

Q. No	Question	Correct Ans	Option1	Option2	Option3	Option4
1	Floatation method used for the analysis of glass samples is used to determine:	Density	Weight	Refractive Index	Density	Temperature
2	Some crystalline materials have two indices of refraction. The phenomenon is called:	Birefringence	Refraction	Double Refractive Index	Birefringence	Fringe Width
3	The first step taken to preserve an evidence on glass of the window should be to :	photograph it in detail	take it to the laboratory as soon as possible	immediately try to develop latent fingerprints	it is NOT worth preserving	photograph it in detail
4	The example of the Vegetable fibre is:	Jute fibre	Jute fibre	Silk fibre	Polyester fibre	Hair
5	Which is one of the preferred method for fibre analysis?	Fourier Transform Infrared Spectrophotometry	Density Gradient Method	Fourier Transform Infrared Spectrophotometry	Float test	Flame test
6	Microscopic fibres are best collected from clothing by means of :	sticking on transparent adhesive tape	sticking on transparent adhesive tape	shaking the article into a bag	a thorough brushing	tweezers
7	Which property of the molecule is best analysed using Infrared Absorption Spectroscopy?	Change in dipole moment	Luminescence properties	Change in dipole moment	Change in polarisability	Scattering of light

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8	Which is the source of Infrared radiation?	Nernst Glower	Helium Lamp	Hydrogen Lamp	Nernst Glower	Deuterium Lamp
9	An UV absorption spectrum is basically a combination of :	Electronic, Vibrational and Rotational forms of transition	Electronic, Vibrational and Diffraction forms of transition	Electronic, Vibrational and Rotational forms of transition	Vibrational, Diffraction and Scattering forms of transition	Electronic, Diffraction and Vibrational forms of transition
10	Which of the following has the shortest wave length?	Gamma rays	Infrared rays	Ultraviolet rays	Gamma rays	X rays
11	Which technique is non-destructive for identification and quantitation of trace elements of forensic samples?	Neutron Activation Analysis	ICP-Atomic Emission Spectrophotometry	Atomic Absorption Spectrophotometry	Neutron Activation Analysis	Spectrographic analysis
12	Which one is the major ingredient in the Cement composition?	Calcium Oxide	Silicon Dioxide	Iron oxide	Calcium Oxide	Aluminum Oxide
13	Mixture of Cement, Sand and Coarse Aggregate is called :	Concrete	Mortar	Reinforced Concrete	Concrete	Coarse Aggregate
14	The Ordinary Portland Cement (OPC) seized for forensic tests analysis is suitably packed in :	Steel container	Jute bag	Paper bag	Steel container	Cloth bag

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15	Control soil samples for forensic analysis is best collected in:	Steel container	Polythene bag	Paper bag	Steel container	Plastic container
16	Which of the following is used for comparing the questioned soil sample with the specimen soil samples?	At temp higher than the room temperature	At temp lower than the room temperature	At room temperature	At temp higher than the room temperature	At 4 degree centigrade
17	How should soil samples be preserved if they can't be subjected to forensic tests soon after collection?	Store in dry storage space at room temperature	Store in a dark and cool place	Store in dark and hot place	Store in dry storage space at room temperature	Store at 4 degree centigrade in refrigerator
18	Source of radiation recommended for identification of paint binders in a paint sample is:	Infrared	X-ray	Ultraviolet	Visible	Infrared
19	Which one of the following techniques is used to determine the elemental composition of inorganic pigments in a paint sample?	Emission Spectrometry	Infrared Spectrophotometry	Ultraviolet Absorption Spectrophotometry	Emission Spectrometry	Pyrolysis Gas Chromatography
20	Which technique is best suited for distinguishing most paint formulations?	Pyrolysis gas chromatography	Polarizing microscope	Comparison microscope	Pyrolysis gas chromatography	Visible light micro spectrophotometer
21	Karl Pearson's coefficient of correlation lies between	-1 to +1	-2 to +2	-1 to +1	Zero to +1	-1 to zero

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22	Which statistical term divides a set into two parts such that there is equal probability of falling above or below it?	Median	Average	Mean	Median	Mode
23	The best material for casting the indentation on metallic surface is:	Wood's metal	Plaster of Paris	Wood's metal	Dental Mass	Plasticine
24	Which mode of illumination is the best for studying striated tool marks?	Diffused light	Diffused light	Normal illumination	Axial illumination	Parallel illumination
25	For preservation of shoe print/tire marks on soft earth, the best way is:	Photography and casting	Rough /finished sketch	Photography and casting	With an electrostatic device	Using a high-voltage electrode
26	The oldest chemical method used to visualise latent fingerprints is:	Iodine fuming	Laser illumination	Cyanoacrylate ester fuming	Iodine fuming	Silver nitrate reagent
27	Which chemical method is used by most fingerprint experts, for visualising latent fingerprints on paper:	Ninhydrin	Silver nitrate	Ninhydrin	Iodine	Chlorate
28	The tire treads recorded on mouldable material such as earth, clay, snow etc. are known as:	Impressions	Prints	Impressions	Shadow	Imitations

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29	Which is NOT the international television video standards?	VHS	VHS	NTSC	PAL	SECAM
30	Aspect Ratio of an image or a display is:	Ratio of its width to height	Ratio of its width to diagonal	Ratio of its height to diagonal	Ratio of its width to height	Ratio of its diagonal to sum of width and height
31	In PAL video standard, the number of frames and number of fields in one second of video recording is:	25 frames and 50 fields	30 frames and 50 fields	25 frames and 50 fields	25 frames and 60 fields	30 frames and 60 fields
32	The video editing in digital video format is:	Non-linear editing	Sequential editing	In camera editing	Non-linear editing	Linear assemble editing
33	Which acoustic parameter is associated with the characteristic features of the oral cavity?	Formant frequencies	Pitch contour	Glottal Vibration	Fundamental frequency	Formant frequencies
34	Glass which is strengthened by introducing stress through rapid heating and cooling of its surface is called:	Tempered Glass	Leaded Glass	Tempered Glass	Insulated Glass	Laminated Glass
35	Which statement is true when a pointed object makes impact on a window glass pane?	Radial cracks appear first, starting on the side opposite to the impact side	Radial and Concentric fractures are formed simultaneously	Radial cracks appear first, starting on the side opposite to the impact side	Concentric fractures form first, on the same side as the applied force	Radial cracks form first, starting on the same side as the applied force

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36	A bright halo that is observed near the border of a glass particle when immersed in a liquid of different refractive index is known as:	Becke line	Birefringence	Boundary line	Becke line	Refraction point
37	In the case of firings through plate glass, concentric fractures are found on the:	Surface of impact	Surface of impact	Surface opposite to the impact	Edge of fractured sheet	Edge of shattered glass
38	Heat resistant glass contains a mixture of silica (75% to 80 %) and which one of the specific constituent (upto 15%):	Boron Oxide	Lead Oxide	Aluminium Oxide	Boron Oxide	Magnesium Oxide
39	Which one of the fibres is NOT the protein fibre?	Rayon	Rayon	Silk	Wool	Hair
40	Amongst natural occurring fibres, the highest ratio of fibre length and its diameter is found in:	Silk	Cotton	Silk	Linen	Jute
41	The most suitable forensic technique for polymer fibre content analysis is :	Fourier Transform Infrared Spectrophotometry	X-Ray Diffraction	Mass Spectrometry	Emission Spectrography	Fourier Transform Infrared Spectrophotometry
42	Tensile strength of a nylon rope is precisely measured by:	UTM (Universal Testing Machine)	Manually thorough pulling one end by a hanging weight	Manually thorough pulling at both ends by a hanging weights	UTM (Universal Testing Machine)	Anemometer

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43	Light that is confined to a single plane of vibration is used in the:	Polarising microscope	Comparison microscope	Polarising microscope	Compound Microscope	Stereo microscope
44	Sequence the electromagnetic waves in decreasing order of wavelength?	Radio waves, Microwaves, Infrared, Visible, Ultraviolet, X-rays, γ -rays	Radio waves, Ultraviolet, Microwaves, Infrared, X-rays, Visible, γ -rays	Radio waves, Infrared, Microwaves, Ultraviolet, Visible, γ -rays, X-rays,	Radio waves, Microwaves, Infrared, Visible, Ultraviolet, X-rays, γ -rays	X-rays, Radio waves, γ -rays, Microwaves, Visible, Infrared, Ultraviolet
45	Which confirmatory technique is considered specific for identification of a drug?	Infrared Spectrophotometry	Gas Chromatography	Visible Spectrophotometry	Ultra Violet Spectrophotometry	Infrared Spectrophotometry
46	The Optical components in the Infrared Spectrophotometer are made up of:	Sodium Bromide Crystal	Soda Glass	Quartz Crystal	Sodium Bromide Crystal	Plastic
47	The deviation in Beer- Lambert Law in absorption spectroscopy becomes evident in:	High concentration of absorbing molecule	Low concentration of absorbing molecule	Lower pH ionic strength	High concentration of absorbing molecule	Lower refractive index absorbing molecules
48	An instrument that measures the radiant power of two electromagnetic beams is called:	Photometer	Detector	Photometer	Filter	Monochromator
49	Approximate percentage range of Aluminium Oxide in Ordinary Portland Cement is:	3 - 8 %	17 - 25 %	3 - 8 %	3 - 10 %	4 - 15 %

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50	Which one of the following is added to the clinker to prevent the rapid reaction?	Gypsum	Tetra calcium Aluminoferrite	Gypsum	Water	Extra cement
51	Silica in excess in the ordinary portland cement causes:	The cement to set slowly	The cement to disintegrate	The cement to expand	The cement to set slowly	The cement to set rapidly
52	Ignition loss range for sandy soil due to organic matter, loss of combined water and portion of carbonate, will be:	2 – 5 %	2 – 5 %	20 – 25 %	30 – to 35 %	≈ 50 %
53	The turbidity test in the sandy soil sample when conducted experimentally:	Takes considerably longer time to settle	Takes considerably longer time to settle	Completely changes the color of solution	Rapidly turns almost 100% transparent	Remains (translucent) turbid
54	Which size of soil particles is termed as clay?	Under 0.002 mm	0.02 mm	0.2 mm	0.002 mm	Under 0.002 mm
55	The technique used for comparison of trace element profile of soil samples is:	Spectrographic Analysis	Microscopic Examination	Density Gradient Analysis	Flame Test	Spectrographic Analysis
56	The technique used for comparison of particle distribution profile of soil sample is called:	Density Gradient Analysis	Microscopic Examination	Density Gradient Analysis	Flame Test	Spectrographic Analysis

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57	For a normal distribution, the percentage of items included within the range of mean +/- 2 standard deviation is:	95.45	68.27	88.9	95.45	99.73
58	Compression tool marks are best formed by:	Firing pin	Firing pin	Wrench	Knife	Scissors
59	The most accurate statement about the footwear print evidence is:	It is formed when soles are contaminated with some foreign matter such as paint, ink, blood, dust that leaves a print on a firm base	It is often used as evidence	It is formed when the footwear treads are recorded in some mouldable material, such as clay, earth, snow	It is always readily visible	It is formed when soles are contaminated with some foreign matter such as paint, ink, blood, dust that leaves a print on a firm base
60	Fingerprints created, as a result of fingers touching against oil films or newly painted surface or thick layer of dust, are called:	Plastic prints	Latent prints	Invisible prints	Plastic prints	Contaminated prints
61	From the tire impressions left at the crime scene, it is possible to determine:	The style and /or manufacturer of the tire	The make and model of the vehicle	The speed at which the vehicle was moving	The style and /or manufacturer of the tire	The wear and mileage on the tire
62	The basis for determination of primary classification of fingerprints is:	The presence or absence of whorl patterns	The presence or absence of arch patterns	The presence or absence of whorl patterns	The presence or absence of loop patterns	The presence or absence of minutiae
63	The first textbook on the subject of fingerprints was written by:	Francis Galton	Henry Fauld	William Herschel	Francis Galton	Alphonse Bertillon

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64	Attempts to make one's fingerprint obscure/unclear/indistinct/blurred lead to:	The possibility of permanent scarring of fingertip which only provides new characteristics	Renewed efforts by the law enforcement agencies to categorize the obliterated fingerprints	The creation of new class of criminals who can avoid detection	The possibility of permanent scarring of fingertip which only provides new characteristics	Self-injurious behaviour that only results in the growth of new ridge characteristics on the fingertips
65	Glare in photography can be best removed by:	Using a polarising screen	Using a low intensity illumination	Using filters	Using a polarising screen	Using oblique light
66	Video-Conferencing can be classified as which type of communication:	Audio-Visual two way	Visual one way	Audio-Visual one way	Audio-Visual two way	Visual two way
67	What is required in order to estimate the speed of vehicle from the length of skid?	Test driving is required	Test driving is required	Information about the amount of damage caused to the vehicle(s) is required	Video footage of the accident is required	Eyewitness is required
68	The part of a tire that contacts the road surface and contains a design is called as:	Tire tread	Tire track	Tire tread	Vehicle stance	Trailer
69	The wavelength of x-ray:	10-.01 nm	750nm-1mm	350-700nm	10-400 nm	10-.01 nm
70	Thickness of a specimen entirely in focus under a microscope is known as:	Depth of Focus	Field of View	Depth of Focus	Magnification	None of the options