

Question Booklet Series: **A**

Question Booklet Serial No.

307034

Ph.D. Entrance Test – 2015
Subject: Forensic Science and Criminology
Paper – I

Important: Please consult your Admit Card/Roll No. slip before filling your Roll Number on the Test Booklet and Answer Sheet.

Roll No. *In Figure* *In Words*

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O.M.R. Answer Sheet Serial No.

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Signature of Candidate: _____

Signature of Invigilator: _____

Time: 60 Minutes Number of Questions: 50 Maximum Marks: 50

DO NOT OPEN THE SEAL ON THE BOOKLET UNTIL ASKED TO DO SO.

INSTRUCTIONS:

1. Write your Roll No. on the Questions Booklet and also on the OMR Answer Sheet in the space provided and nowhere else.
2. Enter the Question Booklet Serial No. on the OMR Answer Sheet. Darken the corresponding bubbles with **Black Ball Point/Black Gel Pen**.
3. Do not make any identification mark on the Answer Sheet or Question Booklet.
4. Please check that this Question Booklet contains **50** Questions. In case of any discrepancy, inform the Assistant Superintendent within 10 minutes of the start of Test.
5. Each question has four alternative answer (A,B,C,D) of which only one is correct. For each question, darken only one bubble (A or B or C or D), whichever you think is the correct answer, on the Answer Sheet with **Black Ball Point/Black Gel Pen**. **There shall be no negative marking for wrong answers.**
6. If you do not want to answer a question, leave all the bubbles corresponding to that question blank in the Answer Booklet. No marks will be deducted in such cases.
7. Darken the bubbles in the OMR Answer Sheet according to the Serial No. of the question given in the Question Booklet.
8. If you want to change an already marked answer, erase the shade in the darkened bubble completely.
9. For rough work only the blank sheet at the end of the Question Booklet be used.
10. The Answer Sheet is designed for computer evaluation. Therefore, if you do not follow the instructions given on the Answer Sheet, it may make evaluation by the computer difficult. **Any resultant loss to the candidate on the above account, i.e. not following the instructions completely, shall be of the candidate only.**
11. After the test, hand over the Question Booklet and the Answer Sheet to the Assistant Superintendent on duty.
12. In no case the Answer Sheet, the Question Booklet, or its part or any material copied/noted from this Booklet is to be taken out of the examination hall. Any candidate found doing so would be expelled from the examination.
13. A candidate who creates disturbance of any kind or changes his/her seat or is found in possession of any paper possibly of any assistant or found giving or receiving assistant or found using any other unfair means during the examination will be expelled from the examination by the Centre Superintendent/Observer whose decision shall be final.
14. **Communication equipment such as mobile phones, pager, wireless set, scanner, camera or any electronic/digital gadget etc., is not permitted inside the examination hall. Use of calculators is not allowed**
15. The candidates will not be allowed to leave the Examination Hall/Room before the expiry of the allotted time.

1. Which is related with shotgun alone:
 A) Gun Powder B) Primer C) Projectile D) Wads
2. A computer database containing images of bullets and cartridge cases recovered from scenes or test fired from seized firearms is known by the acronym:
 A) SWGGUN B) NIBIN C) GRC D) IAFIS
3. Chemically erased writing can be restored by treatment with:
 A) Hydrochloric Acid B) Polarised Light
 C) Reflected Light D) Thiocyanic Acid
4. Which of the following would not be an illicit drug:
 A) Aspirin B) Cocaine C) Cannabinoids D) Heroin
5. Drug used for narco Analysis is
 A) Sodium narcole B) Sodium Amylate
 C) Sodium Pentothal D) Scopolamine
6. Currency note paper has security feature such as:
 A) Intaglio B) OVI C) Security thread D) Watermark
7. Starch impregnated with saliva gives
 A) Black appearance B) Blue appearance
 C) Brown appearance D) Red appearance
8. Which chemical is used as anticoagulant for blood
 A) EDTA B) Citrate C) Oxalate D) Fluoride
9. Hair become loose after
 A) 48 hrs of death B) 72 hrs of death
 C) 90 hrs of death D) 3 months of death
10. Last to putrefy in male is
 A) Ureter B) Prostate C) Testes D) Liver
11. Compound air is used to fire
 A) Automatic Pistol B) Revolver C) Air rifle D) Shotgun
12. Death in fresh water in comparison to salt water is
 A) Late B) No difference
 C) Insignificant difference D) Earlier

13. Haemorrhagic spots are found in poisoning by
- A) Arsenic
B) Organophosphorus
C) Thallium
D) Atropine
14. .32 CAL is equivalent to
- A) 6mm
B) 5mm
C) 9mm
D) 8mm
15. A blood stain of 1 mm^2 in area contains approximately DNA content
- A) 20 ngm
B) 2 ngm
C) 100 ngm
D) 200 ngm
16. Pyro-electric Transducer used in FTIR is
- A) Mercury Cadmium Telluride
B) Tryglycine Sulphate
C) Cadmium Sulphate
D) Tryglycine Telluride
17. If one strand of the DNA molecule has the base sequence $5'\text{-AAGG}3'$, what would be the base sequence on the other stand
- A) $3\text{-GCAT-}5'$
B) $3'\text{-AAGG-}5'$
C) $3'\text{-TTCC-}5'$
D) $3'\text{-CCTT-}5'$
18. An example of non-pyrolyzable solid fuel
- A) Charcoal
B) Wood
C) Wax
D) Coal
19. Which preparation technique should one use for fire debris samples containing hydrocarbons of low volatility
- A) Carbon strip absorption
B) Carbon tube absorption
C) Solvent wash
D) Heated head space
20. A club drug that is used in drug facilitated sexual assaults and legally by veterinarians as an animal tranquilizer is called
- A) Mescaline
B) Ketamine
C) Hashish
D) Angel dust
21. Which of the following evidence collection procedure is considered to be the method of "last resort"
- A) Tape lifting
B) Vacuuming
C) Swabbing
D) Scraping
22. Marbling is noticed by:
- A) 18 hrs
B) 36 hrs
C) 48 hrs
D) 24 hrs
23. Which of the following is an example of physical method for developing latent fingerprint
- A) Small particle reagent
B) Cynoacrylate method
C) Tape lift
D) Super glue method

24. If a body has mummified, the digits are brought to normal condition by
- Immersing it in 3% Sodium/Potassium Hydroxide
 - Immersing it in 5% Hydrogen Peroxide
 - Immersing it in 5% Agar Gel
 - Immersing it in 3% Ethanol
25. Injury or disease that penetrates the skin to the dermal papillae level can damage the epidermal ____ layer infrastructure.
- Hyaline
 - Granular
 - Spinous
 - Basal
26. During the identification process the purpose of first level detail is:
- To classify the print
 - To identify ridge flow
 - To narrow the number of possible donors
 - Determine automatability
27. In an aircrash case, the following method of survey is most useful
- Strip method
 - Spiral method
 - Zonal method
 - Wheel method
28. Chromatography was first reported by
- Ramsey
 - Henry
 - Pascal
 - Leduc
29. Match the following:
- | | |
|---------------------------|--------------------------------|
| List -I Firearm | List -II Trigger pull in pound |
| a) Ordinary shot gun | i) 3½ to 4½ pound |
| b) Pistol | ii) 3-4 pound |
| c) Revolver Double Action | iii) 16- 20 pound |
| d) Service Rifle | iv) 6- 7 pound |
- Codes:
- | | a | b | c | d |
|----|-----|----|-----|-----|
| A) | i | ii | iii | iv |
| B) | i | iv | ii | iii |
| C) | iii | iv | i | ii |
| D) | ii | i | iv | iii |
30. Taggants in ink are
- Pigment
 - Vehicle
 - Binders
 - Compounds used as markers to identify ink

31. Skull photo superimposition technique was used for the first time in which of the following cases?
- A) Daubert case
B) Ted Bundy case
C) Ruxton case
D) Frye case
32. Which of the following is not classified as Hallucinogen?
- A) Methaqualone
B) Psilocybin
C) Marijuana
D) Mescaline
33. Hydrocyanic acid is tested by which of the following methods :
- A) Ferric Chloride test
B) Libermann's test
C) Nessler's reagent test
D) Prussian Blue test
34. The book entitled "Hatcher's Notebook" is related to
- A) Forensic Toxicology
B) Forensic Ballistics
C) Forensic Medicine
D) Forensic Psychiatry
35. Electrode less Discharge Lamp (EDL) is used in
- A) Atomic Absorption Spectrometer
B) Atomic Emission Spectrometer
C) Infra-red Spectrometer
D) X-ray Fluorescence Spectrometer
36. Joule burn is seen in burns due to
- A) Moist Heat
B) Wet Heat
C) Electrocution
D) Frost Bite
37. Smokeless gun powder is
- A) Potassium nitrate, Sulphur and Charcoal
B) Nitrocellulose and Nitroglycerine
C) Nitrocellulose, Sulphur and Charcoal
D) Potassium nitrate, Sulphur and Nitroglycerine
38. Snap haunt is a following weapon
- A) Match lock
B) Flint lock muzzle loader
C) Wheel lock
D) Percussion Lock
39. Who is credited with first criminal identification through the use of fingerprints?
- A) W. Osterberg O'Hara
B) E. R. Henry
C) Juan Vucentic
D) Francis Galton
40. Main ingredients of Mandrax is
- A) Methaqualone
B) Anthraquinone
C) Tetrahydrocannabinol
D) Phencyclidine

41. Choose the odd one out

- A) Bolometer
- B) Golay detector
- C) Thermocouples
- D) FID

42. Choose the odd one out

- A) Juan Vucentic
- B) Johannes Evangelist Purkinje
- C) W. Osterberg O'Hara
- D) Francis Galton

43. Which among the following is defined as "All nature made things have unlimited and infinite variation of forms"

- A) Locard's Principle
- B) Quetelet's Rule
- C) Casper's Dictum
- D) Me Naughten's Rule

44. Fingerprint examination is associated with

- i) Galton (ii) E.R Henry (iii) Hans Gross (iv) Heindel (v) Malpighi
- A) All are correct
- B) (i), (ii), (iii) and (iv) are correct
- C) (i), (ii), (iv) and (v) are correct
- D) (ii), (iii), (iv) and (v) are correct

45. NAA was discovered in 1936 by:

- A) Henry & Lee
- B) Hevery & Levi
- C) Chadwick
- D) Rontgen

46. What TAPPI stands for

- A) The Association of Pulp & Paper Industry
- B) The Association of Police Protection Inc.
- C) Technical Association of the Pulp & Paper Industry
- D) Technical Association of Power Point Imaging

47. Fake currency note is admissible as evidence in court under

- A) IEA293
- B) IPC292
- C) CrPC 292
- D) IPC 293

48. What is used in Maltov Cocktail?

- A) Lead Azide
- B) Mercury Fulminate
- C) Valine
- D) Gasolin

49. Melting point of the Nyril Fiber is _____ °C

- A) 281
- B) 218
- C) 128
- D) 270

50. Nails and hairs are commonly preserved in:

- A) Acute Arsenic Poisoning
- B) Acute lead poisoning
- C) Chronic Arsenic Poisoning
- D) All of the above

x-x-x