



Series

D

OCT-39226

Paper-II

FORENSIC SCIENCE

Question Booklet Serial No.
प्रश्नपत्रिका अनुक्रमांक

Signature and Name of Invigilator

1. (Signature)

(Name)

2. (Signature)

(Name)

Seat No.

(In figures as in Admit Card)

Seat No.

(In words)

OMR Sheet No.

(To be filled by the Candidate)

Time Allowed : 2 Hours]

[Maximum Marks : 200

Number of Pages in this Booklet : 16

Number of Questions in this Booklet : 100

Instructions for the Candidates

- Write your Seat No. and OMR Sheet No. in the space provided on the top of this page.
- This paper consists of **100** objective type questions. **Each** question will carry **two** marks. **All** questions of Paper II will be **compulsory**.
- At the commencement of examination, the question booklet will be given to the student. In the first 5 minutes, you are requested to open the booklet and compulsorily examine it as follows :
 - To have access to the Question Booklet, tear off the paper seal on the edge of this cover page. **Do not accept a booklet without sticker-seal or open booklet.**
 - Tally the number of pages and number of questions in the booklet with the information printed on the cover page. **Faulty booklets due to missing pages/questions or questions repeated or not in serial order or any other discrepancy should not be accepted and correct booklet should be obtained from the invigilator within the period of 5 minutes.** Afterwards, neither the Question Booklet will be replaced nor any extra time will be given. The same may please be noted.
 - After this verification is over, the OMR Sheet Number should be entered on this Test Booklet.
- Each question has four alternative responses marked (A), (B), (C) and (D). You have to darken the circle as indicated below on the correct response against each item.
Example : where (B) is the correct response.

(A) (B) (C) (D)

Following wrong methods should not be used as they are not recognised by scanning machine in digitized assessment. Candidate using such method will be responsible for their loss.

WRONG METHODS

(A) (B) (C) (D) (A) (B) (C) (D) (A) (B) (C) (D) (A) (B) (C) (D)

- Your responses to the items are to be indicated in the OMR Sheet given inside the Booklet only. If you mark at any place other than in the circle in the OMR Sheet, it will not be evaluated.
- Read instructions given inside carefully.
- Rough Work is to be done at the end of this booklet.
- If you write your Name, Seat Number, Phone Number or put any mark on any part of the OMR Sheet, except for the space allotted for the relevant entries, which may disclose your identity, or use abusive language or employ any other unfair means, you will render yourself liable to disqualification.
- You have to return original OMR Sheet to the invigilator at the end of the examination compulsorily and must not carry it with you outside the Examination Hall. You are, however, allowed to carry the Test Booklet and duplicate copy of OMR Sheet on conclusion of examination.
- Use only Blue/Black Ball point pen.**
- Use of any calculator or log table, etc., is prohibited.
- There is no negative marking for incorrect answers.

विद्यार्थ्यासाठी महत्वाच्या सूचना

- परीक्षार्थींनी आपला आसन क्रमांक या पृष्ठावरील वरच्या कोपऱ्यात लिहावा. तसेच आपणास दिलेल्या OMR उत्तरपत्रिकेचा क्रमांक त्याखाली लिहावा.
- सदर प्रश्नपत्रिकेत **100** बहुविकल्प प्रश्न आहेत. प्रत्येक प्रश्नास **दोन** गुण आहेत. या प्रश्नपत्रिकेतील **सर्व** प्रश्न सोडविणे अनिवार्य आहे.
- परीक्षा सुरु झाल्यावर विद्यार्थ्याला प्रश्नपत्रिका दिली जाईल. सुरुवातीच्या 5 मिनिटांमध्ये आपण सदर प्रश्नपत्रिका उघडून खालील बाबी अवश्य तपासून घ्याव्यात :
 - प्रश्नपत्रिका उघडण्यासाठी प्रश्नपत्रिकेवर लावलेले सील उघडावे. **स्टीकर सील नसलेली किंवा सील उघडलेली प्रश्नपत्रिका स्वीकारू नये.**
 - पहिल्या पृष्ठावर नमूद केल्याप्रमाणे प्रश्नपत्रिकेची एकूण पृष्ठे तसेच प्रश्नपत्रिकेतील एकूण प्रश्नांची संख्या पडताळून घ्यावी. **पृष्ठे कमी असलेली/कमी प्रश्न असलेली/प्रश्नांचा चुकीचा क्रम असलेली किंवा इतर त्रुटी असलेली सदोष प्रश्नपत्रिका सुरुवातीच्या 5 मिनिटातच पर्यवेक्षकाला परत देऊन दुसरी प्रश्नपत्रिका मागवून घ्यावी.** त्यानंतर प्रश्नपत्रिका बदलून मिळणार नाही तसेच वेळही वाढवून मिळणार नाही याची कृपया नोंद घ्यावी.
 - वरीलप्रमाणे सर्व पडताळून पाहिल्यानंतरच प्रश्नपत्रिकेवर ओ.एम.आर. उत्तरपत्रिकेचा क्रमांक लिहावा.
- प्रत्येक प्रश्नासाठी (A), (B), (C) आणि (D) अशी चार विकल्प उत्तरे दिली आहेत. त्यातील योग्य उत्तराचा रकाना खाली दर्शविल्याप्रमाणे ठळकपणे काळा/निळा करावा.
उदा. : जर (B) हे योग्य उत्तर असेल तर.

(A) (B) (C) (D)

खालील चुकीच्या पद्धती वापरू नये, कारण डिजिटाइज्ड (Digitized) मूल्यांकनात स्कॅनिंग मशीन त्यांना ओळखत नाही. त्या पद्धती वापरून नुकसान झाल्यास त्यास विद्यार्थीच जबाबदार असतील.

चुकीची पद्धती

(A) (B) (C) (D) (A) (B) (C) (D) (A) (B) (C) (D) (A) (B) (C) (D)

- या प्रश्नपत्रिकेतील प्रश्नांची उत्तरे ओ.एम.आर. उत्तरपत्रिकेतच दर्शवावीत. इतर ठिकाणी लिहिलेली उत्तरे तपासली जाणार नाहीत.
- आत दिलेल्या सूचना काळजीपूर्वक वाचाव्यात.
- प्रश्नपत्रिकेच्या शेवटी जोडलेल्या कोऱ्या पानावरच कच्चे काम करावे.
- जर आपण ओ.एम.आर. उत्तरपत्रिकेवर नमूद केलेल्या ठिकाणाव्यतिरिक्त इतर कोठेही नाव, आसन क्रमांक, फोन नंबर किंवा ओळख पटेल अशी कोणतीही खूण केलेली आढळून आल्यास अथवा असंभ्य भाषेचा वापर किंवा इतर गैरमार्गांचा अवलंब केल्यास विद्यार्थ्याला परीक्षेस अपात्र ठरविण्यात येईल.
- परीक्षा संपल्यानंतर विद्यार्थ्याने मूळ ओ.एम.आर. उत्तरपत्रिका पर्यवेक्षकांकडे परत करणे आवश्यक आहे. तथापि, प्रश्नपत्रिका व ओ.एम.आर. उत्तरपत्रिकेची द्वितीय प्रत आपल्याबरोबर नेण्यास विद्यार्थ्यांना परवानगी आहे.
- फक्त निळ्या किंवा काळ्या बॉल पेनचाच वापर करावा.**
- कॅलक्युलेटर किंवा लॉग टेबल वापरण्यास परवानगी नाही.
- चुकीच्या उत्तरासाठी गुण कपात केली जाणार नाही.



OCT-39226-D



Forensic Science

Paper II

Time Allowed : 120 Minutes]

[Maximum Marks : 200

Note : This Paper contains **Hundred (100)** multiple choice questions. Each question carrying **Two (2)** marks. Attempt *All* questions.

1. Most common bullets used for revolvers are
 - (A) Boat-tailed bullets
 - (B) Streamlined bullets
 - (C) Dum-dum bullets
 - (D) Lead alloy bullets
2. 'Arquebus' and 'Harquebus' are the example of which type of firearms ?
 - (A) Match lock
 - (B) Serpentine
 - (C) Pistallo
 - (D) Wheel lock
3. Sodium rhodizonate test is used to detect the presence of which of the following in the gunshot residue ?
 - (A) Nitrate
 - (B) Nitrite
 - (C) Barium and lead
 - (D) Antimony
4. Which of the following term define the divergence of pellets from the axis of the wound channel caused by collisions between pellets in a shot string as they move into and through tissue or organs ?
 - (A) Bullet wipe
 - (B) Billiard Ball effect
 - (C) Ecchymosis
 - (D) Bullet Embolus

5. What is the full form of IBIS ?
 - (A) Integrated Ballistic Information System
 - (B) Integrated Ballistic Identification System
 - (C) International Ballistic Information System
 - (D) International Ballistic Identification System
6. Which of the following are the advantages of size-exclusion chromatography procedure ?
 - a. Short and well-defined separation time
 - b. Narrow bands
 - c. Freedom from sample loss
 - d. Applicability to sample of smaller size

Choose the correct answer from the options given below.

 - (A) a, b and c only
 - (B) b, c and d only
 - (C) a, c and d only
 - (D) a, b and d only



7. Which of the following is correct regarding reverse phase chromatography ?
- Stationary phase is polar
 - Stationary phase is non polar
 - Most polar component elutes first
 - Least polar component elutes first
- Choose the correct answer from the options given below :
- a and b only
 - b and c only
 - c and d only
 - d and a only
8. The variance of chromatographic bands per unit length of a column is better known as
- Band broadening
 - Plate height
 - Plate Count
 - Mass transfer rate
9. 2-D Thin layer chromatography is commonly used for the separation of
- Ink
 - Pigment
 - Amino acids
 - Dye
10. Slew-scan spectrometers is which of the following types of Atomic Emission Spectro photometer ?
- Sequential
 - Simultaneous multichannel
 - Fourier transform based
 - Simultaneous tetra channel
11. In case of determining sequence of strokes over folds, which of the following is an indicative that the ink line is pre-existing and fold was made subsequently ?
- Broadening of ink line
 - Feathering of ink around fold
 - Clean break of ink line
 - Feathering of ink around line
12. The signature which is scanned and printed with colour printer to make it appear as original, can be detected by which of the following ?
- Presence of C, M, Y dots in the vicinity
 - Indentation on the back side of the paper
 - Pattern of paper from which the signature was taken
 - Microscopic examination of stroke
- Choose the correct answer from the options given below :
- a, b and c only
 - a, c and d only
 - a, b and d only
 - b, c and d only
13. The approach that focuses on dating document using dates of production of the document constituents
- Dynamic approach
 - Supplementary approach
 - Static approach
 - Basic approach



14. Ballpoint pen can be differentiated from one another by which of the following defects ?

- a. Gooping
- b. Skipping or short gaps
- c. Striations within the stroke
- d. Feathering

Choose the correct answer from the options given below :

- (A) a, b and c only
- (B) a, c and d only
- (C) a, b and d only
- (D) b, c and d only

15. Which of the following ASTM guidelines is related to the examination of altered documents ?

- (A) E 2388
- (B) E 2331
- (C) E 2288
- (D) E 2195

16. Which of the following chemicals are used in trap cases ?

- a. Phenolphthalein
- b. Anthracene
- c. Rhodamine b
- d. Methylene yellow

Choose the correct answer from the option given below.

- (A) a, b and c only
- (B) b, c and d only
- (C) c, d and a only
- (D) a, b and d only

17. Which of the following is most commonly used in drug facilitated sexual assault ?

- (A) Cannabis
- (B) Opium
- (C) Benzodiazepines
- (D) Hash

18. Which of the following was the first commercially available benzodiazepine ?

- (A) Clonazepam
- (B) Chlordiazepoxide
- (C) Diazepam
- (D) Alprazolam

19. Which of the following toxalbumin is similar to viperine snake venom ?

- (A) Ricin
- (B) Croton
- (C) Abrin
- (D) Digitalis

20. Atropa belladonna is

- (A) Animal poison
- (B) Microbial poison
- (C) Plant poison
- (D) Synthetic poison

21. Harvesting of organs for transplantation is best done under which of the following ?

- (A) Intravital period
- (B) Intervital period
- (C) Vital period
- (D) Supravital period



22. In a putrefying body greenish brown staining of superficial veins is known as
(A) Marbling
(B) Gangrene
(C) Adipocere
(D) Mummification
23. The most common insects to reach a body after death are
(A) Blowflies
(B) Flesh flies
(C) Ants
(D) Butterflies
24. In which of the following medical condition the affected individual has only one X chromosome and no Y chromosome ?
(A) Klinefelter's syndrome
(B) Turner's syndrome
(C) Cushing's syndrome
(D) Down's syndrome
25. As per Krogman's degree of accuracy in sex determination of adult skeleton remains, maximum accuracy is obtained from the single bone
(A) Skull
(B) Sacrum
(C) Pelvis
(D) Long bones
26. Computerized fingerprints search systems match points by comparing
(A) Bifurcations present
(B) Ridge endings
(C) Both bifurcations and ridge endings
(D) Dots present only
27. Which of the following is a tire mark that occurs from rapid deflation of a tire on the revolving wheel rim ?
(A) Flat tire mark
(B) Skid mark
(C) Acceleration mark
(D) Yaw mark
28. PC-CRASH is an example of
(A) Computer program for identification of fired bullet
(B) Computer program for identification of explosive remnant
(C) Computer program for reconstruction of road accident
(D) Computer program for reconstruction of damaged hard disk
29. Which of the following methods are used for fixing the iodine-developed fingerprint ?
a. Starch spray
b. Benzoflavone reagents
c. Silver plate transfer
d. Tribase solution
Choose the correct answer from the options given below :
(A) a, b and c only
(B) a, b and d only
(C) a, c and d only
(D) b, c and d only



30. Which of the following fingerprint development techniques are based on the reaction from amino acid ?

- a. Ninhydrin
- b. DFO
- c. VMD
- d. Iodine fuming

Choose the correct answer from the options given below :

- (A) a and b only
- (B) a and c only
- (C) b and d only
- (D) c and d only

31. The idea of using lip prints for identification was first suggested by

- (A) Le Moyne Snyder
- (B) K. Suzuki
- (C) Y. Tsuchihashi
- (D) Suzuki and Tsuchihashi

32. The presence of maggots at postmortem indicates

- (A) Mode of death
- (B) Cause of death
- (C) Posture of body at death
- (D) Duration since death

33. The Asthenospermic individual has

- (A) The sperm count is below the normal number
- (B) The sperms are dead
- (C) No sperm is present
- (D) Sperms are non-mobile/zero sperm mobility

34. Which of the following is the component of Kastle-Meyer reagent test ?

- a. NaOH
- b. Zinc dust
- c. Phenolphthalein
- d. Glacial acetic acid

Choose the correct answer from the options given below.

- (A) a, b and c only
- (B) a, b and d only
- (C) a, c and d only
- (D) b, c and d only

35. Short tandem repeats normally consist of repeating sequences of approximately how many bases ?

- (A) 10 – 13
- (B) 2 – 6
- (C) 14 – 17
- (D) 1 – 2

36. The minimum temperature at which a liquid fuel produces enough vapour to burn

- (A) Flash back
- (B) Flash point
- (C) Flash over
- (D) Roll over

37. The full form of PETN is

- (A) Pentaerythritoltetranitrate
- (B) Pentaethylenetetranitrite
- (C) Pentaerythritoltetranitrite
- (D) Pentaethylenetetranitrate



38. What is the density of typical standard petrol at 15°C ?
(A) 830 – 860 kg/m³
(B) 780 – 860 kg/m³
(C) 710 – 770 kg/m³
(D) 820 – 890 kg/m³
39. What is the full form of ABFO scale ?
(A) American Board of Forensic Odontology
(B) American Bureau of Forensic Odontology
(C) American Board of Forensic Optometry
(D) American Bureau of Odontology
40. The following is sometimes referred to as the aperture of a lens or the diaphragm opening of the lens
(A) E/stop
(B) A/stop
(C) D/stop
(D) F/stop
41. In Neutron Activation Analysis, the ratio of the amount activity produced during the irradiation period to that produced in infinite time is better known as
(A) Decay factor
(B) Activation factor
(C) Saturation factor
(D) Irradiation factor
42. X-ray emission spectra of Fe is dependent on
(A) Chemical composition
(B) Physical state
(C) Atomic number
(D) Atomic weight
43. A linear wavenumber scale is usually preferred in IR spectroscopy because of
(A) Direct proportionality with frequency
(B) Direct proportionality with wavelength
(C) Indirect proportionality with power required
(D) Indirect proportionality with the transmittance
44. The normal viewing using eyepiece in a field plane of the microscope is also known as
(A) Conoscopic mode
(B) Orthoscopic mode
(C) Diffraction mode
(D) Aperture mode
45. Which of the following elements can be identified using electron microscopy ?
a. Nitrogen
b. Hydrogen
c. Sulfur
d. Helium
Choose the correct answer from the options given below.
(A) a and b only
(B) b and c only
(C) a and c only
(D) b and d only



46. Which of the following fibres are extracted from seedpod ?

- a. Cotton
- b. Kapok
- c. Nemo
- d. Coir

Choose the correct answer from the options given below.

- (A) a, b and c only
- (B) a, c and d only
- (C) a, b and d only
- (D) b, c and d only

47. Multiserial ladder and wide Arciform lattice are the type of

- (A) Medulla
- (B) Cortex
- (C) Cuticle
- (D) Keratin

48. Glass refractive index measuring equipment is basically a

- (A) Polarized microscope
- (B) Phase-contrast microscope
- (C) Compound microscope
- (D) Fluorescence microscope

49. Soils that are essentially under strong human influence in urban and suburban areas is better known as

- (A) Anthropogenic soils
- (B) Pedological soils
- (C) Petrographical soils
- (D) Hematite soils

50. Which of the following is animal pollinated plant ?

- (A) Entomophilous
- (B) Gymnosperms
- (C) Angiosperms
- (D) Andosperms

51. Who designed one of the world's most famous automatic rifle, the AK-47 ?

- (A) Augusta Kalashnikov
- (B) Victor Kalashnikov
- (C) Mikhail Kalashnikov
- (D) Alfred Kalashnikov

52. The process of shooting bullets coated with a fine abrasive substance in order to remove toolmarks from the barrel and increase the accuracy of the firearm is known as

- (A) Fire train
- (B) Fire forming
- (C) Firelapping
- (D) Flare

53. The discharge of a loaded firearm as a result of an impact after being dropped is known as

- (A) Draw fire
- (B) Drop fire
- (C) Dry fire
- (D) Drift fire

54. Tandem Bullet is also called as

- (A) Explosive bullet
- (B) Dumdum bullet
- (C) Piggyback bullet
- (D) Fragile bullet



55. Who invented the first smokeless (gun) powder ?
(A) Calvin Goddard
(B) L. H. Oswald
(C) Paul Vieille
(D) James Nathan
56. Which of the following is used for the enhanced preservation of the DNA samples obtained from scene of a crime ?
(A) Cotton swabs
(B) Cotton pads
(C) Glass bottle
(D) Flinders Technology Associates Cards
57. The form where the details of each photograph taken at a crime scene are recorded is known as
(A) Chain of Custody
(B) Station Diary
(C) Notes
(D) Photography Log
58. Who is known as the 'Father of Modern Polygraph' ?
(A) John A. Larson
(B) John A. Carlson
(C) Leonarde Keeler
(D) George Sticker
59. Which Article of the Constitution of India states that "No person accused of any offence shall be compelled to be a witness against himself" ?
(A) Article 21(3)
(B) Article 20(3)
(C) Article 20(2)
(D) Article 21(2)
60. Which of the following States and/or Union Territories are covered under the jurisdiction of Central Forensic Science Laboratory, Hyderabad ?
i. Andhra Pradesh
ii. Tamil Nadu
iii. Lakshadweep
iv. West Bengal
v. Andaman and Nicobar Islands
vi. Daman and Diu
(A) i, ii, v
(B) i, v, vi
(C) i, ii, vi
(D) i, ii, iii
61. "Squash" on the printed document is the characteristic of which of the following printing techniques ?
(A) Gravure
(B) Lithography
(C) Letterpress
(D) LASER
62. In VSC/HS, the capability to analyze a document in a wide spectrum of light at one 80 is known as
(A) Super-resolution imaging
(B) Hyper spectral imaging
(C) 3-D imaging
(D) Optical imaging



63. The handwriting that doesn't appear to be natural but may be natural. The appearance can be due to voluntary or involuntary factors. Such handwriting is known as

- (A) Distorted writing
- (B) Spurious writing
- (C) Accidental writing
- (D) Guided writing

64. Which of the following statements are correct regarding requested writing ?

- a. Normal writing conditions should be arranged.
- b. The material must be dictated to the writer.
- c. Writing instrument and paper should be similar.
- d. The text should be shown to the writer.

Choose the correct answer from the options given below :

- (A) a, b and c only
- (B) a, b and d only
- (C) a, c and d only
- (D) b, c and d only

65. Which of the following are considered as elements of execution ?

- a. Line quality
- b. Line continuity
- c. Arrangement
- d. Alignment

Choose the correct answer from the options given below :

- (A) a, b and c only
- (B) a, b and d only
- (C) a, c and d only
- (D) b, c and d only

66. "Roid rage" refer to

- (A) Aggressive behaviour due to anabolic steroids
- (B) Aggressive behaviour due to LSD
- (C) Aggressive behaviour due to alcohol
- (D) Aggressive behaviour due to methanol

67. Cocaine was isolated from the leaf of

- (A) Cannabis indica
- (B) Cannabis sativa
- (C) Erythroxylum coca
- (D) Marking nut

68. Among the following which drug is known as date rape drug ?

- (A) Alkaloid
- (B) Rohypnol
- (C) Steroid
- (D) Cannabis

69. Which countries among the following are part of the golden crescent ?

- a. Russia
- b. Pakistan
- c. China
- d. Tajikistan

Choose the correct answer from the option given below.

- (A) a, b and c only
- (B) a, c and d only
- (C) a, b and d only
- (D) b, c and d only



70. What is the scientific name of Meow-meow drug ?
(A) Mephedrone
(B) MDMA
(C) Cocaine
(D) Cannabinol
71. Among the following techniques which one is more sensitive for blood group determination from blood stains ?
(A) Absorption - inhibition
(B) Absorption - Elution
(C) Mixed agglutination
(D) Latex agglutination
72. Portions of the DNA molecule useful for DNA typing/profiling
(A) Code for the production of proteins
(B) Are useful for recombinant DNA
(C) Are repeated many times
(D) Are useful for the production of insulin
73. DMAC method is used to show the presence of
(A) Urine stains
(B) Vaginal stains
(C) Blood stains
(D) Faecal stains
74. Which of the following scientist developed a method to transfer latent fingerprints on surfaces to paper using iodine fuming ?
(A) Francis Galton
(B) Paul-Jean Coulier
(C) Behnam Bavarian
(D) William Herschel
75. Sperms contains
(A) Haploid no. of chromosomes
(B) Diploid no. of chromosomes
(C) Triploid no. of chromosomes
(D) Tetraploid no. of chromosomes
76. The Central Forensic Science Laboratory at Pune was started in the year
(A) 1991
(B) 2011
(C) 2018
(D) 2014
77. Which of the following is a Court of records ?
(A) Subordinate Court
(B) District Court
(C) Supreme Court
(D) Metropolitan Magistrate Court
78. The pattern created by the bloodstains when the blood is blown or thrown away from the blood bearing object in motion is known as which of the following ?
(A) Expirated Pattern
(B) Back Spatter
(C) Impact Spatter
(D) Cast-off Pattern



79. Match the following.

List – I**List – II**

- | | |
|---------------|---|
| a. Article 19 | i. Protection against arrest and detention in certain cases |
| b. Article 20 | ii. Protection of life and personal liberty |
| c. Article 21 | iii. Protection in respect of conviction for offences |
| d. Article 22 | iv. Protection of certain rights regarding freedom of speech etc. |

Codes :

- | | a | b | c | d |
|-----|----------|----------|----------|----------|
| (A) | i | iii | iv | ii |
| (B) | iii | iv | i | ii |
| (C) | iv | iii | ii | i |
| (D) | i | ii | iii | iv |

80. Which of the following term is used to describe the female version of the Oedipus Complex ?

- (A) Pharaonic Incest
- (B) Buggery
- (C) Electra Complex
- (D) Adultery

81. Among the following identify the correct sequence of the closure of suture is

- (A) Metopic, Basal, Sagittal, Temporal
- (B) Basal, Metopic, Temporal, Sagittal
- (C) Metopic, Basal, Temporal, Sagittal
- (D) Basal, Sagittal, Metopic, Temporal

82. Sexual excitation at the sight of urine is known as

- (A) Undinism
- (B) Transvestism
- (C) Masochism
- (D) Exhibitionism

83. Discipline which uses knowledge of all oral structures, like lips, palate and secretions (saliva) for the purpose of law and administration of justice is known as

- (A) Forensic paleontology
- (B) Forensic odontostomatology
- (C) Forensic anthropology
- (D) Forensic palynology

84. Match the following.

Source**Injuries**

- | | |
|----------------|-----------------|
| a. Blunt force | i. Chop wound |
| b. Cold | ii. Contusion |
| c. Sharp force | iii. Scalds |
| d. Heat | iv. Trench foot |

Choose the correct answer from the options given below :

- (A) a – ii, b – iv, c – i, d – iii
- (B) a – i, b – iii, c – ii, d – iv
- (C) a – i, b – ii, c – iii, d – iv
- (D) a – iii, b – iv, c – i, d – ii

85. The rule used to determine sequence of shots when more than one shot have been fired at the cranium using revolver is

- (A) Puppe's rule
- (B) Robert's rule
- (C) Bentham rule
- (D) Lawrence rule



86. What are the additive primaries of light colour ?
(A) Red – Green – Blue
(B) Red – Blue – Cyan
(C) Red – Green – Magenta
(D) Red – Green – Yellow
87. Which among the following surveying method is best for covering the maximum area in open space ?
(A) Close-up photography
(B) Aerial photography
(C) Surveillance photography
(D) High-speed photography
88. Octol is the combination of
(A) RDX + TNT
(B) HMX + TNT
(C) TNT + PETN
(D) RDX + Wax
89. The permanently fixed image, known as the first photograph, was taken by Joseph Nicephore Niepce in
(A) 1824
(B) 1826
(C) 1828
(D) 1830
90. The explosives which is designed by combining these explosives with others in different proportions is known as
(A) Primary explosives
(B) Composite explosives
(C) Combined explosives
(D) Low explosives
91. Daugman's rubber sheet model is used for which of the following stage of iris processing ?
(A) Acquisition
(B) Segmentation
(C) Encoding
(D) Normalization
92. Which of the following are considered as Level-I features in the case of face recognition ?
a. Geometry of the face
b. Global skin colour
c. Relationship between facial components
d. Freckles
Choose the correct answer from the options given below :
(A) a and b only
(B) b and c only
(C) c and d only
(D) d and a only
93. Which of the following are behavioural biometrics ?
a. Odor
b. Lip motion
c. Skin reflectance
d. Key stroke dynamics
Choose the correct answer from the options given below :
(A) a and b only
(B) b and c only
(C) b and d only
(D) c and d only



94. Which of the following speech sound has its source in the vocal tract ?
(A) /i/
(B) /s/
(C) /w/
(D) /m/
95. Which of the following statements are correct ?
a. The first formant frequency is correlated with the degree of mouth opening at the lips
b. The first formant frequency is correlated with the area of the lower portion of the pharyngeal cavity
c. The second formant frequency is correlated with the length of the oral cavity
d. The third formant frequency is correlated to the length of the pharyngeal cavity
Choose the correct answer from the options given below :
(A) a, b and c only
(B) a, b and d only
(C) a, c and d only
(D) b, c and d only
96. A resin which can be made from cross-linkages when baked is better known as
(A) Thermoplastic polymer
(B) Thermosetting polymer
(C) Plasticizer
(D) Enamel
97. The correct sequence of automobile paint coating is
(A) Electrocoat primer, primer surfacer, basecoat, clearcoat
(B) Primer surfacer, electrocoat primer, basecoat, clearcoat
(C) Basecoat, primer surfacer, electrocoat primer, clearcoat
(D) Basecoat, clearcoat, primer surfacer, electrocoat primer
98. Hierarchical file system is used in
(A) Window-based devices
(B) Linux-based devices
(C) Apple devices
(D) Blackberry phones
99. Celebrite and XRY are the commercially available tools to forensically analyze
(A) Mobile phones
(B) Window server
(C) Linux server
(D) Mobile workstation
100. Which of the following ASTM standard covers the determination of portland cement content of a sample of hardened hydraulic-cement concrete ?
(A) C 1084 – 10
(B) C 1085 – 11
(C) C 1086 – 07
(D) C 1089 – 03



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ROUGH WORK

