

(FORENSIC SCIENCE LABORATORY, MAHARASHTRA)

11th Maharashtra State Police Duty Meet-2013

Scientific Aids to Investigation

FORENSIC SCIENCE WRITTEN TEST

CHEST NO :- 343

Place :- Aurangabad

Date :- 25/11/2013

Time :- 1 Hour

Marks:- 50

30 - 2 =

28/50

- N.B. 1) All questions carry equal marks.
2) All questions are compulsory.

Que.1 Select appropriate option and put tick mark (✓) in corresponding brackets.

(10)

1) The following is not a war gas:

- a) Mustard gas ()
- b) Phosgene ()
- c) Chloropicrine ()
- d) Nitrous oxide (✓)

2) Which is not seen in firearm entry wound

- a) Small with regular edge (✓)
- b) No grease collar ()
- c) Margin inverted ()
- d) Burning, snigeing and tattooing present ()

3) Cocaine is

- a) Glycoside ()
- b) Resin ()
- c) Alkaloid (✓)
- d) None of the above ()

4) Which of the following is a smooth bored firearm.

- a) Pistol ()
- b) Muzzle loader (✓)
- c) Revolver ()
- d) Rifle ()

5) "Sukha Sharab " means

- ☒ a) Aconite ()
☒ b) Chloroform (✓)
☐ c) Chloral Hydrate ()
☐ d) Ether ()

6) The following is used in varnish

- ☒ a) Ether (✓)
☐ b) Chloroform ()
☐ c) Methyl Alcohol ()
☐ d) None of above ()

☒ 7) The poison in the mushroom is

- ☐ a) Muscarine (✓)
☐ b) Adrenaline ()
☐ c) Acetyl choline ()
☐ d) Serotonin ()

8) Ricin is a

- ☒ a) Glycoprotein ()
☐ b) Alkaloid ()
☒ c) Amine (✓)
☐ d) Coumarin ()

9) Aspirin is

- ☒ a) Acetyl oxalicylic acid (✓)
☐ b) Acetanilide ()
☐ c) Acetic Anhydride ()
☐ d) None of above. ()

☒ 10) In road vehicle accidents following articles are essentials to sent for Analysis.

- ☐ a) Pieces of glass ()
☐ b) Paint ()
☐ c) Skid marks ()
☒ d) All of above (✓)

Que.2 State " True " or " False " (Do not ✓ (tick) or x (cross))

(10)

- ☒ 1) Sperms may be survive in vagina for about a week of coitus. (X)
- ☒ 2) Sodium Fluoride is used as anticoagulant for blood in DNA profiling. (✓)
- ☒ 3) The common military explosive are RDX, TNT, HMX, PETN and Tetryl. (✓)
- ☒ 4) Dry bones bereft of organic tissues do not give DNA profiles. (✓)
- ☒ 5) The Serologist identifies fake currency notes. (X)
- ☒ 6) Heroin is prepared from morphine (X)
- ☒ 7) In dog bite cases tissue from bite mark should be sent for analysis to Forensic Laboratory. (✓)
- ☒ 8) Botulism is a type of food poisoning. (✓)
- ☒ 9) Zinc Phosphate is used as a rodenticide (rat killer) (✓)
- ☒ 10) Wines does not contain Ethyl Alcohol. (X)

Que.3 Match the following

(10)

GROUP 'A '

- 1) Ballistic ✓
- 2) Aluminium phosphide X
- 3) Gasoline ✓
- 4) Thiopentone X
- 5) LD₅₀ X
- 6) Monocrotophos ✓
- 7) Nitroglycerin ✓
- 8) Blood of 'AB' group ✓
- 9) Semen ✓
- 10) Endosulfan ✓

- (a)
- (f)
- (a)
- (k)
- (h)
- (j)
- (e)
- (c)
- (d)
- (b)

GROUP 'B '

- a) Motor Fuel
- b) Organo chloro Insecticide
- c) No antibody
- d) Spermatozoa
- e) Explosive
- f) Toxicity
- g) Projectile
- h) Narco Analysis
- i) Rat Poison
- j) Organophosphours insecticide
- k) Electricution

Que.4 Find odd man out from the following

(10)

- ☒ 1) a)Hydrochloric Acid b) Sulphuric Acid c) Nitric Acid
d) Citric Acid (d)
- ☒ 2) a) Strangulation b)Starvation c) Lynching
d) Hanging (b)
- ☒ 3) a) Strychnine b) Atropine c) Ricin d) Cypermethrin (—)
- ☒ 4) a) Sodium chloride b) Sodium fluoride c) Sodium Citrate d) Sodium carbonate (d)

34
56

TEST BOOKLET SERIES: A

12th Maharashtra State Police Duty Meet-2014
Scientific Aids to Investigation
Forensic Science Written Test

CHEST NO :- 61

Marks 50

Place :- Mumbai

Date :- 19/12/2014

Time :- 1 Hour

N.B. 1. All questions carry equal marks.

2. All questions are compulsory.

[Select appropriate option and put tick mark (✓)].

1. Forensic Science is:

- ☒ a. Application of scientific methods and techniques for the purpose of justice
- b. Application of scientific methods and techniques for the purpose of law
- c. Application of scientific methods and techniques for police investigation
- d. Application of scientific methods and techniques for criminal investigation

①

2. Arrange the following in the proper order of investigation of crime at the scene of crime:

- a. Collection of clue material
- b. Protection of scene of crime
- c. Packing and labelling
- d. Sketching and photographing of crime scene

②

Choose the correct answer from the codes.

- a. (b),(c),(d),(a)
- ☒ b. (b),(d),(a),(c)
- c. (a),(d),(b),(c)
- d. (d),(b),(c),(a)

①

3. Why is photography the prerequisite in crime scene investigation?

- ☒ a. An unaltered condition
- b. To have it as a record for I.O.
- c. To keep it for future investigation
- d. To convince the court

①

4. Corroborative evidence is:

- a. Evidence that refutes other evidence
- b. Evidence that links an individual with a particular location
- ☒ c. Evidence that supports other evidence
- d. Evidence that associates an individual with another individual

①

5. What do you mean by Hash Value in respect of Computer Forensics?

- a. Mathematical formula that generates a numerical identifier based on input data
- b. If any bit of the input data changes, the output number changes
- ☒ c. Both (a) and (b) are involved
- d. None of the above is correct

①

6. Narco-analysis technique is against which Article of Indian Constitution?

- a. Article 7
- b. Article 21 (3)
- ☒ c. Article 20 (3)
- d. Article 22 (3)

①

7. The device used for measuring brain response in brain fingerprinting is:

- ☒ a. Electroencephalograph
- b. Electroencephalogram
- c. CT Scan
- d. MRI

X

8. Pugmark length or PML is:

- a. The measurement between the outer edges of the first and last toe
- b. The measurement from the tip of the farthest toe to the base of the pad along the line of walk
- ☒ c. Both (a) and (b) are correct
- d. None of the above

X

9. Narco analysis was first done by:

- ☒ a. William Bleckwenn
- b. Charles Darwin
- c. Robert House
- d. Mathew Orfila

①

10. In polygraph application irrelevant questions:

- a. Draw out a stressed response
- ✓ b. Evoke a deceptive response to a question
- c. Establish a base-line of subject's guilty-free reaction
- d. None of the above

11. Which of the following is considered to be an acceptable crime scene search pattern?

- a. A strip search
- b. Spiral search
- c. Quadrant search
- ✓ d. All of these

12. Which of the following regions of mt. DNA is used for species identification?

- a. HV 1
- ✓ b. Cyt b
- c. HV 2
- d. Loop

13. The examination of physical evidence by a forensic scientist is usually undertaken for:

- a. Proving a suspect's innocence in a courtroom
- ✓ b. Proving a suspect's guilty in a courtroom
- c. Identification or comparison purposes
- d. Assisting law enforcement in the apprehension of an offender

14. Computer forensics involves all of the following stated activities *except*:

- ✓ a. Manipulation of computer data
- b. Interpretation of computer data
- c. Presentation of computer data
- d. Extraction of computer data

15. The forensic examination or analysis of static data (stored) is often called:

- ✓ a. Computer forensics
- b. Media forensics
- c. Media analysis
- d. All of these

16. According to the analysis of digital evidence, what should be the best practice?

- a. Forensic examination performances directly
- b. Design an examination process
- ☒ c. Create one or more duplicates of the original evidences
- d. The documentation and data reduction steps

①

17. The analysis of the digital evidence comprise phases:

- a. Documentation
- b. Data recovery
- c. Data reduction and extraction
- ☒ d. All of the above

①

18. The process of use of standards and controls for digital evidence is substantially different than those used in other forensic discipline:

- a. Digital evidence examiners do not compare unknown evidence with known reference materials obtained from a reliable source
- b. Digital examiners cannot run known material in conjugation with the unknown evidence'
- c. The process varies among laboratories
- ☒ d. All the above are true about the standards and controls for digital evidence process

①

19. Which one is a primary explosive?

- ☒ a. RDX
- b. ANFO
- c. TNT
- d. PbN_3

x

20. The Anti-dote for methyl alcohol metabolism is:

- ☒ a. Atropine
- b. Ehanol
- c. Nalmorphine
- d. Caffeine

x

21. Recovery of firearm or related items such as bullets and cartridges case indicates:

- a. Corpus-Delicti
- b. Modus-Operandi
- c. Link between victim and suspect
- ☒ d. All of the above

①

22. Which of the following statement is *true* :

- a. All the firearms changes with the passage of time due to wear and tear and weathering action of atmosphere
- b. The above statement is true to fired or unfired ammunition
- c. Natural changes are ordinarily very slow and remained unnoticeable over long period
- ☒ d. All are correct

23. Abrasion, Contusion and dirt color are characteristics of:

- a. Contact range
- b. Close range
- ☒ c. Long range
- d. All of the above

24. Scorching/Burning/Charring is caused by:

- ☒ a. Flame
- b. Hot gases
- c. Projectiles
- d. Powders

Choose the *correct* answer from the codes:

- ☒ (a) a and b are correct
- (b) c and d are correct
- (c) a and c are correct
- (d) a and d are correct

25. Tattooing is caused by:

- a. Flame
- ☒ b. Projectiles
- c. Burnt powder
- d. Embedding of un-burnt and semi-burnt powder particles

26. Peppering is also called:

- ☒ a. Blackening
- b. Burning
- c. Tattooing
- d. Scorching

27. Which of the following is a high explosive?

- a. Picric acid
- ☒ b. PETN
- c. Black powder
- d. Mercury fulminate

①

28. Bomb made up of high explosive must be detonated by :

- a. Non-initiating explosion
- ☒ b. Initiating explosion
- c. Percussion cap
- d. Black powder

①

29. Which of the following drugs is abused in sports?

- a. Cocaine
- b. Barbiturates
- c. Heroín
- ☒ d. All of these

x

30. Which of the following is the *true* narcotics substance?

- a. Codeine
- b. Heroin
- c. Morphine
- ☒ d. All of these

①

31. Which of the following is *not* a cannabis preparation?

- a. Charas
- b. Ganja
- c. Hashish oil
- ☒ d. Opium

①

32. The main ingredient of Mandrax is :

- a. PCP
- b. STP
- ☒ c. Methaqualone
- d. GHB

①

S

33. Drugs such as alcohol, Heroin, Amphetamine, Barbiturates and Cocaine lead to which degree of addiction?

- ☒ a. High
- b. Low
- c. Moderate
- d. None of these

①

34. A gummy, milky juice exuded through a cut made in the unripe pod of the poppy is known as :

- ☒ a. Opium
- b. Charas
- c. Ganja
- d. Sulpha

①

35. Which one of the following is a primary constitute of Opium?

- ☒ a. Morphine
- b. Diamorphine
- c. Mon acetyl morphine
- d. Acetyl codeine

①

36. In a Breath analyzer the ethyl alcohol reacts with:

- ☒ a. Potassium dichromate
- b. Potassium permagnate
- c. Potassium chloride
- d. Potassium sulphate

①

37. Name of the scientist who started DNA fingerprinting technique

- ☒ a. Dr. Alec Jeffrey
- c. Watson & Crick

- b. Dr.C.V.Raman
- d. Mendelein

①

38. Vaginal swab of rape victim contains DNA of

- a. Victim girl
- ☒ c. Victim girl & Accused

- b. Accused
- d. None of this

①

39. Nuclear DNA contains genetic information from

- a. Mother only
- ☒ c. Mother & Father

- b. Father only
- d. None of this

①

40. X-Ray examination in firearm injuries is carried :

- a. To locate the bullets/pellets
- b. To locate small metallic fragments left inside the body
- c. To know the track
- ☒ d. All of the above

41. Sleeping tablets contain :

- ☒ a. Codeine
- b. Iodine
- c. Barbiturate
- d. Dexidrine

42. Poisonous substances have :

- ☒ a. High therapeutic index
- b. Low therapeutic index
- c. No therapeutic index
- d. None of the above

43. In acid burning cases the cloth exhibits should be put /wrapped in:

- a. Paper
- b. Plastic bag
- c. Cloth piece
- ☒ d. Cardboard box

44. When a poison is detected in the stomach and not in viscera, the poison is :

- a. Not absorbed
- b. Introduced after death
- c. In effective
- ☒ d. Any of the above

45. Why do forensic Photographers often use scales in their photographs?

- ☒ a. They provide important information about the relative size of the objects
- b. They are particularly useful in courtroom situations
- c. Both (a) and (b)
- d. They provide complete information

46. In explosive connected cases seized bomb/detonator should be sent to this laboratory:

- a. As it is
- b. After disposing at Police Station
- c. After disposing at the site
- ☒ d. After disposing by Bomb disposal squad

①

47. The colour of free sell kerosene is

- ☒ a. Colourless
- b. Brown
- c. Blue
- d. Orange

①

48. In bride burning cases the important exhibits from the analysis point of view are

- a. Match box
- b. Matchsticks
- ☒ c. Burnt clothes of victim & accused
- d. Kerosene

①

49. In drunk and drive case punishable alcohol level in blood is -----and above.

- a. 5mg/100ml
- b. 10mg/100ml
- ☒ c. 20mg/100ml
- ☒ d. 30mg/100ml

①

50. In J.M. Road (JUNGLY MAHARAJ ROAD) Pune serial bomb blast case ----- explosive was detected.

- ☒ a. Ammonium Nitrate
- b. HMX
- c. PETN
- d. RDX

①

ES

13th MAHARASHTRA POLICE DUTY MEET-2015, PUNE

SCIENTIFIC AIDS TO INVESTIGATION.

FORENSIC SCIENCE WRITTEN TEST

TOTAL MARKS-50

Chest No. - 46

Time- 1 hrs

-
- a) Attempt all the questions
 - b) Tick () the correct option
-

A) Choose the correct answer

- 1) The positive identification of a person from blood stain is determined by -----
- ☒ a) Blood group in ABO System
 - b) Serum Group
 - c) Human Leucocytes analysis
 - d) DNA Finger Print

- 2) Viscera is not needed in cases of Poisoning by -----

- ① ✓
- a) Organ phosphorus Compound
 - b) Barbiturates
 - c) Tranquilizers
 - ☒ d) Snake bite

- 3) Mitochondrial DNA is -----

- ① ✓
- ☒ a) Double helical
 - b) Circular
 - c) Coiled
 - d) Single helical

- 4) Skull Super Imposition technique is generally useful in determining -----

- X ✓
- a) Age of victim
 - b) Size of skull
 - c) Likely Identification of victim
 - d) Sex of skull

5) The Toxicity of poison is expressed in -----

a) LC 50

b) LD 50

c) LCV

☒ d) All the above

6) What is chemical Formula of ethanol -----

a) $\text{CH}_3\text{-OH}$

☒ b) $\text{C}_2\text{H}_5\text{OH}$

c) $\text{C}_2\text{H}_5\text{OH}$

d) $\text{CH}_3\text{-CH-OH}$

7) ----- is used to prevent fermentation in toddy Sample

☒ a) Ammonium Sulphate

b) Copper Sulphate

c) Sodium Citrate

d) Sodium Fluoride

8) Which is the most commonly used test to detect the blood -----

☒ a) Kastle - Mayer Test

b) Luminal Test

c) Malachite green Test

d) All the above

9) Which can not be used by DNA Finger Printing in human-----

☒ a) Leucocytes

b) Bones

☒ c) Erythrocytes

d) Hair roots

10) Diatoms in bone marrow are found in death due to-----

☒ a) Radiation

b) Strangulation

☒ c) Drowning

d) Poisoning

11) Powdered glass and diamond are classified as----- poison.

☒ a) Corrosive

b) Mechanical

c) Cardiac

d) Spinal

12) Full form of MLC is-----

- ① ✓ a) Murder less care
✓ c) Medico legal Case
b) Mean less cartridge
d) All the above

13) Cement is generally adulterated with-----

- ✓ ① a) Soil
✓ c) Stone Powder
b) Sand
c) None of above

14) PETN, RDX, TNT are-----

- ✗ a) Organic explosives
c) Throw down type of explosives
b) Inorganic explosives
✓ d) Low explosives

15) Chemically erased writing on documents can be seen under-----

- ① ✓ a) Visible light
✓ c) Ultra-violet light
b) Infra red light
d) X-ray

16) Most of the poisons after absorption are modified or detoxified by-----

- ① ✓ a) Kidney
✓ c) Liver
b) Spleen
d) Pancreas

17) Which among following is not a plant poison -----

- ✗ a) Strychnine
c) Ricin
✓ b) Atropine
d) Cypermethrin

18) G.S.R. means -----

- ① ✓ a) Gun solid Residue
c) Gun shot result
✓ b) Gunshot Residue
d) Gun same result

19) In Spectrograph ----- represents Y-axis

- a) Time
- b) Frequency
- c) Intensity
- ☒ d) Both a) and b)

20) What is Frequency-----

- a) Number of waves per second
- ☒ b) Number of cycles of wave per second
- c) Number of amplitude of wave per second
- d) Number of sound of per second

21) Smokeless Propellant used in cartridge contain-----

- a) Gun powder
- ☒ b) black powder
- c) Nitro cellulose and Nitroglycerin
- d) Brown powder

22) Which of the following is digital storage media-----

- a) Spy Camera
- b) Pen drive
- ☒ c) Modem/USB Modem
- d) Laptop

23) Sale of Pornographic and absence material through digital storage media is an offence under-----

- a) IT Act
- b) IPC
- ☒ c) Both a) & b)
- d) Crimes against women & POSCO

24) In Acid Poisoning Cases Viscera should be preserved in-----

- ☒ a) Sodium Chloride
- b) Ethyl alcohol
- c) Glycerin
- d) None of the above

25) The term Dirty Bomb is related to type of Bomb-----

① ✓ a) Acid Bomb

b) Organic explosive Bomb

✓ c) Nuclear Bomb

d) None of the above

26) ----- is not an alkaloid derived from opium.

① ✓ a) Morphine

b) Codeine

✓ c) Caffeine

d) Papaverine

27) The 42.8% if ethanol is expressed in P.S.-----

✗ ✓ a) 65° PS

b) 71° PS

c) 70° PS

d) 75° PS

28) DNA Fingerprinting Technique in Forensic Science is innovated by-----

① ✓ a) Watson and Crick

b) Karl Landsteiner

✓ c) Allec Jeffery

d) None of the above

29) Bhang and Hemp are obtain from-----

① ✓ a) Mesua Ferrea

✓ b) Cannabis Sativa

c) Viola Odorata

d) Centella Asitica

30) More than -----% of Morphine in sample is punishable under NDPS Act.

✗ ✓ a) 0.02

b) 0.05

c) 0.5

d) 0.2

31) Snuff is -----

✗ a) Powdered Dhatura

b) Powdered tobacco

c) Powdered turmeric

✓ d) Mixture of all above

32) Hand grenade is ----- type of device.

① ✓

☒ a) Throw down

b) Time device

c) Remote device

d) Light Sensor

33) In cyber Crime-----should not be submitted to Cyber Forensic Laboratory.

① ✓

a) Hard Disk

b) Pen drive

☒ c) Key-board

d) Compact Disk

34) The mixture of Potassium Nitrate, Sulphur and Charcoal is called-----

① ✓

☒ a) Gun Powder

b) Smokeless Powder

c) Dynamite

d) None of the above

35) Audible range of human ear is-----

① ✓

a) 10-10,000HZ

☒ b) 20-20,000HZ

c) 30-30,000HZ

d) 40-40,000HZ

3

B) True or False

- ✓ 1) Atropine is active ingredient of Nux-Vomica. (True/ False) ✓
- ✓ 2) 150% v/v of blood alcohol concentration is unfit for driving vehicle. (True/ False)
- ✓ 3) Viscera is not needed in Snake bite poisoning cases. (True/ False) ✓
- ✓ 4) A Characteristic U shaped teeth marks is indicative of poisonous Snake bite. (True/ False)
- ✓ 5) Colour tests are used to identify drugs conclusively. (True/ False) ✓

4

C) Match the following

- | | | |
|-----------------------|-------|--------------------------|
| ✓ 1) Densitometer | [b] | a) Detection of metal |
| ✓ 2) Genetic Analyzer | [f] | b) Estimation of Alcohol |
| ✓ 3) EDXRF | [a] | c) Diazepam |
| ✗ 4) Dhatura | [c] | d) Strychnine |
| ✓ 5) Nux-Vomica | [d] | e) Atropine |
| | | f) Paracetamol |
| | | g) DNA Finger Printing |

D) Fill in the blanks

✕ 1) Colour of TNT is white

✕ 2) Amylase test is used to detect enzyme

① ✓ 3) In bribery cases Anthracine powder is applied on currency note.

✕ 4) In methyl alcohol poisoning cases antidote is Antigin

① ✓ 5) Scientific name of lie detection test is polygraphy test

**14th MAHARASHTRA STATE POLICE DUTY MEET-2016,
PUNE
SCIENTIFIC AIDS TO INVESTIGATION**

FORENSICS SCIENCE (WRITTEN)

Chest No.:-	47	Examiner's sing	 DySP CID
--------------------	----	------------------------	---

Time: 2 hrs.

Total Marks- 50

Instructions:

- Write your chest number carefully.
- All questions are compulsory.
- Each question carries one mark.
- Tick [✓] the right answer.
- Use black or blue ball point pen only.
- Use of any electronic communication device is strictly prohibited.
- Any type of overwriting or correction or duplication shall not be counted for marks.

13+1=14
Sudhakar Kate
DySP CID

1) ~~1~~ Diatoms in bone marrow are found in death due to.....

- Radiation
- Strangulation
- Drowning
- Poisoning

2) ~~2~~ If both parents are of 'O' blood group. The child may be of.....

- 'A' group
- 'O' group
- Both a) & b)
- None of a) & b)

3) ~~3~~ From the skeleton the sex of the person can be ascertained by examination of.....

- Sternum
- Bones of hands & legs
- The pelvic girdle
- All of a), b) & C)

✓ 4) The people whose ABO antigens are not found in their saliva are known as.....

- ~~a) Non-Secretors~~
- 1 b) Secretors
- c) Salivators
- d) All of a), b) & c)

✓ 5) Sex of the scalp hair can be determined by the examination of

- a) Medulla of the hair
- 1 b) Pigmentation of shaft of hair
- c) The cross section of the hair
- ~~d) Nucleated root sheath cells~~

✓ 6) In eukaryotic cells the chromosomes are located in

- 0 a) Nucleus
- b) Nucleolus
- c) Golgi complex
- ~~d) Lysosomes~~

✓ 7) DNA finger printing is used in

- 0 a) Identification of suspected criminal
- ~~b) Formation of clones~~
- c) Identification of original parents
- d) Both (a) and (c)

✓ 8) DNA is polymer of

- 0 a) Proteins
- ~~b) Carbohydrates~~
- c) RNA
- d) Nucleotides

✓ 9) is added as a preservative in the Blood

- 0 a) Sodium chloride
- b) Sodium Citrate
- c) Sodium nitrate
- ~~d) None of a), b) & c)~~

10) DNA finger printing is useful for study of.....

- a) Forensic
- ☒ b) Polymorphism
- c) Identify and Relationships
- d) All of a) to c)

11) Rh-factor is present in blood of

- ☒ a) All vertebrates
- b) All mammals
- c) All Reptiles
- d) Man and Rhesus Monkey only

12) Alcohol belongs to the class of drugs known as

- ☒ a) Alkaloids
- b) Narcotics
- c) Depressants
- d) Stimulants

13) Hand grenade is -----type of device.

- a) Throw down
- ☒ b) Time device
- c) Remote device
- d) Light sensor

14) Nuclear DNA is -----

- a) Double helical
- b) Circular
- ☒ c) Coiled
- d) Single helical

15) Most of the poisons after absorption are modified or detoxified by -----

- a) Kidney
- b) Spleen
- ☒ c) Liver
- d) Pancreas

16) Pentadyne is type of explosive

- a) Gelatin
- b) Slurry
- c) Plastic
- ☒ d) Pyrotechnic

17) The instrument best suited to identify shooter

- a) SEM
- b) Polarized microscope
- c) Comparison microscope
- ☒ d) None of the above

18) IO put their mark on an item of evidence so that

- a) They can later claim it as souvenir
- b) The evidence custodian will know who collected it
- c) They can later identify it in court
- ☒ d) Crime lab technicians will know whom to ask about it

19) Osama bin laden et al use this high tech to post instruction for terrorists

- ☒ a) Cryptology
- b) Steganography
- c) Encryption
- d) Pornography

20) The positive identification of a person from blood stains is determined by.....

- a) Blood group in ABO System
- ☒ b) Serum Group
- c) Human Leucocytes analysis
- d) DNA Finger Print

21)is used to prevent fermentation in toddy Sample

- a) Ammonium Sulphate
- b) Copper Sulphate
- ☒ c) Sodium Citrate
- d) Sodium Fluorite

22) Cement is generally adulterated with.....

- a) Soil
- b) Sand
- c) Stone Powder
- ☒ d) None of above

23) Which among following is not a plant poison.....

- a) Strychnine
- b) Spleen
- c) Ricin
- ☒ d) Cypemethrin

24) Smokeless Propellant used in cartridge contain.....

- a) Gun powder
- ☒ b) Black powder
- c) Nitro cellulose and Nitroglycerin
- d) Brown powder

25) Which of the following is digital storage media.....

- ☒ a) Spy camera
- b) Pen drive
- c) Modem/USB Modern
- d) Laptop

26) The term Dirty Bomb is related to type of Bomb.....

- a) Acid Bomb
- b) Organic explosive Bomb
- ☒ c) Nuclear Bomb
- d) Non of the above

27) The 42.8% if ethanol is expressed in P.S.

- a) 65* PS
- b) 71* PS
- c) 70* PS
- ☒ d) 75* PS

✓ 28) Bhang and Hemp are obtain from.....

- a) Mesua Ferrea
- ✓ b) Cannabis Sativa
- c) Viola Odorata
- d) Centella Asitica

0 29) Snuff is.....

- a) Powdered Dhatura
- b) Powdered tobacco
- ✓ c) Powdered turmeric
- d) Mixture of all above

1 30) In Cyber Crime.....should not be submitted to Cyber Forensic Laboratory.

- a) Hard Disk
- b) Pen drive
- ✓ c) Key-board
- d) Compact Disk

1 31) The mixture of Potassium Nitrate, Sulphur and Charcoal is called.....

- ✓ a) Gun Powder
- b) Smokeless Powder
- c) Dynamite
- d) None of above

0 32) Audible range of human ear is.....

- a) 10-10,000HZ
- b) 20-20,000HZ
- ✓ c) 30-30,000HZ
- d) 40-40,000HZ

0 33) Viscera is not needed in case of poisoning by.....

- ✓ a) Organo Phosphorous compound
- b) Barbiturates
- c) Tranquilizers
- d) Snake bite

$$1 + 1 = 2$$

34) In bribery cases.....powder is applied on currency note

- a) Phenolphthalein
- ☒ b) Anthracene
- c) Acid
- d) Both a & b.

35) DNA Finger Printing technique was innovated by.....

- a) Wattson and Crick
- ☒ b) Alleck Jeffery
- c) Harigovind Khorana
- d) Karl Landsteiner

36) ----- cannot be used for DNA Finger Printing in humans?

- a) Leucocytes
- b) Erythrocytes
- c) Hair roots
- ☒ d) Sperms

37) DNA Finger Printing is mainly used for Forensic purpose and has been made legal evidence since.....

- ☒ a) 1978
- b) 1986
- c) 1992
- d) 2002

38) Saliva contains.....Enzyme.

- a) Peroxidase
- b) alpha-amylase
- c) Acid Phosphates
- ☒ d) None of above

39) Study of antigen – antibody reaction is called.....

- a) Forensic odontology
- ☒ b) Forensic Immunology
- c) Forensic Entomology
- d) None of above

40) DNA Profiling can be used in Forensic samples.....

- ☒ a) Scalp hair
- b) Bone of Teeth
- c) Blood
- d) All of above

41) DNA Finger Printing technique was innovated by.....

- a) Wattson and Crick
- ☒ b) Alleck Jeffery
- c) Harigovind Khorana
- d) Karl Landsteiner

42) Kastle – Mayer test is also one of the sensitive test used for detection of.....

- ☒ a) Saliva
- b) Urine
- c) Semen
- ☒ d) None of the Above.

43) Y-Chromosome is.....inherited.

- a) Maternally
- b) Paternally
- ☒ c) Both (a) and (b)
- d) None of (a) and (b)

44) Mother inherits her mitochondrial DNA to.....

- a) All ottsprings
- b) Only Female
- c) Only Male
- ☒ d) None of (a), (b) and (c)

45) Forensic Science is mainly based on.....

- a) Law of inheritance
- ☒ b) Law of Motion
- c) Law of Thermodynamics
- d) Locards Principle of exchange

0 46) The instrument oftenly used to generate DNA Profile.....

- a) Automatic Express Machine
- b) Genetic Analyser
- c) RT PCR Machine
- ☒ d) PCR Machine

0 47) The term polymerase chain Reaction is associated with.....

- a) DNA Finger Printing
- b) Skull Superimposition
- ☒ c) Both (a) and (b)
- d) None of (a) and (b)

1 48) Computer forensics involves all of the following stated activities except

- a) Extraction of computer data
- b) Preservation of computer data
- c) Interpretation of computer data
- ☒ d) Manipulation of computer data

0 49) The state of electronic crime scene may need to be processed by one or a combination of the following methods except.....

- a) Live acquisition of data
- b) Immediate detachment from a network server
- ☒ c) Performing a system shutdown
- d) Pulling the plug from the back of the computer

0 50) The common name for the crime of stealing password is.....

- a) Spooling
- b) Identity theft
- c) Spoofing
- ☒ d) Hacking

15th MAHARASHTRA STATE POLICE DUTY MEET-2017, NASHIK.
SCIENTIFIC AID TO INVESTIGATION
FORENSIC SCIENCE (WRITTEN TEST)

20
50

CHEST NO. - 195

TOTAL MARKS - 50.
TIME- 1 HOUR.

Instructions to the candidates-

- (A) Choose the correct answer.
- (B) Attempt all the questions.
- (C) Tick (✓) the correct option.
- (D) Double tick and over writing considered as a wrong answer.

Que. 01) Conventional serology would involves.

- A) Species identification & ABO grouping.
- B) Analysis the direction & angle that a weapon was fired from at a crime scene.
- ✓ C) Identifying the type of vehicle involved in the commission of a crime.
- D) The presence of poison & toxins in a body removed from a crime scene.

Que.02) For Toxicological analysis which of the following is classified as a volatile compound?

- ✓ A) Drugs of abuse & pharmaceuticals.
- B) Arsenic.
- C) Ethanol, methanol, Isopropanol.
- D) Cyanide.

Que. 03) Forensic science is nothing but ____

- A) Multidisciplinary science
- B) Comparative science
- C) Science for justice
- ✓ D) All of the above

Que. 04) A Nucleotide is composed of _____

- A) Base + Sugar
- B) Base + Sugar + Phosphate
- C) Base + Phosphate
- ✓ D) None of these

Que. 05) DNA is present in _____

X

- A) Nucleus only
- B) Nucleus, Mitochondria
- ✓ C) Nucleus, Mitochondria & chloroplast.
- D) All of the above

Que. 06) Genetic mutation occurs in _____

X

- A) Protein
- B) RNA
- C) DNA
- ✓ D) Nucleus

Que. 07) The basic repeating units of a DNA molecule is _____

✓

- A) Nucleoside
- ✓ B) Nucleotide
- C) Histones
- D) Amino Acids

Que. 08) Which hairs provide the most features for comparison to the other hairs?

X

- A) Scalp hair
- B) Chest hair
- ✓ C) Limb hair
- D) Facial hair

Que. 09) "Every Contact leaves a trace" this principle was stated by which of the following scientist.

X

- A) Watson & Crick
- ✓ B) Lord Graham
- C) Edmond Locard
- D) Marie Curie

Que. 10) At a crime scene you find a victim's finger nail scrapings on the floor. These scrapings would be correctly packaged in.

X

- A) An ordinary mailing envelope
- B) A loose brown paper bag
- C) A druggist fold
- ✓ D) None of the above

Que. 11) When a bullet penetrates a panel of glass, it leaves a crater shaped hole that:

- A) Is wider on the exist side
- B) Is wider on the entrance side
- ✓ C) Direction of impact cannot be determined by it's appearance
- D) None of the above

Que. 12) Flotation is a method used by scientist to determine what about a particle of a glass.

- A) Density
- ✓ B) Refractive index
- C) Mass
- D) Weight

Que. 13) Where are the pigment granules that impart hair with colour found in?

- A) Cortex
- B) Medulla
- C) Cuticle
- ✓ D) Both A & B

Que. 14) Medullary index of human hair is _____ the medullary index of animal hair.

- A) Same as
- B) Greater than
- ✓ C) Less than
- D) None of the above

Que. 15) Earth mixed with blood ,blood stained grass, after total drying should be wrapped _____ and sent to the laboratory.

- A) In closed plastic bottel
- B) In paper
- C) In polythene bag
- ✓ D) None of the above

Que. 16) _____ is used to prevent fermentation in toddy sample.

- ✓ A) Ammoniumsulphate
- B) Copper sulphate
- C) Sodium citrate
- D) Sodium fluoride

Que. 17) Full form of MLC is _____

- ☒ A) Medico legal certificate
- B) Mean less cartridge
- C) Medico legal case
- D) All of the above

Que. 18) If minor victim is raped by two or more accused, then which of the following is most crucial evidence.

- A) Blood grouping
- ☒ B) D.N.A.
- C) Poison.
- D) None of the above.

Que. 19) G.S.R. Means _____

- ☒ A) Gun solid residue.
- B) Gun shot residue
- C) Gun shot result
- D) Gun same result

Que. 20) In acid poisoning cases viscera should be preserved in _____

- A) Sodium chloride
- B) Rectified spirit
- C) Glycerin
- ☒ D) None of the above

Que. 21) _____ is not an alkaloid derived from opium.

- A) Morphine
- ☒ B) Codeine
- C) Caffeine
- D) Papaverine

Que.22) DNA Finger printing technique in forensic science is innovated by _____

- ☒ A) Watson & Crick
- B) Karl Landsteiner
- C) John Gray
- D) Alec Jeffrey's

Que. 23) Bhang & Hemp are obtain from _____

- A) Mesuaferrea
- B) Cannabis sativa
- C) Viola odorata
- ✓ D) Centellaasiatica

Que. 24) Snuff is _____

- A) Powdered Dhatura
- B) Powdered tobacco
- C) Powdered turmeric
- ✓ D) Mixture of all above

Que. 25) In cyber crime _____ should not be submitted to cyber forensic laboratory.

- A) Hard Disk
- B) Pen drive
- ✓ C) Keyboard
- D) Compact disc

Que. 26) Gun powder is a mixture of _____

- A) Sulfur, charcoal & potassium nitrate
- B) Sulfur & ammonium nitrate
- ✓ C) Sulfur & TNT
- D) Charcoal & phosphorus

Que. 27) Full form of DNA is _____

- A) Deoxynitrogen acid
- B) Deoxynarcoanalysis
- C) Deoxyribonucleic acid
- ✓ D) Deoxynitrogen analysis

Que. 28) Medical Jurisprudence, Forensic medicine & Legal Medicine are considered as _____

- A) Different terms
- ✓ B) Synonymous terms
- C) Strange terms
- D) None of above

Que. 29) Medico legal report is _____

- A) Report of injuries
- ✓ B) Report of cause of death
- C) Report of chemical examiner
- D) None of the above

X

Que. 30) Excessive loss of blood as a result of injury resulting in severe anemia is called as _____

- A) Hemorrhage
- B) Asphyxia
- ✓ C) Both A & B
- D) None of the above

X

Que. 31) Viscera is _____ organ of the body.

- A) External
- ✓ B) Internal
- C) Both A & B
- D) None of above

✓

Que. 32) Drowning is _____ type of death.

- A) Natural
- B) Normal
- C) Electrical
- ✓ D) Asphyxial

✓

Que. 33) The colour of fresh blood stain is _____

- A) Bright red
- ✓ B) Brownish red
- C) Generally black
- D) None of above

X

Que. 34) Opium is _____ type of poison.

- ✓ A) Somniferous
- B) Feeble
- C) Normal
- D) None of the above

✓

Que. 35) Viscera is not needed in case of poisoning by _____

- A) Organo phosphorus compound.
- ✓ B) Barbiturates.
- C) Tranquilizers.
- D) Snake bite.

Que. 36) In murder or drowning cases wet clothes of victim are dry _____ before send to C.A. for Chemical Examination.

- A) In sunlight.
- ✓ B) In shadow.
- C) By using hot airFan.
- D) None of the above.

Que. 37) In Hit & Run cases which test is most important to convict the crime _____

- A) Blood grouping of accused.
- B) DNA test of accused .
- C) Species origin test of accused.
- ✓ d) Blood alcohol test of accused.

Que. 38) Which of the following point is important to distinguish between animal & human hair?

- A) Colour & Thickness of hair.
- B) Proportion of medulla & cortex of hair.
- C) Diameter & length of hair.
- ✓ D) All of the above.

Que. 39) Which is the proper technique to collect dust & powder evidence at crime scene?

- ✓ A) By using soft brush take on white paper.
- B) By using hand take on white paper.
- C) By using cloth take on glass.
- D) None of the above.

Que. 40) The DNA Fingerprint pattern of child is _____

- A) 100% similar to the Fathers DNA print.
- B) 100% similar to the Mothers DNA print.
- ✓ C) 50% bands similar to Father & rest similar to Mother.
- D) None of the above.

Que. 41) The objective of polygraph examination is to check _____

- A) The blood pressure of the subject.
- B) The veracity of the statement.
- ✓ C) The respiration of the subject.
- D) The health of the subject.

Que. 42) Which truth serum is commonly used as psychotropic or torpor drug in Narco analysis?

- A) Sodium Amytol,
- ✓ B) Sodium Pentathol,
- C) Barbiturates,
- D) Di acetyl morphine,

Que. 43) What is normal hand forgery?

- A) When forger copies from model.
- ✓ B) When a forger copies handwriting of a third party.
- C) When the forger simply distort his/her own handwriting.
- D) When forger tries to maintain same speed as original writing.

Que. 44) Which of the following methods are used to trace evidence on a crime scene?

- A) S Type.
- B) Spiral Type.
- C) Wheel Type.
- ✓ D) All of the above.

Que. 45) In case of hit & run automobile cases which of the following exhibits to be collected.

- A) Broken pieces of glasses.
- B) Colour paints of vehicle.
- C) Blood of victim & accuse.
- ✓ D) All of the above.

Que. 46) First & most important job of investigation officer on scene of crime is _____

- A) Chain of custody.
- B) Analysis the evidence.
- C) Packaging of evidence.
- ✓D) Securing the scene.

Que. 47) Bite mark would be least likely to be in cases involving _____

- A) Sexual abuse.
- B) Murder.
- ✓C) Arson.
- D) Assault.

Que. 48) Carbon monoxide poisoning causes _____

- A) Anemic hypoxia.
- B) Histotoxic hypoxia.
- ✓C) Anoxic hypoxia.
- D) Stagnant hypoxia.

Que. 49) Physical evidence is considered to have _____ as that of eyewitness (testimonial) evidence.

- A) The same value.
- B) Less value.
- C) Greater value.
- ✓D) Not related.

Que. 50) The percentage of alcohol in strong beer & whisky are _____ and _____ respectively.

- A) 25.1% and 38.3 %
- B) 19.1% and 33.9 %
- C) 22.5 % and 46.2 %
- ✓D) 8.0 % and 42.8 %

16th MAHARASHTRA POLICE DUTY MEET 2018 ,PUNE
SCIENTIFIC AID TO INVESTIGATION ,
FORENSIC SCIENCE (WRITTEN TEST)

Chest No – 27

TOTAL MARKS-50

Time - 2 hrs

A) Attempt all questions

B) Tick (✓) the correct option

C) Double tick & over writing considered as wrong answer .

-
1. In case of carbon monoxide poisoning which preservative is recommended for the preservation of blood samples.
- A) Sodium Chloride ✓ ①
- B) Sodium Fluoride
- C) Sodium Carbonate
- ✓ D) No preservative
2. Free sulfuric acid is rarely found in stomach contents in acid poisoning cases because
- A) It may be vomited out. ✓ ②
- B) May be neutralized by alkalies given as antidotes.
- C) May combine chemically with the tissue with which it comes in contact.
- ✓ D) All the above.
3. Mustard gas is called – ✓ ①
- A) Black belt
- ✓ B) Yellow cross
- C) Green tiger
- D) Brown bangles
4. Heroin is the same thing as ✓ ①
- A) Butarphanol
- ✓ B) Diacetylmorphine
- C) Dextromethorphan
- D) Codeine

5. Cadaveric spasm indicates

- A) Suicide
- B) Homicide
- C) Natural death
- ☒ D) Last act of a person before death

6. Accidental drowning is ruled out if

- A) The body is tied up inside a gunny bag
- B) Hand and feet are tied by a ligature in a way that it is inconsistent with suicidal drowning
- C) Heavy weight are attached in such a way that suicidal drowning is excluded
- ☒ D) All of the above.

7. In case of throttling which type of abrasions are seen commonly, over the neck of victim.

- ☒ A) Graze
- ☒ B) Pressure
- C) Crescentic
- D) Impact

8. Fracture of the hyoid bone results from all, except

- A) Throttling
- ☒ B) Hanging
- C) Chocking
- D) Ligature strangulation

9. The ammunition which consists of a bullet with the propellant formed around the bullet as a single piece is known as :

- ☒ A) Blank ammunition
- B) Caseless ammunition
- C) Centre fire ammunition
- D) Rimfire ammunition

10. Bullet which is lodged inside the barrel and comes out along with another bullet fired from the same gun is called –

- A) Slug bullet
- B) Jacketed bullet
- C) Spitzer bullet
- ☒ D) Tandem Bullet

11. AK-47 Short rifle having caliber
☒ A) 7.62 x 39 mm
B) 7.62 x 54 mm
C) 7.62 x 51 mm
D) None of these
12. Zip guns is a –
A) Improvised firearm
B) Country made firearm
☒ C) Both (A) and (B)
D) None of the above
13. Kerosene is blend of –
A) Paraffins
B) Naphthenes
C) Aromatics
☒ D) All of the Above
14. Which one is the most sensitive and reliable instrument used in the laboratory for fire arson cases examination.
A) UV-Spectrophotometer
X B) IP-Spectrophotometer
C) Gas Chromatography
☒ D) High pressure thin layer chromatography
15. In fire arson cases, the suspected samples from site are collected in ----
A) Paper bags
B) Polythene bags
C) Cloth bags
☒ D) Airtight container of metal or glass.
16. TNT stands for –
A) Tetra nitro-toluene
B) Tri nitrate toluene
☒ C) Tri nitro toluene
D) None of above

17. Mechanical explosion is due to the –
 X A) Shock ☒ B) Heat
 C) Fire D) None of the above
18. Assertion (A) : Photography of the scene of crime plays a very important role in crime scene investigation.
 Reason (R): What a human eye may not be able to see, can be recorded by a camera.
☒ A) (A) is correct but not (R)
 X B) (R) is correct but not (A)
 C) Both (A) and (R) are correct
 D) Both (A) and (R) not correct
19. Secret writings written with starch containing ink can be deciphered with the help of –
☒ A) Iodine fuming ✓ ①
 B) Hot silver plate method
 C) Hot aluminum plate method
 D) None of the above
20. The erased are in the paper can be detected by –
☒ A) UV Light
 X B) Oblique light
 C) Parallel light
 D) Transmitted light
21. Which of the following method used to obliterate identification marks on vehicles (Engine & Chassis No.).
 A) Filling and grinding ✓ ①
 B) Central punching
 C) Welding
☒ D) All of above
22. Basic PH of Soil –
☒ A) Neutral (6.6-7.3) ✓ ①
 C) Extremely Acidic (3.5-4.4) B) Strongly Alkaline (8.5-9.0)
 D) Slightly Acidic (5.6-6.0)

23. In pain analysis EDXRF is useful for –

- ☒ A) Elemental detection
- B) Binder detection
- C) Pigment detection
- D) Vehicle detection

✓ (1)

24. A footwear print observed on the cloths worn by victim of an alleged murder case could be best lifted by using

- A) Plaster of Paris
- B) Liquid wax
- ☒ C) Electrostatic dust print lifting device
- D) Adhesive tape

✓ (1)

25. Examination of saliva performed in which of the following division?

- A) Chemistry
- ☒ B) Biology
- C) Physics
- D) Toxicology

✓ (1)

26. Blood alcohol concentration (BAC) is measured in

- ☒ A) Weight/Volume percent
- B) Volume/Volume percent
- C) Weight/Weight percent
- D) All of the above.

✓ (1)

27. Assertion (A) : Blood stains on cloth should be collected after drying in shade under room heater.

Reason (R) : It causes disintegration of blood stains.

- A) Both (A) and (R) are correct.
- B) Both (A) and (R) are incorrect.
- C) (A) is correct, but (R) is incorrect.
- ☒ D) (A) is incorrect and (R) is correct.

✓ (1)

28. The complementary base pairs among four nucleotides (A, T, G, C) are as

- A) A=G and T=C
- B) A=C and G=T
- ☒ C) A=T and G=C
- D) All of above

✓ (1)

29. Human hair when examined under microscope will reveal

- ☒ A) Thick cortex and thin medulla
- B) Thin cortex and thick medulla
- C) Cortex and medulla with equal thickness
- D) None of the above

✓ ①

30. Genes which exists as alternate expressions at a particular locus is known as

- A) Loci
- B) Antigen
- C) Allele
- ☒ D) Phenotype

X

31. What is the ratio of medulla to shaft diameter in human hair

- A) >0.3
- B) >0.5
- C) >0.6
- ☒ D) >0.7

X

32. Death in judicial hanging, is because of

- A) Vasovagal shock
- B) Occlusion of airway
- ☒ C) Fracture dislocation of upper vertebra
- D) Coma

X

33. In close range firing could be found

- A) Burning, Scorching
- B) Blackening
- C) Tattooing
- ☒ D) All of the above

X

34. Peppering is also called :

- A) Blackening
- ☒ C) Tattooing
- B) Burning
- D) Scorching

✓ ①

35. A forged signature is also known as –

- A) Forgery
- B) Fraudulent signature
- ☒ C) Guided Signature
- D) None of the above

36. Striagraph is used to examine -

- A) Bite mark
- B) Skid marks
- ☒ C) Tool marks
- D) Ligature mark

37. Matching of DNA sequence of criminal of with suspect is known as.

- A) DNA Amplification
- ☒ B) DNA finger printing
- C) DNA Resolution
- D) None of (a), (b) and (c)

38. The detection of colostrums is essential I the following situation:

- ☒ A) Concealment of birth.
- B) Rape
- C) Paternity dispute
- D) Immigration

39. ABO grouping is based on

- ☒ A) Red cell surface antigen
- B) Plasma proteins
- C) Red cell enzymes
- D) Nuclear chromatin

40. Scales are found on the following fiber

- ☒ A) Wool
- B) Cotton
- C) Linen
- D) Silk

41. Coloured glass contains

- ☒ A) Metallic oxides
- B) Molten rock
- C) Metallic sulphides
- D) Non metal

42. Cherry red colour of blood and tissues is characteristic of poisoning with.
☒ A) Carbon monoxide
 B) Carbon dioxide
 C) Hydrogen sulphide
 D) Calcium carbide
43. Genetic mutation occurs in ----
 A) Protein
 B) RNA
☒ C) DNA
 D) Nucleus
44. In acid poisoning cases viscera should be preserved in -----
 A) Sodium chloride
 X B) Rectified spirit
☒ C) Glycerin
☒ D) None of the above
45. Gun powder is a mixture of -----
☒ A) Sulfur, charcoal & potassium nitrate
 B) Sulfur & ammonium nitrate
 C) Sulfur & TNT
 D) Charcoal & phosphorus
46. Viscera is not needed in case of poisoning by -----
 A) Organo phosphorus compound
 B) Barbiturates
 C) Tranquilizers
☒ D) Snake bite
47. Which of the following point is important to distinguish between animal and human hair ?
 X A) Colour and thickness of hair B) Proportion of medulla & cortex of hair
 C) Diameter & length of hair ☒ D) All of the above

48. What is normal hand forgery ?

- A) When forger copies from model
- B) When a forger copies handwriting of a third party
- C) When a forger simply distort his/her own handwriting
- ☒ D) When a forger tries to maintain same speed as original writing.

✓ ①

49. Which of the following is an example of breathable container for packing evidence ?

- A) Plastic bags
- B) Plastic container
- C) Glass container
- ☒ D) Paper bags

✓ ①

50. Chemically, mustard gas is –

- A) Dibenzyl Chloride
- ☒ B) Chlorovinyl dichlor arsenine
- ☒ C) Methyl isocynate
- D) Dichlor diethyl sulphide

X