



Maharashtra Public Service Commission

Notations :

- 1.Options shown in **green** color and with  icon are correct.
- 2.Options shown in **red** color and with  icon are incorrect.

| | |
|---|--|
| Question Paper Name : | AssistantDirectorofForensicScienceAdvtno34of2022 29th August 2023 Shift 2 |
| Subject Name : | Assistant Director of Forensic Science Advt no 34 of 2022 |
| Actual Answer Key : | Yes |
| Calculator : | None |
| Magnifying Glass Required? : | No |
| Ruler Required? : | No |
| Eraser Required? : | No |
| Scratch Pad Required? : | No |
| Rough Sketch/Notepad Required? : | No |
| Protractor Required? : | No |
| Show Watermark on Console? : | Yes |
| Highlighter : | No |
| Auto Save on Console? | Yes |
| Change Font Color : | No |
| Change Background Color : | No |
| Change Theme : | No |
| Help Button : | No |
| Show Reports : | No |
| Show Progress Bar : | No |
| Is this Group for Examiner? : | No |
| Examiner permission : | Cant View |
| Show Progress Bar? : | No |

Assistant Director of Forensic Science Advt no 34 of 2022

| | |
|---|--------|
| Section type : | Online |
| Enable Mark as Answered Mark for Review and Clear Response : | Yes |
| Maximum Instruction Time : | 0 |
| Is Section Default? : | null |

**Question Number : 1 Question Id : 630680331377 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

Meconic acid is found in:

Options :

1. ✓ opium poppy
2. ✗ salvia divinorum
3. ✗ tobacco
4. ✗ cannabis

Question Number : 2 Question Id : 630680331378 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The chiral stationary phase in GC is mainly used for the separation of which kind of components?

Options :

1. ✗ Conformational isomers
2. ✓ Enantiomers
3. ✗ Geometric isomers
4. ✗ Structural isomers

Question Number : 3 Question Id : 630680331379 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is a nitramine explosive?

Options :

1. ✗ TNT
2. ✓ RDX
3. ✗ Picric acid
4. ✗ PETN

Question Number : 4 Question Id : 630680331380 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Gas-liquid chromatography is based on:

Options :

1. ✗ Beer's law
2. ✗ Lebec's law
3. ✗ Piobert's law
4. ✓ Henry's law

Question Number : 5 Question Id : 630680331381 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The stationary phase in reverse-phased chromatography is:

Options :

1. ✓ non-polar

- ✘ polar
- ✘ both non-polar and polar
- ✘ neither non-polar nor polar

Question Number : 6 Question Id : 630680331382 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

The act of forcefully pushing a liquid or gas through a system to clean or clear it is called:

Options :

- ✘ elution
- ✘ washing
- ✔ flushing
- ✘ partitioning

Question Number : 7 Question Id : 630680331383 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

Raman spectroscopy is complementary to:

Options :

- ✔ IR
- ✘ NMR
- ✘ FTIR
- ✘ UV-Vis spectroscopy

Question Number : 8 Question Id : 630680331384 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

Paper chromatography is a type of:

Options :

- ✘ absorption chromatography
- ✘ adsorption chromatography
- ✔ partition chromatography
- ✘ retention chromatography

Question Number : 9 Question Id : 630680331385 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

Which indicator is used in the process of titration between a strong acid and a weak base?

Options :

- ✘ Thymol blue
- ✘ Phenolphthalein
- ✔ Methyl orange
- ✘ Thymolphthalein

**Question Number : 10 Question Id : 630680331386 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

Bathochromic shift is:

Options :

1. ✓ Shift of λ_{\max} to less energy side (red shift)
2. ✗ Shift of λ_{\max} to higher energy side (blue shift)
3. ✗ Both red shift and blue shift
4. ✗ No shift in λ_{\max}

**Question Number : 11 Question Id : 630680331387 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

With the increase in temperature, the solubility of gases in a liquid:

Options :

1. ✗ increases
2. ✓ decreases
3. ✗ is not affected
4. ✗ first increases and then decreases

**Question Number : 12 Question Id : 630680331388 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

Cardiac glycosides present in the plant foxglove are:

Options :

1. ✗ crotin and crotonoside
2. ✓ digoxin and digitoxin
3. ✗ hyoscine and hyoscyamine
4. ✗ strychnine and brucine

**Question Number : 13 Question Id : 630680331389 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

Which of the following are types of gravimetric methods?

Options :

1. ✗ Colorimetry and Distillation methods
2. ✗ Diffusion methods
3. ✓ Electrogravimetry and Thermogravimetric methods
4. ✗ Filtration and Isogravimetric methods

**Question Number : 14 Question Id : 630680331390 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is a primary explosive?

Options :

1. ✘ ANFO
2. ✘ Dynamite
3. ✔ Mercury fulminate
4. ✘ HMX

Question Number : 15 Question Id : 630680331391 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is NOT the classical method for extraction of poisons?

Options :

1. ✘ electro dialysis
2. ✔ inductively coupled mass spectrometry
3. ✘ gutzeit method
4. ✘ steam distillation

Question Number : 16 Question Id : 630680331392 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The high-level exposure to _____ causes Minamata disease.

Options :

1. ✔ methyl mercury
2. ✘ mercuric oxide
3. ✘ metallic mercury
4. ✘ mercury cyanide

Question Number : 17 Question Id : 630680331393 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The example(s) of organochlorine pesticides is/are:

Options :

1. ✘ only DDT
2. ✘ only lindane
3. ✘ only endosulfan
4. ✔ DDT, lindane and endosulfan

Question Number : 18 Question Id : 630680331394 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is independent of temperature?

Options :

1. ✘ Molarity
2. ✔ Molality
3. ✘ Normality
4. ✘ Formality

Question Number : 19 Question Id : 630680331395 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

$C_3H_6N_6O_6$ is the chemical formula of which explosive?

Options :

1. ✘ Mercury fulminate
2. ✘ Tetryl
3. ✘ ANFO
4. ✔ RDX

Question Number : 20 Question Id : 630680331396 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

During the purification of copper by electrolysis, at the cathode:

Options :

1. ✔ pure copper gets deposited
2. ✘ $CuSO_4$ gets deposited
3. ✘ impure copper gets deposited
4. ✘ sulphur gets deposited

Question Number : 21 Question Id : 630680331397 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

K2 is the street name given to the designer drugs:

Options :

1. ✘ synthetic cathinones
2. ✘ amphetamines
3. ✔ synthetic cannabinoids
4. ✘ ketamines

Question Number : 22 Question Id : 630680331398 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

The detection of elemental sulphur during the extraction of explosives is done with:

Options :

1. ✘ organic solvent extract
2. ✘ water extract

- ✘ alkali extract
- ✔ pyridine extract

Question Number : 23 Question Id : 630680331399 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

In forensic analysis, the screening tests are performed for the purpose of:

Options :

- ✔ tentative identification
- ✘ definite identification
- ✘ quantitative analysis
- ✘ semi-quantitative analysis

Question Number : 24 Question Id : 630680331400 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

The appropriate container for packaging debris items obtained from an arson crime scene is a _____.

Options :

- ✔ tin box with tight lid
- ✘ plastic bag
- ✘ cloth bag
- ✘ sealed paper bag

Question Number : 25 Question Id : 630680331401 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

The size of a crime scene depends on the type of crime, the location of the evidence and the _____.

Options :

- ✔ type of evidence
- ✘ location of suspect
- ✘ climate of crime scene
- ✘ number of officers in the crime scene

Question Number : 26 Question Id : 630680331402 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

In which of the following methods of barefoot examination is an outline of an identified footprint drawn and positioned over an unknown footprint and compared?

Options :

- ✘ Optical centre method
- ✔ Overlay method
- ✘ Gunn method
- ✘ Composite method

Question Number : 27 Question Id : 630680331403 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

Which of the following is NOT a type of documentation done at crime scene?

Options :

1. ✘ Photography and videography
2. ✘ Note-making
3. ✘ Sketching
4. ✔ UV and IR imaging

Question Number : 28 Question Id : 630680331404 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

Accreditation means:

Options :

1. ✘ conducting assessment
2. ✘ meeting pre-determined standards
3. ✘ making care cost effective
4. ✔ ensuring quality

Question Number : 29 Question Id : 630680331405 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

Dr. Edmond Locard, renowned as the ‘Sherlock Holmes of France’, is widely acknowledged for his formulation of a fundamental premise that serves as a cornerstone in the field of forensic science. What principle did he propose?

Options :

1. ✘ Keep it simple.
2. ✔ Every contact leaves a trace.
3. ✘ If anything can go wrong, it will.
4. ✘ For every action there is an equal and opposite reaction.

Question Number : 30 Question Id : 630680331406 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

What is the direction of the arrow marked in crime scene sketch?

Options :

1. ✘ West
2. ✘ East
3. ✘ South
4. ✔ North

**Question Number : 31 Question Id : 630680331407 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

_____ challenges all activities in a new laboratory process in order to provide a high level of assurance that the process will function as intended in the live environment.

Options :

1. ✘ Document control or management
2. ✘ Proficiency assessment
3. ✘ Process control
4. ✔ Validation

**Question Number : 32 Question Id : 630680331408 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

A set of planned actions to provide assurance that the processes, other than testing, that influence the quality of the laboratory's results and reports are operating as intended is:

Options :

1. ✘ quality control
2. ✔ quality assurance
3. ✘ quality management system
4. ✘ compliance

**Question Number : 33 Question Id : 630680331409 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

NABL stands for:

Options :

1. ✘ National Accreditation Board for Laboratories
2. ✘ National Accreditation Board for Testing Laboratories
3. ✘ National Accreditation Board for Calibration Laboratories
4. ✔ National Accreditation Board for Testing and Calibration Laboratories

**Question Number : 34 Question Id : 630680331410 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Accreditation to a laboratory shall be valid for a period of _____ years.

Options :

1. ✘ 5
2. ✘ 3
3. ✔ 2
4. ✘ 6

Question Number : 35 Question Id : 630680331411 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

A/An _____ holds all paint components together with the surface.

Options :

1. ✓ binder
2. ✗ solvent
3. ✗ drier
4. ✗ extender

Question Number : 36 Question Id : 630680331412 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The formation of cross-linkage bonds in enamel paints is governed by:

Options :

1. ✗ only temperature
2. ✗ only oxidation
3. ✗ only initiators
4. ✓ temperature, oxidation and initiators

Question Number : 37 Question Id : 630680331413 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

In which of the following evidences are the Becke lines seen?

Options :

1. ✗ Wood
2. ✗ Paint
3. ✓ Glass
4. ✗ Metal

Question Number : 38 Question Id : 630680331414 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Peening means:

Options :

1. ✓ hammering the surface with a round punch
2. ✗ filling away the original number with a power grinder
3. ✗ stamping the new number
4. ✗ changing the number plate

Question Number : 39 Question Id : 630680331415 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Compression marks are produced by:

Options :

1. ✓ hammer
2. ✗ cutter
3. ✗ saw
4. ✗ drill machine

**Question Number : 40 Question Id : 630680331416 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

Tool marks are NOT easy to identify in the case of:

Options :

1. ✗ aluminium
2. ✓ rubber
3. ✗ copper
4. ✗ plaster of paris

**Question Number : 41 Question Id : 630680331417 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

_____ is/are NOT a part of emission system of a flame photometer.

Options :

1. ✗ Burner
2. ✗ Atomiser
3. ✗ Fuel gases and their regulation
4. ✓ Chopper

**Question Number : 42 Question Id : 630680331418 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

What factors determine the intensity of secondary electrons?

Options :

1. ✗ Only the shape of the irradiated object.
2. ✗ Only the chemical composition of the irradiated object.
3. ✗ Only the number of electrons ejected.
4. ✓ The size and chemical composition of the irradiated object, the number of electrons ejected and the number of electrons reabsorbed by the surrounding.

**Question Number : 43 Question Id : 630680331419 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

A cannellure helps in firearm identification as it determines:

Options :

1. ✓ the manufacturer of the bullet.

- ✘ the identity of the weapon that fired a particular bullet.
- ✘ the manufacturer of the weapon.
- ✘ the type of gun that fired a particular bullet.

Question Number : 44 Question Id : 630680331420 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

Which mechanism or system of a hand gun covers manipulating, loading, firing and extracting rounds?

Options :

- ✔ Action
- ✘ Breach
- ✘ Chambering
- ✘ Grouping

Question Number : 45 Question Id : 630680331421 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

The mechanism that causes the firing pin to ignite the primer of a cartridge is _____.

Options :

- ✘ action
- ✘ backstrap
- ✔ hammer
- ✘ breech

Question Number : 46 Question Id : 630680331422 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

Attention is paid to tread wear indicators because:

Options :

- ✔ they can help pinpoint the part of the tire which made the impression.
- ✘ they have numbers that identify the kind of tire that made the impression.
- ✘ they allow you to identify the colour of the tire. (if it was not black)
- ✘ they can reveal the gender of the person who drove the car.

Question Number : 47 Question Id : 630680331423 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5

The spontaneous reactions that occur mostly are _____ in nature.

Options :

- ✘ endothermic
- ✔ exothermic
- ✘ both endothermic and exothermic
- ✘ neither exothermic nor endothermic

**Question Number : 48 Question Id : 630680331424 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

Which of the following is NOT considered as an action mechanism in a firearm?

Options :

1. ✘ Bolt action
2. ✘ Lever action
3. ✘ Pump action
4. ✔ Rifle bored

**Question Number : 49 Question Id : 630680331425 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

_____ is NOT an internal safety in a firearm.

Options :

1. ✔ Thumb
2. ✘ Hammer block
3. ✘ Firing pin disconnect
4. ✘ Transfer bar

**Question Number : 50 Question Id : 630680331426 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

_____ are NOT striated marks.

Options :

1. ✘ Firing pin drag marks
2. ✔ Phantom marks
3. ✘ Concentric breech marks
4. ✘ Chamber marks

**Question Number : 51 Question Id : 630680331427 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

An oral evidence under Section 60 of the Indian Evidence Act may be:

Options :

1. ✔ direct only
2. ✘ hearsay only
3. ✘ both direct and hearsay
4. ✘ neither direct nor hearsay

**Question Number : 52 Question Id : 630680331428 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

The electronic evidences produced before the Court are called:

Options :

1. ✘ oral evidences
2. ✘ electronic evidences
3. ✔ documentary evidences
4. ✘ technical evidences

**Question Number : 53 Question Id : 630680331429 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is the correct order of examination of witnesses?

Options :

1. ✔ Examination-in-chief, Cross-examination, Re-examination
2. ✘ Cross-examination, Re-examination, Examination-in-chief
3. ✘ Examination-in-chief, Re-examination, Cross-examination
4. ✘ Not specified

**Question Number : 54 Question Id : 630680331430 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

What is the normal time limit for the disposal of the Right to Information Act (RTI) 2005 request from the date of its receipt?

Options :

1. ✘ 20 days
2. ✘ 25 days
3. ✘ 15 days
4. ✔ 30 days

**Question Number : 55 Question Id : 630680331431 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Under the RTI Act, if a public information officer fails to give information to the informant within the specified period, it is called:

Options :

1. ✘ contempt
2. ✘ holding Information
3. ✘ timeout
4. ✔ deemed rejection

**Question Number : 56 Question Id : 630680331432 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is/are NOT included in the definition of 'Information' under the RTI Act 2005?

Options :

1. ✘ Circulars
2. ✘ Log books
3. ✘ Database in the electronic record
4. ✔ File noting in process

Question Number : 57 Question Id : 630680331433 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

As per the Maharashtra Right to Public Services Act 2015, the authority while deciding an appeal shall have the same powers vested as:

Options :

1. ✘ a metropolitan court
2. ✘ a magistrate court
3. ✔ a civil court
4. ✘ a high court

Question Number : 58 Question Id : 630680331434 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

An officer appointed by the concerned public authority under subsection of Section 8 of the Maharashtra Right to Public Services Act 2015 is known as:

Options :

1. ✘ Commissioner Authority
2. ✘ District Authority
3. ✔ First Appellate Authority
4. ✘ Public Authority

Question Number : 59 Question Id : 630680331435 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

_____ is a mechanism of evolution in which the allele frequencies of a population change over generations due to chance (sampling error).

Options :

1. ✔ Genetic drift
2. ✘ Gene flow
3. ✘ Hitchhiking effect
4. ✘ Genetic make up

Question Number : 60 Question Id : 630680331436 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

“The relative frequencies of various kinds of genes and alleles in a large and randomly mating (panmictic) population tend to remain constant from generation to generation in the absence of mutation, selection and gene flow”. This statement is popularly known as:

Options :

1. ✘ Mendel's law of segregation
2. ✔ Hardy-Weinberg equilibrium
3. ✘ Darwin's theory of natural selection
4. ✘ Lamarck's theory

**Question Number : 61 Question Id : 630680331437 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

When closely related individuals mate with each other over a smaller population size, it leads to _____.

Options :

1. ✔ Inbreeding
2. ✘ Outbreeding
3. ✘ Founder effect
4. ✘ HW equilibrium

**Question Number : 62 Question Id : 630680331438 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

The length of the complete mitochondrial genome in humans is _____.

Options :

1. ✔ 16569
2. ✘ 16659
3. ✘ 15659
4. ✘ 15569

**Question Number : 63 Question Id : 630680331439 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

For identification of species, which of the following techniques is used to confirm the species that is validated and widely accepted by the scientific community?

Options :

1. ✘ Genotyping
2. ✘ Gel-based species identification
3. ✔ DNA sequencing
4. ✘ RT-PCR based identification

**Question Number : 64 Question Id : 630680331440 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

In non-human DNA typing, geographic assignment of samples can be done by the identification of _____ and its comparison with the genetic database of the species.

Options :

1. ✓ forensically informative nucleotide sequences
2. ✗ RFLP bands
3. ✗ junk DNA
4. ✗ short tandem repeats

**Question Number : 65 Question Id : 630680331441 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

What is full form of BOLD?

Options :

1. ✓ Barcode of Life Database
2. ✗ Biology of Life Database
3. ✗ Barcode of Living Database
4. ✗ Biology of Living Database

**Question Number : 66 Question Id : 630680331442 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

What is full form of FISH?

Options :

1. ✓ Fluorescence in situ hybridisation
2. ✗ Fluoropore in situ hybridisation
3. ✗ Fluorescent in silico hybridisation
4. ✗ Fluoropore in silico hybridisation

**Question Number : 67 Question Id : 630680331443 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

How many loci are available in Yfiler Plus PCR amplification kit?

Options :

1. ✗ 23
2. ✓ 27
3. ✗ 24
4. ✗ 21

**Question Number : 68 Question Id : 630680331444 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Thermus aquaticus is a typical gram-negative bacteria used for the preparation of _____ component used in PCR.

Options :

1. ✘ $MgCl_2$
2. ✘ DNTPs
3. ✔ DNA polymerase
4. ✘ BSA

**Question Number : 69 Question Id : 630680331445 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

What is the role of DNTPs in PCR?

Options :

1. ✘ Act as a co-factor to DNA strand.
2. ✔ Essential building blocks of nucleic acid molecules.
3. ✘ Provide stability to the PCR.
4. ✘ Denaturing of DNA.

**Question Number : 70 Question Id : 630680331446 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

The full form of SNP is:

Options :

1. ✘ Stranded Nuclei Polymorphism
2. ✘ Single Nucleotide Polytome
3. ✔ Single Nucleotide Polymorphism
4. ✘ Stranded Nucleotide Polytome

**Question Number : 71 Question Id : 630680331447 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

Which of the following is NOT a subsection of anthropology?

Options :

1. ✘ Socio-cultural
2. ✘ Linguistics
3. ✘ Biological
4. ✔ Odontology

**Question Number : 72 Question Id : 630680331448 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

_____ are collectively referred to as the biological profile.

Options :

1. ✔ Age, sex, ancestry and stature
2. ✘ Age, sex, religion and occupation

3. ✘ Sex, ancestry, religion and stature
4. ✘ Age, ancestry, occupation and stature

Question Number : 73 Question Id : 630680331449 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

_____ have a specialised ruffled acidic border that provides additional surface area for bone resorption.

Options :

1. ✘ Osteocytes
2. ✔ Osteoclasts
3. ✘ Osteoblasts
4. ✘ Odontoblasts

Question Number : 74 Question Id : 630680331450 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

_____ joints permit a great deal of movement.

Options :

1. ✘ Fibrous
2. ✘ Cartilaginous
3. ✔ Synovial
4. ✘ Synchondrosis

Question Number : 75 Question Id : 630680331451 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is NOT a cranial suture?

Options :

1. ✘ Sagittal
2. ✘ Coronal
3. ✔ Symphysis
4. ✘ Squamosal

Question Number : 76 Question Id : 630680331452 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The xiphoid process is a part of the _____.

Options :

1. ✘ hyoid
2. ✔ sternum
3. ✘ ribs
4. ✘ pelvis

**Question Number : 77 Question Id : 630680331453 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

_____ is the preferred skeletal element for sexual dimorphism.

Options :

1. ✓ Pelvis
2. ✗ Ribs
3. ✗ Humerus
4. ✗ Scapula

**Question Number : 78 Question Id : 630680331454 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

The pink and yellow forms used during DVI operations were given by:

Options :

1. ✓ INTERPOL
2. ✗ CBI
3. ✗ ICRC
4. ✗ FBI

**Question Number : 79 Question Id : 630680331455 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

Which of the following is NOT a principle of disaster management?

Options :

1. ✗ Rescue
2. ✗ Recovery
3. ✗ Reconciliation
4. ✓ Recognition

**Question Number : 80 Question Id : 630680331456 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Correct Marks : 2 Wrong Marks : 0.5**

The Phenice method is a visual method of sexing the _____.

Options :

1. ✗ cranium
2. ✗ humerus
3. ✗ ribs
4. ✓ pelvis

**Question Number : 81 Question Id : 630680331457 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Dribbling of saliva is a feature of:

Options :

1. ✓ antemortem hanging
2. ✗ strangulation
3. ✗ post-mortem hanging
4. ✗ drowning

**Question Number : 82 Question Id : 630680331458 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Bansdola is a form of strangulation by:

Options :

1. ✗ ligature
2. ✗ hands
3. ✓ wooden sticks
4. ✗ bend of elbow

**Question Number : 83 Question Id : 630680331459 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

The condition 'La facies sympathique' is observed in case of:

Options :

1. ✓ hanging
2. ✗ strangulation
3. ✗ throttling
4. ✗ railway accidents

**Question Number : 84 Question Id : 630680331460 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Diatoms are seen in the body in case of death due to:

Options :

1. ✗ strangulation
2. ✓ drowning
3. ✗ electrocution
4. ✗ asphyxia

**Question Number : 85 Question Id : 630680331461 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

The ligature mark is horizontal in:

Options :

1. ✖ judicial hanging
2. ✖ suicidal hanging
3. ✔ strangulation
4. ✖ dry drowning

**Question Number : 86 Question Id : 630680331462 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Diatoms in bone marrow are indicative of:

Options :

1. ✖ putrefaction
2. ✖ choking
3. ✔ drowning
4. ✖ strangulation

**Question Number : 87 Question Id : 630680331463 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

The National Tiger Conservation Authority was introduced under the Wild Life (Protection) Act, 1972, as per the amendment in the year _____.

Options :

1. ✖ 2002
2. ✖ 1991
3. ✔ 2006
4. ✖ 2017

**Question Number : 88 Question Id : 630680331464 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Species that are confined to a particular habitat in a protected area and not found anywhere else except that area are known as _____ species.

Options :

1. ✔ endemic
2. ✖ elusive
3. ✖ exotic
4. ✖ nocturnal

**Question Number : 89 Question Id : 630680331465 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

Species such as whale, dolphin, etc. are killed using _____ technique(s).

Options :

1. ✖ only electrocution

- ✘ only trapping
- ✔ only harpooning
- ✘ both trapping and electrocution

Question Number : 90 Question Id : 630680331466 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The process of sedating an animal for rehabilitation, translocation, radio-collaring, etc. using a dart gun is known as:

Options :

- ✘ poisoning
- ✔ tranquillising
- ✘ electrocution
- ✘ radartapping

Question Number : 91 Question Id : 630680331467 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

'Access and benefit-sharing' was formulated under the _____.

Options :

- ✘ Bern Convention
- ✘ Wild Life (Protection) Act
- ✔ Nagoya Protocol
- ✘ Environmental Protection Act

Question Number : 92 Question Id : 630680331468 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is NOT a red blood system?

Options :

- ✘ Kell
- ✘ Duffy
- ✘ ABO
- ✔ HLA

Question Number : 93 Question Id : 630680331469 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

When considering a sample instead of the entire population, by which symbol is the standard deviation denoted?

Options :

- ✔ Small S
- ✘ Ω

3. ✖ Capital S

4. ✖ σ

Question Number : 94 Question Id : 630680331470 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

_____ is/are the most frequently used natural indicator for determining soil pH.

Options :

1. ✖ Methyl red

2. ✖ Fluorescein

3. ✔ Hydrangeas

4. ✖ Anthraquinones

Question Number : 95 Question Id : 630680331471 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The optimal indicator for the titration of a strong acid and a mild base should have a pH range of:

Options :

1. ✖ 5-8

2. ✔ 4-6

3. ✖ 8-10

4. ✖ 7-8

Question Number : 96 Question Id : 630680331472 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Saponification is done by _____.

Options :

1. ✔ alkali hydrolysis

2. ✖ acids

3. ✖ salts

4. ✖ base hydrolysis

Question Number : 97 Question Id : 630680331473 Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

What happens to a crude oil fraction when its temperature falls below its boiling point?

Options :

1. ✖ It freezes.

2. ✖ It boils.

3. ✔ It condensates.

4. ✖ It melts.

**Question Number : 98 Question Id : 630680331474 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

The end point for an EDTA titration is usually found by using a/an _____ indicator.

Options :

1. ✓ metallochromic
2. ✗ redox
3. ✗ acid-base
4. ✗ precipitates

**Question Number : 99 Question Id : 630680331475 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

The components with greater affinity towards the stationary phase _____.

Options :

1. ✓ travel slow
2. ✗ travel fast
3. ✗ forms
4. ✗ gets dissolved

**Question Number : 100 Question Id : 630680331476 Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Correct Marks : 2 Wrong Marks : 0.5

What is the concentration of 36 g of water that fills 1 cubic metre?

Options :

1. ✗ 1 mole/m³
2. ✓ 2 mole/m³
3. ✗ 11 mole/m³
4. ✗ 22 mole/m³