PREVIOUS YEAR PAPER

DSSSB Scientific Assistant (Ballistics) 2021 — 11 September 2021, Shift 3

DSSSB Other Posts · 11 September 2021 · Shift 3

129 of the paper's 200 questions · +1 for a correct answer, −0.25 for a wrong one · 120 minutes

Left out of the original paper: 71 (any question that needs a figure, a symbol or formatting we cannot show, or whose text did not read back cleanly from the booklet).

Questions from the Delhi Subordinate Services Selection Board's paper of 11 September 2021, Shift 3. Each question is followed by its answer, and the answer key is repeated on the last page.

Take it as a timed practice test: exambharo.com/dsssb-other-posts/previous-year-papers/dsssb-other-posts-2021-scientific-assistant-ballistics-11-sep-shift-3/

General Ability

1. Find the wrong term in the letter-cluster series given below:
TCRJ, YGWN, DRBR, IOGV, NSLZ

(a) YGWN
(b) DRBR
(c) IOGV
(d) NSLZ

Answer: (b)

2. Find the missing term in the following letter-clust eries given below:
J10T, O15Y, ? , Y25I, D30N

(a) S20C
(b) T20D
(c) C20D
(d) T20C

Answer: (b)

3. In the following question find out the alternative which will replace the question mark.
FILL : LRXX : : DAME : ?

(a) HBZJ
(b) HBJZ
(c) HBGZ
(d) HBZG

Answer: (a)

4. Select the letter triad from the given options which follows the same relation as shown below.
(RL, LM, HP)

(a) YQ, IB, RT

(b) PQ, JR, FU

(c) LO, VR, TT

(d) WU, IT, PO

Answer: (b)

5. If Q = 8.5 and JOY = 25, then how will you code FROZEN?

(a) 60

(b) 46

(c) 48

(d) 42

Answer: (d)

6. Five dresses are kept in a boutique having different price tags. Dress A is the second most expensive dress. Dress E is costlier than only one dress. Neither dress B nor dress D is the cheapest. Dress B is costlier than dress D.
Which dress is the cheapest?

(a) A

(b) C

(c) E

(d) D

Answer: (b)

7. In a class, Alan's rank was 20 from the top and [illegible] from the bottom. How many total students are there in class, if each student got a different rank?

(a) 78

(b) 77

(c) 38

(d) 79

Answer: (b)

8. Two statements are followed by two conclusions numbered I and II. You have to consider these statements to be true, even if they seem to be at variance with commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.
Statement:
Some desert is forest.
No forest is morning.
Conclusions:
(I) All forest is desert.
(II) No forest is desert.

(a) If only I follow

(b) If only II follows

(c) If either I or II follows

(d) If neither I nor II follows

Answer: (c)

9. Three statements are followed by two conclusions numbered I and II. You have to consider these statements to be true, even if they seem to be at variance with commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.
Statement:
Atleast some ministers are doctor.
Some doctors are policemen.
No policemen are driver.
Conclusions:
(I) Some doctors are driver.
(II) Some doctors are ministers.

(a) If only I follow

(b) If only II follows

(c) If both I and II follow

(d) If neither I nor II follows

Answer: (b)

10. Three statements are followed by three conclusions numbered I, II and III. You have to consider these statements to be true, even if they seem to be at variance with commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.
Statement:
All teachers are educated.
Some educated are school.
Some educated are room.
Conclusions:
(I) Some teacher are room.
(II) No teacher is room.
(III) Some school are not room.

(a) If only I follow

(b) If only II follows

(c) If only III follows

(d) If either I or II follows

Answer: (d)

11. Find the next term in the series.
229, 199, 171, 145, 121, ?

(a) 99
(b) 107
(c) 109
(d) 114

Answer: (a)

12. Study the following information carefully and answer the questions given below Statements:
$N \geq K > P$, $R < T \leq S$, $P \leq R$
Conclusion:
I. $K < T$
II. $R < S$

(a) If only conclusion I is true
(b) If only conclusion II is true
(c) If both conclusion I and conclusion II are true
(d) If neither conclusion I nor II is true

Answer: (b)

13. Which two signs should be interchanged in the following equation to make is correct?
24 – 12 ÷ 4 + 8 × 2 = 11

(a) + and ×
(b) – and ÷
(c) + and –
(d) + and ÷

Answer: (c)

General Awareness

21. Sangeet Natak Akademi - India's national academy of music, dance and drama was established in which of the following years?

(a) 1947
(b) 1951
(c) 1952
(d) 1958

Answer: (c)

22. What type of a Musical Instrument is Chenda?

(a) Avanaddha Vadya
(b) Tat Vadya
(c) Ghan Vadya
(d) Sushir Vadya

Answer: (a)

23. Which of the following is the agriculture related sector of the economy?

(a) Primary Sector
(b) Secondary Sector
(c) Tertiary Sector
(d) Quaternary Sector

Answer: (a)

24. Sarva Siksha Abhiyan was a significant step towards providing elementary education to all children in which of the following age groups?

(a) 7-15 Years
(b) 6-14 Years
(c) 8-14 Years
(d) 8-18 Years

Answer: (b)

25. Which of the following is known as a situation where labour that is employed in a job is not actually utilised for the production of goods and services?

(a) Frictional Unemployment
(b) Seasonal Unemployment
(c) Disguised Unemployment
(d) Cyclical Unemployment

Answer: (c)

26. Which of the following is not a unit of Electric P[illegible]er?

(a) Watts
(b) Joule per second
(c) Volt per metre
(d) Calorie per second

Answer: (c)

27. The sharp and loud sound produced due to the air pressure variation associated with shock waves produced by a supersonic aircraft are called as:

(a) Echo
(b) Sonic Boom
(c) Infrasound
(d) Doppler Effect

Answer: (b)

28. The 'slash and burn' agriculture in Assam is known as which of the following?

(a) Bewar
(b) Dahiya
(c) Jhumming
(d) Khuruva

Answer: (c)

29. Which among the following is a Kharif Crop?
    (a) Wheat
    (b) Maize
    (c) Barley
    (d) Mustard
    Answer: (b)

30. Kitab ul-Hind was written by who among the following?
    (a) Al-Biruni
    (b) Visakdutta
    (c) Abul Fazal
    (d) Malik Mohammad Jaisi
    Answer: (a)

31. Which of the following Harappan city was divided into three parts rather than two parts?
    (a) Harappa
    (b) Dholavira
    (c) Mohenjo Daro
    (d) No Harappan city was divided into three parts
    Answer: (b)

32. On 8 April 1857, a young soldier, Mangal Pandey, was hanged to death for attacking his officers at which place?
    (a) Meerut
    (b) Lucknow
    (c) Oudh
    (d) Barrackpore
    Answer: (d)

33. The book "Midnight's Children" was written by-
    (a) Arundhati Roy
    (b) Salman Rushdie
    (c) Jhumpa Lahiri
    (d) Chetan Bhagat
    Answer: (b)

34. Who among the following won the Man Booker prize in 2020?
    (a) Margaret Atwood
    (b) Shuggie Bain
    (c) Bernardine Evaristo
    (d) Milkman
    Answer: (b)

35. The first village to achieve 100 percent vaccination against COVID 19 lies in which of the following?

(a) Jammu and Kashmir
(b) Bihar
(c) Punjab
(d) Haryana

Answer: (a)

36. Which of the following countries has become the first country to accept 'Bitcoin' as legal tender?

(a) Luxemburg
(b) Germany
(c) USA
(d) El-Salvador

Answer: (d)

37. Indian National Congress made the demand for a Constituent Assembly in which of the following years?

(a) 1927
(b) 1905
(c) 1901
(d) 1934

Answer: (d)

38. Which of the following articles of the Indian Cor .ution provides that the business in Parliament should be transacted in Hindi o' Eng' ?

(a) 116
(b) 118
(c) 120
(d) 122

Answer: (c)

39. Which of the following amendment provides for the Three Tier Panchayat System?

(a) 91st Amendment
(b) 85th Amendment
(c) 73rd Amendment
(d) 55th Amendment

Answer: (c)

40. Which of the following Indian athletes recently won silver medal in weight lifting at the Olympic Games Tokyo 2020?

(a) Mirabai Chanu
(b) Ramesh Phogat
(c) Sakshi Malik
(d) Priya Malik

Answer: (a)

Arithmetic Ability

45. The average age of a family of five members is 24 years. If the present age of the youngest member is 8 years, then what was the average age of the family at the time immediately before the birth of the youngest member?

(a) 24 years
(b) 28 years
(c) 16 years
(d) 20 years

Answer: (d)

46. The age of Raghu is 60 percent of the sum of his age and the age of his brother Raghav. The age of Raghu is what percent of the age of Raghav?

(a) 150 percent
(b) 75 percent
(c) 50 percent
(d) 200 percent

Answer: (a)

47. If 45 percent of (x - y) = 30 percent of(x + y), then what percent of x is y?

(a) 15 percent
(b) 18 percent
(c) 20 percent
(d) 23 percent

Answer: (c)

48. A shopkeeper bought pens at the rate of 16 for Rs 40 and sold them at a profit of 40 percent. How many pen should he sell to a customer for Rs 28?

(a) 12
(b) 2
(c) 8
(d) 5

Answer: (c)

49. A shopkeeper buys some rice for Rs 5400. He sells one third of it at a loss of 5 percent. At what percent gain should he sell the remaining rice so as to make an overall profit of 15 percent on the whole transaction?

(a) 15 percent
(b) 20 percent
(c) 25 percent
(d) 22.50 percent

Answer: (c)

50. 500 gm of sugar solution has 45 percent sugar in it by weight. How much sugar must be added in the solution to make it 60 percent sugar solution (by weight)?

(a) 175.5 gm

(b) 195.5 gm

(c) 187.5 gm

(d) 182.5 gm

Answer: (c)

51. At a fruit shop, the price of a mango is 40 percent less than that of an apple. Instead of buying only apples, a person buys some mangoes in place of some apples and saves 30 percent of the money. What is the ratio of the number of mangoes to apples purchased?

(a) 3 : 1

(b) 4 : 1

(c) 2 : 3

(d) 5 : 2

Answer: (a)

52. Rahul invested Rs. 18,000 in a scheme offering simple interest at the rate of 13 percent p.a. for 5 years and 9 months. Find the interest earned by him.

(a) Rs. 11,765

(b) Rs. 13,455

(c) Rs. 15,945

(d) Rs. 12,945

Answer: (b)

53. Difference in the speed of two trains A and B is 5 km/hr. If A takes 3 hours less time to travel a distance of 300 km than train B takes to travel a distance of 200 km. Find the sum of their speeds.

(a) 75 km/hr

(b) 85 km/hr

(c) 95 km/hr

(d) 105 km/hr

Answer: (b)

54. A motorboat can travel at 10 km/hr in still water. It travelled 91 kms downstream in a river and then returned to the same place, taking altogether 20 hrs. The rate of flow of river is :

(a) 9 km/h

(b) 6 km/h

(c) 3 km/hr

(d) 7 km/hr

Answer: (c)

56. A piece of work can be done by a 6 men and 5 women in 8 days. The same work can be done by 3 men and 2 women in 17 days. In how many days can 15 men and 4 women together do the same work?

(a) 8

(b) 6

(c) 5

(d) 4

Answer: (d)

58. An isosceles triangle with each equal side measuring 5 cm and the base measuring 8 cm has a median drawn to its base. Find its length.

(a) 3 cm

(b) 4 cm

(c) 5 cm

(d) 6 cm

Answer: (a)

59. In a Mathematics exam, Sanjana is ranked 13th from the top and 38th from the bottom. How many students appeared for the exam?

(a) 49

(b) 52

(c) 51

(d) 50

Answer: (d)

General English

61. In the following question, some parts of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No error'.
The competent authority must ensure that the victims of political violence in Bengal are able to return to its homes.

(a) The competent authority must ensure that

(b) the victims of political violence in Bengal

(c) are able to return to its homes.

(d) No error

Answer: (c)

62. In the following question, some parts of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.
Only a small proportion of firms shared additional cost burdens with their clients, resulting in a marginal increase in service fees.

(a) Only a small proportion of firms shared additional

(b) cost burdens with their clients, resulting in

(c) a marginal increase in service fees.

(d) No error

Answer: (d)

63. Select the most appropriate option to substitute the bracketed part in the given sentence. If there is no need to substitute the bracketed part, select 'No improvement'.
There was (any difficult) in understanding the introduction and the instructions for completion of the questionnaire.

(a) no difficult

(b) not difficulty

(c) no difficulty

(d) No improvement

Answer: (c)

65. Select the most appropriate word to fill in the blank
Rishabh always _____ illness when he is asked to [illegible]ousehold chores.

(a) feigns

(b) espouses

(c) fells

(d) Falls

Answer: (a)

66. Select the most appropriate word to fill in the blank.
We are already witnessing the effects of climate change, and now is the moment when we must accelerate our efforts_____we are to avoid the worst consequences.

(a) Then

(b) So

(c) If

(d) That

Answer: (c)

67. In the following question given below, a sentence is given provided with two blanks. Choose the correct combination of words that fit into the corresponding blanks.
Among the sensory organs, the most important experience living beings _____is ocular experience. Ocular experience is _____ through the optical nerves.

(a) acquire, received

(b) acquired, receive

(c) acquiring, receives

(d) acquires, receiving

Answer: (a)

68. In the following question given below, a sentence is given provided with two blanks. Choose the correct combination of words that fit into the corresponding blanks.
The vibrational manifestations come in contact _____ the living being _____ different cells and organs.

(a) on, into

(b) upon, out

(c) with, through

(d) off, over

Answer: (c)

69. The question consists of four statements labelled P, Q, R, and S, which, when logically arranged, form a coherent passage. Choose the option that represents the most logical order.
P: In other countries, frustration exists because these countries are populated by 'haves'.
Q: In some countries, frustration exists because these countries are populated by 'have-nots'.
R: Frustration is global cancer.
S: It has spared no country.

(a) RSQP

(b) SQRP

(c) PSRQ

(d) QRPS

Answer: (a)

70. Select the most appropriate synonym for the given word.
THRIFTY

(a) rigid

(b) grand

(c) frugal

(d) discreet

Answer: (c)

71. Select the antonym of the given word.
GIGANTIC

(a) Tiny
(b) Huge
(c) Enormous
(d) Vast

Answer: (a)

72. Select the correctly spelt word.

(a) Coherant
(b) Advicable
(c) Tommorow
(d) Commendation

Answer: (d)

73. Select the correctly spelt word.

(a) Mamoths
(b) Nicotien
(c) Rickshaw
(d) Platypous

Answer: (c)

74. In the following question, out of the four options, ect the one that best expresses the meaning of the idiom/phrase.
Cut the mustard.

(a) To fulfil expectations and do a good job.
(b) To reduce expenses.
(c) To understand the details of an extensive subject.
(d) To come to the main point of a discussion.

Answer: (a)

75. Select the word which means the same as the following group of words.
Changing mood very quickly.

(a) Acumen
(b) Volatile
(c) Fanatic
(d) Impulsive

Answer: (b)

76. From the sky it was frighteningly clear that the city was under siege. Why?

(a) Because of the recent military exercise that took place in the city
(b) Because hays were being burnt across the city
(c) Because the city was dragged into war like situation
(d) Because the city was caught in a cycle of insufferable heat fuelling conflagrations

Answer: (d)

77. What does the writer mean by the line: “Infernos (seemingly redolent) of Dante’s hell had incinerated everything in their path”?

(a) some of the places were kept safe from burning

(b) every important place or thing was incinerated by the fires

(c) all important things and places were engulfed in the water

(d) some of the places and respites could be saved from the flood

Answer: (b)

Discipline1

101. The constraints involved when a particle is restricted to move along a curve of surface area is called as _____.

(a) Non -holonomic

(b) Holonomic

(c) Scleronomic

(d) Rheonomic

Answer: (b)

102. If external torque acting on a system of particles is zero, the angular momentum of the system remains _____.

(a) Maximum

(b) Minimum

(c) Zero

(d) Constant

Answer: (d)

103. tan x wave function is not acceptable in quantum mechanics due to _____.

(a) Tan $x \to \infty$ at $x=\pi/2$

(b) Tan $x \to 0$ at $x=0$

(c) Tan $x \to 1$ at $x=\pi/4$

(d) Tan $x \to \sqrt{3}$ at $x=\pi/3$

Answer: (a)

104. The Gradient of scalar function is _____ quantity.

(a) Scalar

(b) Vector

(c) Tensor

(d) Not a physical

Answer: (b)

105. At the absolute zero of temperature the maximum kinetic energy that a free electron can have is called_____.

(a) Fermi energy

(b) Thermal energy

(c) Electron energy

(d) Mechanical energy

Answer: (a)

106. An electron gas obeys the Maxwell -Boltzmann statistics. Calculate the average thermal energy in the system at 100K.

(a) 207 $\times 10^{-23}$J

(b) 200$\times 10^{-23}$J

(c) 250$\times 10^{-23}$J

(d) 150$\times 10^{-23}$J

Answer: (a)

107. The artificially made unstable nuclei are called_____.

(a) Radio - isotopes

(b) Isobars

(c) Isomers

(d) Nuclear reactors

Answer: (a)

108. One atomic mass unit is _____.

(a) 1.66×10^{-27}kg

(b) 1.00×10^{-27}kg

(c) 1.66×10^{-31}kg

(d) 1.00×10^{-31}kg

Answer: (a)

109. The method of obtaining population inversion is called as _____.

(a) Spontaneous emission

(b) Stimulated emission

(c) Optical pumping

(d) Induced absorption

Answer: (c)

110. The device that converts AC into DC is called _____.

(a) Inductor

(b) Rectifier

(c) Capacitor

(d) Resistor

Answer: (b)

111. The digital circuit which converts the data into coded form is called _____.

(a) Encoder
(b) Decoder
(c) Diode
(d) Filter

Answer: (a)

112. _____ is the device used to accelerate electrons to very high energies.

(a) Cyclotron
(b) Magnetron
(c) Betatron
(d) Synchrotrons

Answer: (c)

113. The conductivity of an ideal dielectric is _____.

(a) Maximum
(b) Minimum
(c) Zero
(d) Infinity

Answer: (c)

114. The maximum displacement of the wave on any one side of its mean position is called as _____.

(a) Wavelength
(b) phase length
(c) Amplitude
(d) Period

Answer: (c)

115. Materials with at least one of the dimensions measuring less then 100nm are called as _____.

(a) Nanomaterial
(b) Semiconductor
(c) Micromaterial
(d) Macromaterial

Answer: (a)

116. When the coulombic repulsion between the atoms in a cluster grows beyond the binding energy between the atoms, the cluster explodes . This explosion is called as_____.

(a) Nuclear explosion
(b) Mechanical explosion
(c) Coulombic explosion
(d) Atomic explosion

Answer: (c)

117. Most commonly applied technique in the mass production of integrated circuits is _____.

(a) Photolithography
(b) X- ray lithography
(c) Electron beam lithography
(d) Ion beam lithography

Answer: (a)

118. Scanning tunnelling microscopy works on the principle of _____.

(a) Quantum mechanical phenomenon
(b) Refraction
(c) Total internal reflection
(d) Photoelectric effect

Answer: (a)

119. _____ is a technique that enables a wavefront to be recorded and later re-constructed.

(a) Holography
(b) Rectification
(c) Amplification
(d) Merging

Answer: (a)

120. The spectra which appears due to scattering of r ation by the vibrating molecule is_____.

(a) I R spectra
(b) Raman spectra
(c) Visible spectra
(d) Alkali spectra

Answer: (b)

Discipline2

121. An electron and a positron annihilate to produce_____.

(a) Photon
(b) Neutron
(c) Electron
(d) Meson

Answer: (a)

122. An elementary particle of the baryon group having greater mass than a nucleon is called _____.

(a) Electrons
(b) Hyperons
(c) Neutrons
(d) Mesons

Answer: (b)

123. The _____ is a predicted physical phenomenon whereby a strong electric field creates matter.

(a) Schwinger effect
(b) Photoelectric effect
(c) Hall effect
(d) Starck's effect

Answer: (a)

124. The rate of energy travelled through per unit area i.e. the amount of energy flowing through per unit area in the perpendicular direction to the incident energy per unit time is called_____.

(a) Poynting vector
(b) Null vector
(c) Unit vector
(d) Parallel vector

Answer: (a)

125. _____ is used to determine the material whether it is a metal, semiconductor or insulator.

(a) Hall effect
(b) Tyndall effect
(c) Photoelectric effect
(d) Meissner effect

Answer: (a)

126. Purest form of semiconductor is called as_____ _____.

(a) Extrinsic semiconductor
(b) Intrinsic semiconductor
(c) Resistor
(d) Inductor

Answer: (b)

127. Charged particles in plasma usually gets interacted by_____.

(a) Strong nuclear force
(b) Coulomb 's force
(c) Gravitational force
(d) weak nuclear force

Answer: (b)

128. The surface temperature of stars ranging from 6500 K to 7500 K belong to _____.

(a) Class A spectra
(b) Class F spectra
(c) Class G spectra
(d) Class K spectra

Answer: (b)

129. The quantity which gives the stars actual energy output or the luminosity is called_____.

(a) Absolute magnitude

(b) Apparent magnitude

(c) Apparent brightness

(d) Stellar spectra

Answer: (a)

130. What is the fictious force on a body of mass 4 kg relative to a frame of reference moving vertically upwards on the earth with an acceleration of 10 m/s^2.

(a) - 40 N

(b) 50N

(c) 40N

(d) 30N

Answer: (a)

131. A set of vectors which are normalised to unity then the set is called _____.

(a) Universal set

(b) Singleton set

(c) Orthogonal set

(d) Orthonormal set

Answer: (c)

132. The eigen values of Hermitian matrix are _____ _____.

(a) Real

(b) Non -real

(c) Unit modulus

(d) Orthogonal

Answer: (a)

133. _____ is a feed back control system in which the output is mechanical poistion, velocity or acceleration.

(a) Servomechanism

(b) Closed loop system

(c) Process control system

(d) Bode plot

Answer: (a)

134. The dynamic of fluid parcels is described with the help of _____.

(a) Gauss law

(b) Newton's second law

(c) Newton's first law

(d) Newton's third law

Answer: (b)

135. In forensics, which discipline is used for the examination of bite marks and dental identification of corpses?

(a) Dentomology
(b) Odontology
(c) Palynology
(d) Polygraphy

Answer: (b)

136. Which of the following injury helps to ascertain Raised carboxyhaemoglobin in the blood?

(a) Lacerations injury
(b) Incised injury
(c) Abrasion injury
(d) Burn injury

Answer: (d)

137. What is the etching technique used to restore obliterated engraved marks on steel surface?

(a) Chemical etching
(b) Sodium hydroxide etching
(c) Aqua regia etching
(d) Flat solutions etching

Answer: (a)

138. In which of the following technique, the stationary phase is a thin layer of alumina or silica on a plate?

(a) Mass Spectrometry
(b) Thin layer chromatography
(c) High-performance liquid chromatography
(d) Gas chromatography

Answer: (b)

139. Which of the following instrumental method has detectors like TCD, ECD and AED with detection limits as 500 pg/ml, 5 fg/s and 1 pg respectively?

(a) X-ray diffractometry
(b) Isoelectric focusing
(c) IR spectrophotometry
(d) Gas chromatography

Answer: (d)

140. The pattern in which the majority of ridges from loops and one or more ridges recurve at the core to form a Pocket is known as

(a) Twin loop pattern
(b) Accidental pattern
(c) Central pocket loop
(d) Lateral pocket loop

Answer: (c)

Discipline3

141. Which of the following is NOT the basic method of recording footwear impressions at the crime scene?

(a) Tran-scripting the recording process

(b) Documentation./sketching

(c) Casting

(d) Lifting

Answer: (a)

142. Which of the following type of footprints are caused by skin folds of the plantar surface of the foot.

(a) Phalange marks

(b) Crease marks

(c) Deformity marks

(d) Crack marks

Answer: (b)

143. A heavy coating of _____ it the imprint from smooth, non-delicate surfaces such as tile, metal counters etc.

(a) Gelatin

(b) Adhesive

(c) Electrostatic dust

(d) Rubber

Answer: (b)

144. Identify the correct measure of dispersion fr..n the following descriptive statistics used in forensic research?

(a) Proportion

(b) Mode

(c) Standard deviation

(d) Arithmetic mean

Answer: (c)

145. Suppose that in a country, the percentages of being a homicide victim are 88% and 12% for males and females, respectively. Then, the probability that among randomly selected 10 homicide victims, at least 4 of them are female can be calculated by using

(a) Normal distribution

(b) Binomial distribution

(c) Poisson distribution

(d) Exponential distribution

Answer: (b)

146. Which of the following biological evidence is a mixture of secretions by three salivary glands and is used to detect the blood-group substances?

(a) Sperm
(b) Semen
(c) Urine
(d) Saliva

Answer: (d)

147. Bloodstains fallen from the height of 50 to 150 centimeters is indicated with

(a) Small spike like projections along the edges
(b) Corrugated edges
(c) Round sharp edges
(d) Rectangular rugged edges

Answer: (a)

148. What is the quantity of DNA present in one shed hair? (Choose most approximate and most relevant value)

(a) 6 pico gram
(b) 15 microgram
(c) 10 nano gram
(d) 1 miligram

Answer: (c)

149. In tooth eruption sequence, the mixed dentition exists from approximately age

(a) 2 to 2.5 years
(b) 2.5 to 6 years
(c) 6 years to 12 years
(d) 12 years to 16 years

Answer: (c)

150. Which of the following disease most usually affect areas comprising memory, visual-spatial, linguistic, consideration and administrative function?

(a) Amnesia
(b) Confabulation
(c) Delirium
(d) Dementia

Answer: (d)

151. In which of the following psychiatric disorder, structural or physiological dysfunction directly or indirectly affecting the brain is known to cause the psychosis?

(a) Mental retardation
(b) Organic psychosis
(c) Functional psychosis
(d) Neurotic disorders

Answer: (b)

152. Which of the following sexual deviation is a perversion in which the personality is dominated by the desire to be identified with the opposite sex?

(a) Transvestism
(b) Fetishism
(c) Exhibitionism
(d) Masochism

Answer: (a)

153. Luminol test is an example of which of the following type of analysis commonly used to identify the substance in forensic science laboratories?

(a) Presumptive analysis
(b) Confirmatory analysis
(c) Pessimistive analysis
(d) Resistive analysis

Answer: (a)

154. Which of the following type of toxicology gathers and evaluates existing toxicological information to establish concentration-based standards of "safe" exposure?

(a) Forensic toxicology
(b) Occupational toxicology
(c) Regulatory toxicology
(d) Analytical toxicology

Answer: (c)

155. _____ poisoning is caused by an exces[illegible] sin[illegible] dose, or several dose of a poison taken over a short interval of time

(a) Chronic
(b) Acute
(c) Sub-Acute
(d) Fulminating

Answer: (b)

156. Which of the following statement with regard to gun powder is true?

(a) It is mostly used in muzzle loading and blank cartridges
(b) It remains fairly dynamic, if kept dry, over short period.
(c) The basic constituents are nitroglycerin and nitrocellulose
(d) The modern high velocity era started with the use of this powder

Answer: (a)

157. Identify the INCORRECT listed wads in shotgun ammunition?

(a) Cushion wad
(b) Over-powder wad
(c) Under-powder wad
(d) Over-shot wad

Answer: (c)

158. Which of the following is the chemical test for GSR identification mainly used for detection of propellant particles in range of firing estimations?

(a) Sodium Rhodizonate test

(b) Di-Thio-Oxamide(DTO) test

(c) Maxwell test

(d) Greiss test

Answer: (d)

159. Identify the Do's in case of forgeries in documents?

(a) Mark the relevant portions of disputed document abruptly

(b) Make the suspect comfortable while obtaining sample writings

(c) Ignore the inferior quality of paper of important documents

(d) The blank documents should be discarded once looking

Answer: (b)

160. Any mark commonly produced during the creation of a document that helps to identify its source is known as

(a) Individualizing Characteristic

(b) Collected Known Specimens/Standards

(c) Obliterations

(d) Requested Known Specimens/Standards

Answer: (a)

Discipline4

161. What is minimum number of photographs ... ould be taken for dead body at the crime scene?

(a) 2

(b) 3

(c) 4

(d) 6

Answer: (c)

162. Identify the kind of evidence which is classified as volatile digital evidence?

(a) PDA data

(b) RAM data

(c) Tablets data

(d) Floppy data

Answer: (b)

163. Identify the forensic discipline that combines elements of law and computer science to collect and analyze data from computer systems, networks etc.

(a) Computer forensics
(b) Basic law forensics
(c) Data forensics
(d) Electronic forensics

Answer: (a)

164. Which of the following is NOT the application of scanning electron microscope?

(a) High resolution surface imaging
(b) Examination of non-conducting materials
(c) Fluorescent bulb investigation at traffic accidents
(d) Investigation of gemstones and jewelry

Answer: (c)

165. Which method of analysis of glasses are specially significant for the analysis of solid materials in the forensics and are often the only methods that allow further differentiation of materials under laboratory conditions?

(a) X-ray diffraction techniques
(b) Inductively coupled plasma atomic emission spectroscopy
(c) Raman spectroscopy
(d) Infrared spectroscopy

Answer: (a)

166. _____is a simplest type of security att[illegible] sca[illegible]ging of resources that has been thrown away.

(a) Eavesdropping
(b) Dumpster diving
(c) Masquerade
(d) Data diddling

Answer: (b)

167. Which of the following method has explained 20 gradual stages of development of tooth starting from 4 months till 20 years of age in the form of charts?

(a) Demirjian's method
(b) Schour and Massler's method
(c) Third molar's method
(d) Compound method

Answer: (b)

Answer key

Answer key from the Delhi Subordinate Services Selection Board's official answer key for this sitting. "—" means the key gave none.

General Ability

1	**(b)**	2	**(b)**	3	**(a)**	4	**(b)**	5	**(d)**	6	**(b)**
7	**(b)**	8	**(c)**	9	**(b)**	10	**(d)**	11	**(a)**	12	**(b)**
13	**(c)**										

General Awareness

21	**(c)**	22	**(a)**	23	**(a)**	24	**(b)**	25	**(c)**	26	**(c)**
27	**(b)**	28	**(c)**	29	**(b)**	30	**(a)**	31	**(b)**	32	**(d)**
33	**(b)**	34	**(b)**	35	**(a)**	36	**(d)**	37	**(d)**	38	**(c)**
39	**(c)**	40	**(a)**								

Arithmetic Ability

45	**(d)**	46	**(a)**	47	**(c)**	48	**(c)**	49	**(c)**	50	**(c)**
51	**(a)**	52	**(b)**	53	**(b)**	54	**(c)**	56	**(d)**	58	**(a)**
59	**(d)**										

General English

61	**(c)**	62	**(d)**	63	**(c)**	65	**(a)**	66	**(c)**	67	**(a)**
68	**(c)**	69	**(a)**	70	**(c)**	71	**(a)**	72	**(d)**	73	**(c)**
74	**(a)**	75	**(b)**	76	**(d)**	77	**(b)**				

Discipline1

101	**(b)**	102	**(d)**	103	**(a)**	104	**(b)**	[illegible]	**(a)**	106	**(a)**
107	**(a)**	108	**(a)**	109	**(c)**	110	**(b)**	111	**(a)**	112	[illegible]3
(c)	114	**(c)**	115	**(a)**	116	**(c)**	117	**(a)**	118	**(a)**	119
(a)	120	**(b)**									

Discipline2

121	**(a)**	122	**(b)**	123	**(a)**	124	**(a)**	125	**(a)**	126	**(b)**
127	**(b)**	128	**(b)**	129	**(a)**	130	**(a)**	131	**(c)**	132	**(a)**
133	**(a)**	134	**(b)**	135	**(b)**	136	**(d)**	137	**(a)**	138	**(b)**
139	**(d)**	140	**(c)**								

Discipline3

141	**(a)**	142	**(b)**	143	**(b)**	144	**(c)**	145	**(b)**	146	**(d)**
147	**(a)**	148	**(c)**	149	**(c)**	150	**(d)**	151	**(b)**	152	**(a)**
153	**(a)**	154	**(c)**	155	**(b)**	156	**(a)**	157	**(c)**	158	**(d)**
159	**(b)**	160	**(a)**								

Discipline4

161	**(c)**	162	**(b)**	163	**(a)**	164	**(c)**	165	**(a)**
166	**(b)**	167	**(b)**						