the above
32. Morphine binds to \_\_\_\_\_ receptors
- A) Opioid
  - B) GABA
  - C) Cells
  - D) None of the above
33. Cocaine can block the absorption of \_\_\_\_\_
- A) Dopamine
  - B) Serotonin
  - C) Norepinephrine
  - D) All of the above
34. \_\_\_\_\_ is a date rape drug.
- A) GHB
  - B) Rohypnol
  - C) Ketamine
  - D) All of the above
35. Chemical Diversion and trafficking act was passed in the year.
- A) 1975
  - B) 1988
  - C) 1995
  - D) 1930
36. FTIR can be used to identify \_\_\_\_\_ form of narcotic drug.
- A) Powder
  - B) Liquid
  - C) Herbal
  - D) All of the above



37. The metabolite of heroin is \_\_\_\_\_.  
A) Diamorphine  
B) 6-monoacetylmorphine  
C) Diacetylmorphine  
D) None of the above
38. Psilocybesemilanceata are also known as \_\_\_\_\_.  
A) Magical mushrooms  
B) Edible mushroom  
C) Toxic mushrooms  
D) None of the above
39. \_\_\_\_\_ is the study of drugs and medicine.  
A) Toxicology  
B) Narcotics  
C) Pharmacology  
D) Pharmacognosics
40. The confirmatory test for the presence of cannabis is \_\_\_\_\_.  
A) Duquenois Levine Test  
B) Marquis test  
C) Mecke's test  
D) Erhlich's test
41. \_\_\_\_\_ is the study of interaction of matter with electromagnetic radiation.  
A) Spectroscopy  
B) Chemistry  
C) Spectra  
D) None of the above
42. FTIR can be used for \_\_\_\_\_ analysis.  
A) Qualitative  
B) Quantitative  
C) Both A & B  
D) None of the above



43. \_\_\_\_\_ are the fundamental building blocks of all matter.
- A) Elements
  - B) Compounds
  - C) Mass
  - D) Weight
44. A solution of silver nitrate will produce \_\_\_\_\_ precipitate in presence of iodide ions.
- A) Yellow
  - B) White
  - C) Blue
  - D) Red
45. An example of chemical properties \_\_\_\_\_
- A) Rusting of iron
  - B) Silver can tarnish
  - C) Paper burning
  - D) All of the above
46. The outer most electrons are called \_\_\_\_\_ electrons.
- A) Valence
  - B) Positive
  - C) Neutral
  - D) Negative
47. What is corpus delicti.
- A) Body of crime
  - B) Dead Body
  - C) Physical evidence
  - D) None of the above
48. While making the sketch which direction is kept on the top \_\_\_\_\_.
- A) North
  - B) East
  - C) West
  - D) South



49. The most common pattern of fire found at the crime scene is \_\_\_\_\_.  
A) V shape  
B) A shape  
C) B shape  
D) D shape
50. The frequency of occurrence of an event is called \_\_\_\_\_.  
A) Probability  
B) Mean  
C) Median  
D) Mode
51. The finished sketch of a crime scene should represent.  
A) Actual distance  
B) Object  
C) Evidences  
D) All of the above
52. The value of physical evidences is expressed in terms of.  
A) Probative value  
B) Physical value  
C) Measurement value  
D) None of the above
53. Reconstruction of a crime scene is based on the basis of \_\_\_\_\_.  
A) Data collection from the lab  
B) Data collection from the victim  
C) Data collection from the suspect  
D) All of the above
54. The sketching method useful to show the relationship between evidence on floor and the wall is \_\_\_\_\_.  
A) Cross projection  
B) Polar method  
C) Triangular method  
D) None of the above
55. Which method is best for collection of hair and fibre from the surface.  
A) Vacuuming Method  
B) Tape Lifting Method  
C) Swabbing  
D) Scraping



56. Cooky bags are used to collect \_\_\_\_\_.
- A) Vapor samples
  - B) Gadgets
  - C) Soil samples
  - D) Fingerprints
57. Detonators can be packed in \_\_\_\_\_.
- A) Anti-static Bag
  - B) Plastic Bag
  - C) Jute Bag
  - D) Paper Bag
58. Fires can be \_\_\_\_\_.
- A) Natural
  - B) Accidental
  - C) Arson
  - D) All of the above
59. Evidence associated with a group is said to have \_\_\_\_\_ characteristics.
- A) Class characteristics
  - B) Individual characteristics
  - C) Similar characteristics
  - D) Differential characteristics
60. The different methods of documentation of crime scene are \_\_\_\_\_.
- A) Note Making
  - B) Photography
  - C) Videography
  - D) All of the above



61. The examination of the evidence from the crime scene often requires comparison with \_\_\_\_\_.
- A) Standards
  - B) Reference sample
  - C) Substrate Controls
  - D) All of the above
62. Biological evidences like blood if wet in condition should be \_\_\_\_\_ and then packed.
- A) Natural dried
  - B) Sun dried
  - C) Air dried
  - D) Oven dried
63. If the seal is not available the packaged evidence can be stapled. True or False.
- A) True
  - B) False
  - C) Inconclusive
  - D) None of the above
64. \_\_\_\_\_ can be used to package arson evidence.
- A) Polythene containers
  - B) Polythene bags
  - C) Air tight cans
  - D) None of the above
65. Napoleon used killed due to \_\_\_\_\_.
- A) Cancer
  - B) Arsenic Poisoning
  - C) Covid
  - D) Diarrhoea
66. A device for isolating individual wavelengths or frequencies of light is called \_\_\_\_\_.
- A) Densitometer
  - B) Refractometer
  - C) Viscometer
  - D) Monochromator



67. A compound capable of accepting a hydrogen ion ( $H^+$ ) is called \_\_\_\_\_.  
A) Acid  
B) Base  
C) Neutral  
D) Both A & B
68. The most common screening techniques for Narcotic Drugs is \_\_\_\_\_.  
A) Immunoassay  
B) TLC  
C) GC-MS  
D) All of the above
69. \_\_\_\_\_ is used as an anticoagulant in blood.  
A) EDTA  
B) Potassium Oxalate  
C) Both A & B  
D) Sodium Fluoride
70. Psychological dependence of Morphine and Heroin is \_\_\_\_\_.  
A) High  
B) Low  
C) Neutral  
D) None of the above
71. Narcotic drugs are \_\_\_\_\_ and depressants.  
A) Analgesics  
B) Anticancer  
C) Antipyretic  
D) None of the above
72. A group of antianxiety of drugs prescribed to deal with day to day tensions are \_\_\_\_\_.  
A) Xanax  
B) Valium  
C) Both A & B  
D) None



73. An example of synthetic opiate is \_\_\_\_\_.
- A) Methadone
  - B) Morphine
  - C) Codiene
  - D) Heroin
74. Cannabis sativa plant secretes a sticky resin known as \_\_\_\_\_.
- A) Ganja
  - B) Hashish
  - C) Afim
  - D) Weed
75. Spectrophotometry measures the quantity radiation that a particular material absorbs as a function of \_\_\_\_\_.
- A) Wave length or Frequency
  - B) Refractive Index
  - C) Photons
  - D) Mass
76. The color test used to identify cocaine is \_\_\_\_\_.
- A) Marquis test
  - B) Fast Blue B test
  - C) Mecke's test
  - D) Scott's test
77. \_\_\_\_\_ primarily used in veterinary medicine as an animal anesthetic .
- A) Ketamine
  - B) GHB
  - C) Ecstasy
  - D) Diazepam
78. Barbiturates are also called as \_\_\_\_\_.
- A) Downers
  - B) Angel dust
  - C) Rare
  - D) Crack



79. \_\_\_\_\_ is a powerful sedative as well as muscle relaxant.
- A) Methaqualone
  - B) Heroin
  - C) Caffeine
  - D) LSD
80. Hallucinogenic effects of LSD were first described by \_\_\_\_\_.
- A) Albert Hofmann
  - B) Mathew Orifila
  - C) Albert Osborn
  - D) Karl Landsteiner
81. The time required for a component to emerge from the column from the time of its injection into the column is known as.
- A) Elution Time
  - B) Retention Time
  - C) Detection Time
  - D) None of the above
82. The distance a spot has travelled up a thin layer plate can be assigned a numerical value known as the \_\_\_\_\_.
- A) Theta value
  - B) Zf Value
  - C) Delta value
  - D) Rf Value
83. The anthropometric measurements were started by \_\_\_\_\_.
- A) Alphonse Bertillon
  - B) Henry Faulds
  - C) Edward Henry
  - D) All of the above
84. If there are 10 samples of narcotic drug, how many should be analysed by the laboratory \_\_\_\_\_.
- A) All 10 samples
  - B) 5 samples
  - C) Only one sample
  - D) 8 samples



85. Narcotic drugs at the crime scene can be tested by \_\_\_\_\_.  
A) Portable ATR  
B) Portable NDPS Kit  
C) Immunoassay based Kit  
D) All of the above
86. Explosions can be \_\_\_\_\_.  
A) Mechanical  
B) Chemical  
C) Nuclear  
D) All of the above
87. Barbiturates can be \_\_\_\_\_.  
A) Short acting  
B) Long acting  
C) Very short acting  
D) All of the above
88. The most common solvent used for sniffing drugs is \_\_\_\_\_.  
A) Toluene  
B) Methanol  
C) Hexane  
D) Ethanol
89. The most common method for searching indoor crime scene is \_\_\_\_\_.  
A) Zone  
B) Line  
C) Grid  
D) Spiral
90. Document should generally be forwarded to the scientific examiner in a \_\_\_\_\_.  
A) In a sealed cover  
B) In loose manner  
C) In open cover  
D) Without cover



91. Cannabis can be encountered as \_\_\_\_\_.
- A) Plant
  - B) Hashish oil
  - C) Charas
  - D) All of the Above
92. Drugs that cause marked alterations in mood, attitude, thought process and perceptions are called \_\_\_\_\_.
- A) Hallucinogens
  - B) Stimulants
  - C) Depressants
  - D) Tranquillizers
93. Drugs that have no accepted medical use are placed in schedule \_\_\_\_\_.
- A) I
  - B) II
  - C) III
  - D) IV
94. The united nations convention on Narcotic Drugs and Psychotropic Substance was held in the year \_\_\_\_\_.
- A) 1971
  - B) 1961
  - C) 1951
  - D) 1941
95. The type of samples that can be analysed by FTIR are \_\_\_\_\_.
- A) Solid
  - B) Liquid
  - C) Gases
  - D) All of the above
96. The illicit drugs are synthesized in \_\_\_\_\_ laboratories.
- A) Clandestine
  - B) Pharma
  - C) Drug
  - D) Food



97. \_\_\_\_\_ Is the average deviation from the mean and measures the spread of the data.
- A) Standard Deviation
  - B) Gaussian curve
  - C) Mean
  - D) Mode
98. The concentration at which no significant response can be detected is the \_\_\_\_\_.
- A) Limit of Detection
  - B) Repeatability
  - C) Robustness
  - D) Linearity
99. The partial pressure of the analyte above a liquid is proportional to its concentration in the liquid. This law is called as \_\_\_\_\_.
- A) Archimedes principle
  - B) Henry's Law
  - C) Newton's Law
  - D) Dalton's Law
100. The concept of distribution, portioning and \_\_\_\_\_ are central to chromatography and chromatographic separations.
- A) Density
  - B) Viscosity
  - C) Temperature
  - D) Relative affinity
101. An organic solvent such as chloroform is added to white powder to selectively extract drugs from diluents such as sugars. This procedure is called \_\_\_\_\_.
- A) Dry Extraction
  - B) Wet Extraction
  - C) Chelation
  - D) Supercritical Extraction
102. The density of chloroform is \_\_\_\_\_ than water.
- A) Less
  - B) Equal
  - C) Very Less
  - D) More



103. Neutral molecules with no significant acid-base character are soluble in organic solvents on the basis of \_\_\_\_\_.  
A) Refractive Index  
B) Flash point  
C) Polarity  
D) Temperature
104. The near IR region lies between \_\_\_\_\_ to \_\_\_\_\_.  
A) 780nm to 2500nm  
B) 200nm to 5000nm  
C) 500 nm to 8000nm  
D) 100nm to 7000nm
105. When scattering occurs, most of the photons are scattered at the same wavelength as the incident radiation and this elastic scattering is called as \_\_\_\_\_.  
A) Thermal scattering  
B) Rayleigh scattering  
C) Water scattering  
D) Spectra scattering
106. The ratio of atoms in the excited state to those in the ground state as a function of temperature and energy gap involved in the transition is described by \_\_\_\_\_.  
A) Gaussian distribution  
B) Binomial distribution  
C) Boltzmann distribution  
D) Thermal distribution
107. The most common type mass spectrometer used in forensic GC-MS system is \_\_\_\_\_.  
A) Quadrapole  
B) Capillary  
C) Dipole  
D) Dipole moment
108. The ionization methods used in GC-MS are \_\_\_\_\_.  
A) Chemical ionization  
B) Electron Impact Ionization  
C) Atmospheric pressure ionization  
D) All of the above



109. The movement of the drug in and out of the body is called as \_\_\_\_\_.  
A) Absorption  
B) Distribution  
C) Pharmacodynamic  
D) Pharmacokinetic
110. The portion of the molecule capable of absorbing a photon is called \_\_\_\_\_.  
A) Chromophore  
B) Autotroph  
C) Chemosphere  
D) Heterotroph
111. When the wavelength of absorption increases, the energy of the light decreases, and shows blue shift. This kind of shift is called \_\_\_\_\_.  
A) Bathochromic shift  
B) Hypsochromic shift  
C) Auxochrome  
D) Chromophore
112. Hexane is a \_\_\_\_\_ type of solvent.  
A) Polar  
B) Non-Polar  
C) Neutral  
D) Very Polar
113. An example of an acidic drug is \_\_\_\_\_.  
A) Aspirin  
B) Barbiturate  
C) Both A & B  
D) None of the above
114. The most common spraying reagent for the basic drug identification is \_\_\_\_\_.  
A) Mercuric Chloride  
B) Potassium Permanganate  
C) Dragendorff  
D) Mercurous nitrate



115. Fast Blue B reagent reacts with CBN and gives \_\_\_\_\_ color.
- A) Purple
  - B) Red
  - C) Green
  - D) Orange
116. Cocaine is a \_\_\_\_\_ type of alkaloid.
- A) Tropane
  - B) Glycoside
  - C) Phenanthrene
  - D) Isoquinoline
117. The nodal agency to deal with Narcotic Drugs investigation in India is \_\_\_\_\_.
- A) Narcotics Control Bureau
  - B) Narcotics Control Bureaucrat
  - C) Narcotics Control Business
  - D) Nagpur Control Bureau
118. The active constituent present in *Catha edulis* is \_\_\_\_\_.
- A) Cathinone
  - B) Cathine
  - C) Both A & B
  - D) Quinine
119. Forensic Chemistry is indexed as which type of journal.
- A) Elsevier
  - B) Oxford
  - C) Taylor and Francis
  - D) None of the above
120. Centre of Excellence For Research and Analysis of Narcotic Drugs and Psychotropic Substances is located in \_\_\_\_\_.
- A) National Forensic Sciences University
  - B) Bundelkhand University
  - C) Delhi University
  - D) University of Bombay
-



# ROUGH WORK



# ROUGH WORK