PREVIOUS YEAR PAPER

DSSSB Laboratory Assistant (Documents) 2021 — 24 October 2021, Shift 1

DSSSB Other Posts · 24 October 2021 · Shift 1

164 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: 36 (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 24 October 2021, Shift 1. 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-laboratory-assistant-documents-24-oct-shift-1/

General Ability

1. Arrange the words in the meaningful sequence:- 1. Flower, 2. Plant, 3. Fruit, 4. Seed, 5. Soil

(a) 1, 2, 5, 4, 3
(b) 1, 3, 5, 4, 2
(c) 5, 2, 1, 3, 4
(d) 3, 2, 4, 5, 1

Answer: (c)

2. Find the next term in the series.
BKD, DMA, FPX, ?

(a) FDA
(b) HTU
(c) HUR
(d) ADF

Answer: (b)

3. Out of the given options, three are similar in a certain manner. However, one option is NOT like the other three. Select the option which is different from the rest.

(a) Optimist - Pessimist
(b) Protagonist - Antagonist
(c) Confident - Assertive
(d) Abundant - Scare

Answer: (c)

4. Out of the given options, three are similar in a certain manner. However, one option is NOT like the other three. Select the option which is different from the rest.

(a) Maize
(b) Pearl millet
(c) Oats
(d) Bamboo

Answer: (d)

5. Select the pair that is related to each other in the same manner as the given pair is related to each other.
Day : Minutes :: ?

(a) Watch : Time

(b) Circle : Degrees

(c) Month : Year

(d) Square : Right angles

Answer: (b)

6. In a certain code if KEYBOARD is written as DYEOBRAK, then ORDINARY will be written as:

(a) YDRNIRAO

(b) ROIDANYR

(c) DRONIYRA

(d) IDROYRAN

Answer: (a)

7. A particular shopkeeper uses the code name "LSOAPIGE" with a value 36 where L= Rs.3,S= Rs. 4, O=Rs. 5 and so on. Which item is sold for Rs.28 in the shop?

(a) SOAP

(b) OIL

(c) EGG

(d) GEL

Answer: (c)

8. In a class, Karambir got more marks than Kiran and Karan got more marks than Kamaljeet and Kamalpreet. Karan and Kiran got equal marks.
Who among the following scored highest ?

(a) Kamalpreet

(b) Karambir

(c) Kamaljeet

(d) Kiran

Answer: (b)

9. Tina, Meena, Sameena, Amina, Leena and Reena are sitting around a circle facing the centre under the following conditions:
1. Reena is sitting second to the left of Tina who lies at the immediate right of Meena.
2. Amina is facing Tina and Leena is not facing Meena.
Who is second to the right of Tina?

(a) Leena

(b) Sameena

(c) Meena

(d) Reena

Answer: (b)

10. In the question given below, an assertion is given, followed by a reason. You have to decide whether the assertion is true, reason is true or both are true and if the reason is the correct explanation of the assertion.
Assertion- UN calls to halt eviction of one lakh residents of Haryana Khori village.
Reason- UN is the organisation which works on creating wars between the nations.

(a) Assertion is true, reason is false

(b) Assertion is false, reason is true

(c) Both assertion and reason are true, reason is the correct explanation of the assertion

(d) Both assertion and reason are true, reason is not the correct explanation of the assertion

Answer: (a)

11. In the question given below, a statement is given, followed by two arguments I and II. You have to consider the statement to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given arguments is strong.
Statement- Government of a certain overpopulated poor country introduced a population bill where people having more than 2 children will not be given government privileges and further promotion in their current jobs.
Argument I- Yes, it is one disincentive to discourage couples from giving birth to many children.
Argument II- No, these kind of pressure tactics should not be used as this is the mutual decision between a married couple.

(a) Only argument I is strong

(b) Only argument II is strong

(c) Neither I nor II is strong

(d) Both arguments are strong

Answer: (d)

12. Select the option that is related to the third [illegible]on the same basis as the second term is related to the first term.
17 : 272 :: 14 : ?

(a) 791

(b) 221

(c) 182

(d) 197

Answer: (c)

13. Find the missing number.
975, 319, 753, ___

(a) 213

(b) 159

(c) 179

(d) 197

Answer: (d)

15. Two friends A and B started walking from the same point in the different directions. A turns 90 degrees clockwise and B turns 90 degrees anticlockwise after which both comes in the same direction that is east. What can be their initial positions?

(a) East and North
(b) North and South
(c) West and South
(d) North and West

Answer: (b)

16. A man started walking from his house 9m in north direction and then turned to east and walked another 40m. How far he is from his starting point?

(a) 31 m
(b) 41 m
(c) 35 m
(d) 42 m

Answer: (b)

General Awareness

21. The shape of the main temple tower is known as _____ in Tamil Nadu.

(a) Vimana
(b) Garbh
(c) Bahya
(d) Choti

Answer: (a)

22. Theravada, Mahayana and Vajrayana are three main classifications of _____.

(a) Sikh Doctrine
(b) Persian Writings
(c) Jain Doctrine
(d) Buddhist Doctrine

Answer: (d)

23. When was the Reserve Bank of India established?

(a) 1947
(b) 1949
(c) 1935
(d) 1934

Answer: (c)

24. Paid out cost is _____of production in micro economics.
    (a) explicit cost
    (b) cost per unit
    (c) tax
    (d) implicit cost
    Answer: (a)

25. Which among the following is the hardest natural occurring substance found on Earth?
    (a) Aluminium
    (b) Diamond
    (c) Iron
    (d) Gold
    Answer: (b)

26. In what form are carbohydrates stored in plants?
    (a) Maltose
    (b) Lactose
    (c) Glucose
    (d) Starch
    Answer: (d)

27. Which of the following metal is soft and can be cu th a knife?
    (a) Zinc
    (b) Lead
    (c) Potassium
    (d) Nickel
    Answer: (c)

28. The chemical processes responsible for decomposition of rocks with the help of water and atmospheric gases is called _____.
    (a) chemical weathering
    (b) decomposition
    (c) erosion
    (d) hydrolysis
    Answer: (a)

29. The radius of the Earth's Core is about:
    (a) 3100 km
    (b) 3200 km
    (c) 3500 km
    (d) 3000 km
    Answer: (c)

30. On which date did Bhagat Singh and Batukeshwar Dutt threw bombs in Central Legislative Assembly?

(a) 8 April, 1929
(b) 30 January, 1929
(c) 23 March, 1931
(d) 22 August, 1922

Answer: (a)

31. When was Poona Pact signed?

(a) 1932
(b) 1930
(c) 1931
(d) 1929

Answer: (a)

32. From which place did Dandi march start?

(a) Poona
(b) Dandi
(c) Ahmedabad
(d) Bombay

Answer: (c)

33. The Princely State of _____ was founded a[illegible]nd 1724 when Mir Qamar-ud-Din, the Mughal Viceroy of the Deccan, assumed independe[illegible]e under the title of Asaf Jah.

(a) Baroda
(b) Gwalior
(c) Hyderabad
(d) Junagadh

Answer: (c)

34. Bharat Ratna awardee 'C. N. R. Rao' belongs to the field of:

(a) Physics
(b) Chemistry
(c) Biology
(d) Literature

Answer: (b)

35. Who among the following is the writer of the book "The story of my experiments with truth"?

(a) Raja Ram Mohan Roy
(b) Swami Vivekananda
(c) Rabindra Nath Tagore
(d) Mahatma Gandhi

Answer: (d)

36. How many Fundamental Rights are listed in Indian Constitution?
    (a) 6
    (b) 7
    (c) 8
    (d) 5
    Answer: (a)

37. The 86th Amendments of the Indian constitution is about _____.
    (a) Right to property
    (b) Right to Education
    (c) Right to equality
    (d) Right to religious freedom
    Answer: (b)

38. Who is the highest active goal scorer in football as of July 2021?
    (a) Luis Suarez
    (b) Pele
    (c) Cristiano Ronaldo
    (d) Lionel Messi
    Answer: (c)

39. How many oath takers were there during the oper g ceremony in 2020 Tokyo Olympics ?
    (a) 10
    (b) 3
    (c) 5
    (d) 6
    Answer: (d)

40. In a kho-kho match, how many players from each team take the field?
    (a) 9
    (b) 11
    (c) 6
    (d) 8
    Answer: (a)

Arithmetic Ability

41. What must be added to the product of 0.7504 and 0.9887 to make it equal to unity?
    (a) 0.304
    (b) 0.226
    (c) 0.286
    (d) 0.258
    Answer: (d)

42. The value of (3.03 × 3.03 × 3.03 - 0.03 × 0.03 × 0.03) ÷ (3.03 × 3.03 + 0.03 × 3.03 + 0.03 × 0.03) is:

(a) 3.03
(b) 3
(c) 0.03
(d) 3.003

Answer: (b)

43. How much will be the average of the squares of natural numbers from 1 to 50?

(a) 888.5
(b) 895.85
(c) 858.5
(d) 925.6

Answer: (c)

44. The average of the two-digit numbers, which remain the same when the digits interchange their positions, is:

(a) 33
(b) 44
(c) 55
(d) 66

Answer: (c)

45. Evaluate:
28% of 450 + 45% of 280

(a) 289
(b) 350
(c) 284
(d) 252

Answer: (d)

46. If number x is 5% less than another number y and y is 5% more than 25, then find out the value of x.

(a) 25.5625
(b) 26.25
(c) 24.9375
(d) 25.175

Answer: (c)

47. After getting two successive discounts Shreya got a shirt at Rs. 204 whose marked price is Rs. 300. If the second discount is 15% find the first discount.

(a) 12.5%
(b) 15%
(c) 10%
(d) 20%

Answer: (d)

48. A grocer sells rice at a profit of 15% and uses a weight which is 20% less. Find his total percentage gain.

(a) 45%
(b) 41.25%
(c) 42.5%
(d) 43.75%

Answer: (d)

49. The third proportional to 16 and 64 is _____.

(a) 256
(b) 196
(c) 324
(d) 296

Answer: (a)

50. The ratio between two numbers is 5 : 6. If their H.C.F is 8, then the larger number is _____.

(a) 40
(b) 48
(c) 44
(d) 54

Answer: (b)

51. What sum of money will produce Rs.50 as simple interest in 4 years at 2.5 percent?

(a) Rs 500
(b) Rs 600
(c) Rs 550
(d) Rs 650

Answer: (a)

52. A sum of Rs. 500 amounts to Rs. 620 in 4 years at x% per year. What will it amount to if the rate of interest increased to (x + 2)% per year?

(a) 650
(b) 660
(c) 680
(d) 685

Answer: (b)

53. In what time will a railway train 120 m long moving at the rate of 36 kmph pass a telegraph post on its way?

(a) 10s
(b) 14s
(c) 12s
(d) 8s

Answer: (c)

54. Sushanth covers a distance by walking for 6 hours while returning his speed decreases by 1km/hr and he takes 8 hours to covers the same distance. What was his speed while returning?

(a) 2 km/hr
(b) 3 km/hr
(c) 5 km/hr
(d) 8 km/hr

Answer: (b)

55. A does half as much work as B in three – fourth of the time if together they take 18 days to complete a work. How much time shall B take to do it?

(a) 30 days
(b) 35 days
(c) 40 days
(d) 45 days

Answer: (a)

56. 8 Children and 12 men complete a certain piece of work in 9 days. If each child takes twice the time taken by man to finish the work. In how many days will 12 men finish the same work?

(a) 8 days
(b) 15 days
(c) 9 days
(d) 12 days

Answer: (d)

57. A solid consists of a circular cylinder with an exact fitting right circular cone placed on the top. The height of the cone is h cm. If the total volume of the solid is three times the volume of the cone then the height of the cylinder is _____cm.

(a) 2h
(b) 4h
(c) 2h/3
(d) 3h/2

Answer: (c)

General English

61. The sentence below has been divided into three parts. Select the part of the sentence that has an error. If the sentence has no error, select the option 'No Error'.
Have you ever/ thought about a/ cruise to Bahamas?

(a) Have you ever

(b) thought about a

(c) cruise to Bahamas?

(d) No Error

Answer: (c)

62. The sentence below has been divided into three parts. Select the part of the sentence that has an error. If the sentence has no error, select the option 'No Error'.
Charles was an odd/ character who Kelly/ had never really taken to.

(a) Charles was an odd

(b) character who Kelly

(c) had never really taken to.

(d) No Error

Answer: (b)

63. Select the word segment that substitutes (replaces) the bracketed word segment correctly and completes the sentence meaningfully. Select the option 'no correction required' if the sentence is correct as given.
Gathering up the debris, she stuffed it (into her pocket to dispose in the galley bin below).

(a) into her pocket to dispose of in the galley bin below

(b) into her pocket to dispose at the galley bin underneath

(c) into her pockets to dispose at the galley bin below

(d) No correction required

Answer: (a)

64. Select the word segment that substitutes (replaces) the bracketed word segment correctly and completes the sentence meaningfully. Select the option 'no correction required' if the sentence is correct as given.
Often the (initial struggles of such a program shows a passionate) commitment which somehow overcomes many an uncertainty and lack.

(a) initial struggles of such an programs show a passionate

(b) initial struggles of such a programs show a passionate

(c) initial struggles of such programs show a passionate

(d) No correction required

Answer: (c)

65. Fill in the blank with the most appropriate choice
The book, with compelling lucidity, draws the reader into a rare mix of _____ scholarship and sheer readability.

(a) expedite
(b) aphrodite
(c) incondite
(d) erudite

Answer: (d)

66. Fill in the blank with the most appropriate choice Sirens wailed their mournful _____ as they raced towards the hotel.

(a) converge
(b) forge
(c) scourge
(d) dirge

Answer: (d)

67. Some parts of a sentence have been jumbled up, and labelled P, Q, R and S. Select the option that gives the correct sequence in which these parts can be rearranged to form a meaningful and grammatically correct sentence.
The point is not
P. my poor business
Q. relationship, not
R. lawyering is a
S. acumen, but that
a commodity.

(a) PSQR
(b) QPRS
(c) PSRQ
(d) RPQS

Answer: (c)

68. The question below consist of a set of labelled sentences. Out of four options given, select the most logical order of the sentences which form a paragraph.
During the 15 years after the Suez disaster, Britain divested itself of most colonial holdings and abandoned most power positions in Africa and Asia.
P. And in 1971 Britain left the Persian Gulf.
Q. After 1974 Britain moved rapidly to grant independence to its Black African colonies.
R. In 1958 the pro-British monarchy in Iraq fell.
S. During the 1960s Cyprus and Malta became independent.
One British colony, Southern Rhodesia (now Zimbabwe), broke away unilaterally sometime in 1965.

(a) RPSQ
(b) RQSP
(c) PSRQ
(d) RSPQ

Answer: (d)

69. Select the word that is opposite in meaning (ANTONYM) to the word given below precipitate

(a) hinder

(b) debris

(c) silt

(d) waste

Answer: (a)

70. Select the word that is similar in meaning (SYNONYM) to the word given below terse

(a) verbose

(b) laconic

(c) subside

(d) allay

Answer: (b)

71. Four words are given, out of which only one word is spelt correctly. Choose the correctly spelt word.

(a) protagonist

(b) protaganist

(c) protagnist

(d) protaginist

Answer: (a)

72. Four words are given, out of which only three wo , are spelt correctly. Choose the one spelt incorrectly.

(a) torpor

(b) supplant

(c) synthesize

(d) presurcor

Answer: (d)

73. Select the most appropriate meaning of the given idiom Have an axe to grind

(a) Intelligent people think like each other

(b) Strange or crazy actions that appear meaningless but in the end are done for a good reason

(c) Partially deaf, not able to hear well

(d) To have a dispute with someone

Answer: (d)

74. Select the most appropriate meaning of the given idiom From rags to riches

(a) Approximately, almost, somewhat, to a certain degree

(b) To state a fact so there are no doubts or objections

(c) Someone who is unpredictable and can cause damage if not kept in check

(d) To go from very poor to being very wealthy

Answer: (d)

75. Select the most appropriate 'one word ' for the expressions given below A funeral procession

(a) Creche

(b) Beckon

(c) Bastion

(d) Cortege

Answer: (d)

76. How long did the Kobe earthquake last for?

(a) 52 seconds

(b) 20 seconds

(c) 1 minute

(d) 39 seconds

Answer: (b)

78. What was the cost associated by the Kobe earthquake in damages?

(a) Approximately hundred trillion yen

(b) Approximately hundred million yen

(c) Approximately ten billion yen

(d) Approximately ten trillion yen

Answer: (d)

79. On the list of the worst earthquakes to hit Japan, where does the Great Hanshin earthquake rank?

(a) fourth

(b) third

(c) first

(d) second

Answer: (d)

Discipline1

102. If three vectors A, B, and C are defined by A = 1i + 1j + 1k , B = 2i + 2j + 2k , C = 3i + 3j +3k with i,j,k being the unit vectors along x, y and z axes respectively. Then which one of the following is true for (A×B) C.

(a) 20 cubic units

(b) 10 cubic units

(c) 0 cubic units

(d) 40 cubic units

Answer: (c)

103. If the deforming force is applied parallel to the surface over a body ,then the stress experienced by the body is called

(a) Tensile stress

(b) Normal stress

(c) Tangential stress

(d) Compressive stress

Answer: (c)

104. A body of mass 1kg moves in a circular path of radius 1m and makes 20 rps then the angular momentum of the body is

(a) 125.68kgm 2 /s

(b) 22kgm 2 /s

(c) 20.42kgm 2 /s

(d) 25.42kgm 2 /s

Answer: (a)

105. A battery of a scooter has an e.m.f of 8 V . If internal resistance of the battery is 0.2 Ω , what is the maximum current that can be drawn from the battery?

(a) 80 A

(b) 40 A

(c) 60 A

(d) 70 A

Answer: (b)

106. A circular coil of 100 turns and radius [illegible] carries a current of 20 ampere then the magnetic moment of the coil is

(a) 0.012Am 2

(b) 0.8Am 2

(c) 620Am 2

(d) 0.628Am 2

Answer: (d)

107. An infinitely long conducting wire carries the current of 10 ampere , then the magnetic field at a distance of 2m from the conductor is

(a) 10 × 10 -7 T

(b) 1 × 10 -7 T

(c) 100 × 10 -7 T

(d) 1000 × 10 -7 T

Answer: (a)

108. If length = 1m then, SI unit of specific rotation of a solid is

(a) rad

(b) rad(m)$^{-1}$

(c) rad(mm)$^{-1}$

(d) rad(m)

Answer: (b)

109. The equivalent focal length of two thin lenses of focal lengths 0.30m and 0.10m kept at a distance of 0.2m is given by

(a) 0.25m

(b) 0.12m

(c) 0.15m

(d) 0.30m

Answer: (c)

111. A _____ is an expansion of a periodic function f(x) in terms of an infinite sum of sines and cosines.

(a) Vector

(b) Fourier series

(c) Laurent's series

(d) Power series

Answer: (b)

112. The product of two odd functions is

(a) Even

(b) Odd

(c) Zero

(d) Constant

Answer: (a)

113. The amount of heat required to raise the temperature of the whole body (mass m) through 1°C or 1K is called as

(a) Latent heat

(b) Thermal capacity

(c) Vapour pressure

(d) Sublimation

Answer: (b)

114. The energy radiated per unit area is called

(a) Thermal energy

(b) Power

(c) Radiant energy

(d) Radiant power

Answer: (d)

115. The sudden burst of the tube of bicycle tyres is an example of an _____ process.

(a) Isothermal

(b) Isochoric

(c) Adiabatic

(d) Cyclic

Answer: (c)

116. The _____is a combinational logic circuit designed to switch one of several input lines to a single common output line.

(a) Multiplexer

(b) Demultiplexer

(c) Half adder

(d) Full adder

Answer: (a)

117. _____ is the instrument in which output is free from the clock signal.

(a) Asynchronous counter

(b) Synchronous counter

(c) Flip flop

(d) Half adder

Answer: (a)

118. The IC _____ is used as a relaxation oscillato

(a) 555

(b) 454

(c) 600

(d) 353

Answer: (a)

119. The set, obtained by adding to an open connected set, its boundary points is called as

(a) Compact set

(b) Limit point

(c) Interior points

(d) Closed domain

Answer: (d)

120. Which one of the following denotes symmetry property of delta function?

(a) $\delta (x-a) = \delta (a-x)$

(b) $\delta (x-a) = 0$

(c) $\delta (x-a) = \delta (x)$

(d) $\delta (x-a) = x$

Answer: (a)

Discipline2

121. Thr relation between alpha particle and its velocity of emission is given by

(a) R= av

(b) R= av 3

(c) R= av 2

(d) R= av 4

Answer: (b)

122. The process of emission of electrons from a metal plate ,when illuminated by the light of suitable wavelength is called

(a) Photo electric effect

(b) Hall effect

(c) Faraday effect

(d) Glasser effect

Answer: (a)

123. The _____ is the ratio of r.m.s value of A.C. component to the D.C. component in the rectifier output.

(a) Ripple factor

(b) Rectifier efficiency

(c) Voltage regulation

(d) Average power

Answer: (a)

124. Solar cell uses _____ effect.

(a) Hall effect

(b) Electric effect

(c) Photovoltaic effect

(d) Accordion effect

Answer: (c)

125. _____ is the splitting of a spectral line in presence of the magnetic field.

(a) Electric effect

(b) Zeeman effect

(c) Hall effect

(d) Magnetic effect

Answer: (b)

126. _____ is the effect caused by the inelastic scattering of high-energy photons that interact with free or loosely bound electrons.

(a) Hall effect
(b) Compton effect
(c) Photoelectric effect
(d) Electric effect

Answer: (b)

127. The potential between a pair of atoms is called

(a) Interatomic potential
(b) Electric potential
(c) Magnetic potential
(d) High potential

Answer: (a)

128. An _____ instrument allows the molecular structure of a material to be analyzed by observing and measuring the interaction of nuclear spins when placed in a powerful magnetic field.

(a) NMR
(b) MRI
(c) Oscillator
(d) Counter

Answer: (a)

129. The maximum energy that the free electron ca[illegible]ave at the absolute zero degree of temperature is called

(a) Nuclear energy
(b) Fermi energy
(c) Electron energy
(d) Quantum energy

Answer: (b)

130. The _____ is that distance below the surface of a conductor where the current density has diminished to 1/e of its value at the surface.

(a) Skin depth
(b) Refractive index
(c) Plasma frequency
(d) Relaxation time

Answer: (a)

131. The _____ is the frequency at which the electrons in the plasma naturally oscillate relative to the ions and typically has values between 2 and 20 MHz for conditions in Earth's ionosphere.

(a) Plasma frequency
(b) Medium Frequency
(c) Ultra High Frequency
(d) High Frequency

Answer: (a)

132. According to postulates of statistical mechanics all the cells in phase space are _____ size.

(a) Equal
(b) Maximum
(c) Minimum
(d) Moderate

Answer: (a)

133. According to Maxwell - Boltzmann statistics total energy of all the particles in the entire system is

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

Answer: (d)

134. Mass number is given by the formula _____

(a) Proton + Neutron
(b) Proton - Neutron
(c) Neutron × Proton
(d) Proton + Electron

Answer: (a)

135. What is the mass of an electron?

(a) $9.109\times10^{-}$ 31 g
(b) $9.109\times10^{-}$ 31 Kg
(c) $9.109\times10^{-}$ 30 Kg
(d) 9.109 Kg

Answer: (b)

136. What is De Broglie hypothesis?

(a) $\lambda=h\times p$
(b) $\lambda=h/c$
(c) $\lambda=h/p$
(d) $\lambda=p/h$

Answer: (c)

137. What are Aliphatic Hydrocarbons?

(a) They have carbon and hydrogen in ring form

(b) They have carbon and hydrogen in cylindrical form

(c) Carbons and Hydrogens are in straight chain

(d) Carbons are in ring form and hydrogen are in straight chain

Answer: (c)

138. What are unsaturated hydrocarbons?

(a) Hydrocarbons having oxygen

(b) Hydrocarbons having nitrogen

(c) Hydrocarbons having single bond

(d) Hydrocarbons having double or triple bonds

Answer: (d)

140. Which of the following is reducing sugar?

(a) sucrose

(b) trehalose

(c) lactose

(d) raffinose

Answer: (c)

Discipline3

141. Which of the following test is not given by the r ucing sugar?

(a) Fehling's Test

(b) Tollen's Test

(c) Benedict Test

(d) Carbylamine Test

Answer: (d)

142. If ΔH and ΔS are both positive at low temperature in the expression ΔG = ΔH - T Δ S then the reaction is _____

(a) Equilibrium

(b) Spontaneous

(c) Non-spontaneous

(d) Non-equilibrium

Answer: (c)

143. What is the value of Joule-Thomson coefficient for an ideal gas?

(a) 1

(b) 0

(c) 2

(d) 3

Answer: (b)

145. The expression for the Kohlrausch Law is given as _____

(a) Λ =λ°(cation)+λ°(anion) e

(b) Λ =λ°(cation)-λ°(anion) e

(c) Λ =λ°(cation)/λ°(anion) e

(d) Λ =λ°(cation)×λ°(anion) e

Answer: (a)

146. Kohlrausch Law is applicable to _____

(a) strong electrolyte

(b) weak electrolyte

(c) strong as well as weak electrolytes

(d) clear solution

Answer: (c)

147. Which of the following is wrong with respect to Kohlrausch law?

(a) It is used to calculate Degree of dissociation

(b) It is used to calculate Dissociation constant for weak electrolyte

(c) It is used to calculate solubility of moderate salts

(d) it is used to calculate the molarity

Answer: (d)

148. Ligands in the coordination compounds are ____ __

(a) Lewis Bases

(b) Lewis Acids

(c) Bronsted Acid

(d) Bronsted Base

Answer: (a)

149. Name the following coordination compound K [Fe(CN)] _____ 4 6

(a) Potassium HexacyanidoIron (III)

(b) Potassium Hexacyanidoferrate (II)

(c) Potassium Hexacyanidoferrate (III)

(d) Potassium HexacyanidoIron (II)

Answer: (b)

150. Which of the following ligands have denticity 2?

(a) Cl

(b) EDTA

(c) Ethane-1,2-diamine

(d) OH

Answer: (c)

151. What is the IUPAC name of this halogenated compound CH CH CH Br ?
2 2 2

(a) 1-Bromopropane

(b) 2-Bromoethane

(c) 4-Bromopropane

(d) Propane Bromide

Answer: (a)

152. What is the name of the reaction involving Alkyl halide heating with metallic fluorides to undergo halogen exchange?

(a) Sandmeyer's reaction

(b) Swarts reaction

(c) Finkelstein reaction

(d) Wurtz reaction

Answer: (b)

153. What is the name of the reaction in which aldehyde or ketone with no alpha-H reacts with hydrazine to form hydrazone which is followed by hydrolysis to give the Alkane as the final product?

(a) Aldol condensation

(b) Hoffman Bromide reaction

(c) Clemmensen reduction

(d) Wolff-Kishner reduction

Answer: (d)

154. The terpenoids having three isoprene units is _____

(a) Diterpenes

(b) Monoterpenes

(c) Sesquiterpenes

(d) Triterpenes

Answer: (c)

155. How many carbons are present in the Tetratarpenes?

(a) 20 Carbons

(b) 40 Carbons

(c) 30 Carbons

(d) 10 Carbons

Answer: (b)

156. What is the expression for the Gibbs Phase rule?

(a) F=C-P+2

(b) F=P-C+2

(c) F=C-P-2

(d) F=P-C-2

Answer: (a)

157. What is the value of degree of freedom for the composition reaction of CaCO ?
3

(a) 3
(b) 2
(c) 1
(d) 0

Answer: (c)

158. The base value of Homoannular Diene in UV-Visible spectroscopy is _____

(a) 205 nm
(b) 215 nm
(c) 214 nm
(d) 253 nm

Answer: (d)

159. The base value of ArCOR in the UV-Visible spectroscopy is _____

(a) 250 nm
(b) 230 nm
(c) 246 nm
(d) 215 nm

Answer: (c)

160. Which of the following is not a s-block element?

(a) Na
(b) K
(c) Ca
(d) O

Answer: (d)

Discipline4

161. Which of the following elements has a least density?

(a) Na
(b) K
(c) Rb
(d) Cs

Answer: (b)

162. What is the electronic configuration of the Francium?

(a) [Rn]7s 1
(b) [Xe]6s 1
(c) [Rn]6s 1
(d) [Rn]4s 1

Answer: (a)

163. The expression for the Ostwald's Dilution Law for the very weak electrolyte is _____

(a) α=K/V

(b) α=(KV)½

(c) α=KV

(d) V=Kα

Answer: (b)

164. Which of the following is not a states of matter?

(a) Solid

(b) Liquid

(c) Gas

(d) Hapticity

Answer: (d)

165. Which of the following states shows the highest Kinetic energy in between their particles?

(a) Solid

(b) Liquid

(c) Gas

(d) Plasma

Answer: (c)

166. Ostwald's Dilution Law is applicable to calculate parameter _____

(a) Molarity

(b) Molality

(c) Mole Fraction

(d) Degree of Dissociation

Answer: (d)

167. Which of the following network protocol is used to allot IPs automatically to users on the internet?

(a) DHCP

(b) DNS

(c) HTTP

(d) IIS

Answer: (a)

168. Production of dumps, traces and error messages is a part of which function of OS?

(a) File Management

(b) Error detecting aids

(c) Security

(d) Memory Management

Answer: (b)

169. Which of the following is NOT an operating system?

(a) Solaris

(b) MS-DOS

(c) Linux

(d) JVM

Answer: (d)

170. Which among the following is a property of database transaction that states "it cannot be divided up any further"?

(a) Atomicity

(b) Consistency

(c) Isolation

(d) Durability

Answer: (a)

171. Which among the following is NOT a benefit of normalized relational database?

(a) Elimination of redundant data storage.

(b) Close modeling of real world entities, processes, and their relationships.

(c) Makes database more efficient and reliable.

(d) Destructuring of data so that the model is flexible.

Answer: (d)

172. What type of network is the Internet?

(a) LAN

(b) MAN

(c) WAN

(d) DAN

Answer: (c)

173. Which layer of the OSI model performs LOGIN or password checking?

(a) Transport

(b) Network

(c) Application

(d) Presentation

Answer: (c)

174. Which of the following is NOT a category of multimedia?

(a) Linear

(b) Interactive

(c) Real-time

(d) Static

Answer: (d)

175. What is the first layer in Multimedia Framework Architecture?

(a) Presentation Layer

(b) A/V Streams Control Layer

(c) MM Hardware CORBA Server Layer

(d) MM Hardware and System Software Layer

Answer: (d)

176. What will be the output of the following program? public class Main{
Main() {
this(5);
}
Main(int x) {
this(5, 15);
System.out.println(x);
}
Main(int x, int y) {
System.out.println(x * y);
}
public static void main(String args[]) { new Main();
}
}

(a) 5,25

(b) 75,5

(c) 75,15

(d) compilation error

Answer: (b)

177. What will be the output of following program? public class Main{
Main() {
System.out.println("hi");
}
Main(int temp) {
System.out.println("I am from derived class"+" "+temp); }
public static void main(String args[]) { Main obj = new Main(5);
}
}

(a) I am from derived class 5

(b) I am from derived class 5 I am from base class

(c) I am from base class I am from derived class 5

(d) Welcome I am from base class

Answer: (a)

178. What will be the output of following program? public class Main{
public static void main(String args[]){ int a=1;
for(;a<=4;)
System.out.println(a);
a=a+2;
}
}

(a) 1,2,3,4

(b) 1,3

(c) It will print 1 infinite times

(d) Compilation error

Answer: (c)

179. Which method of Thread class in Python waits for threads to terminate?

(a) isAlive()

(b) start()

(c) run()

(d) join([time])

Answer: (d)

180. Which among the following is a correct way to write comments in Python?

(a) //First comment

(b) # First comment

(c) "First comment"

(d) !First comment

Answer: (b)

Discipline5

181. What will be the output of following Python program? a = [1,2,3,4,5]
a = a[3:-1]
print(a)

(a) [3,4,5]

(b) [4,5]

(c) [4]

(d) Error

Answer: (c)

182. A person who sends, generates, stores or transmits any electronic message is called _____.

(a) Originator

(b) Intermediary

(c) Controller

(d) Addressee

Answer: (a)

183. If your laptop is infected by a malware after you opened an online advertisement, then what is it called?

(a) Phishing
(b) Cloning
(c) Malvertising
(d) Exploit

Answer: (c)

184. Which among the following contains detailed information, lengthy derivations and raw experimental observations in a thesis dissertation?

(a) Acknowledgement
(b) Results
(c) Literature Cited
(d) Appendix

Answer: (d)

185. Which chapter of the Project report includes a thorough evaluation of the investigation carried out?

(a) Abstract
(b) Result
(c) Conclusion
(d) Introduction

Answer: (b)

187. Which function in PHP has no return value and is used to print statements?

(a) print
(b) echo
(c) cout
(d) void

Answer: (b)

188. Which function in Microsoft Excel returns the number of characters in a string text?

(a) CONCATENATE()
(b) CHAR()
(c) VALUE()
(d) LEN()

Answer: (d)

189. Which group in Insert tab is used for plotting graphs in Excel?

(a) Illustrations
(b) Charts
(c) Graphs
(d) Tables

Answer: (b)

191. Which among the following is an open source mobile operating system?

(a) Linux
(b) Android
(c) Windows
(d) Macintosh

Answer: (b)

192. Which among the following is an open source web browser?

(a) Avant
(b) Netscape Navigator
(c) Firefox
(d) Opera

Answer: (c)

193. What is the final step in 3D graphics to assign colours to individual pixels in the 2D image called?

(a) Rasterization
(b) Animation
(c) Transformation
(d) Projection

Answer: (a)

194. Which of the following is not a graphic program?

(a) Adobe Photoshop
(b) Adobe Illustrator
(c) Gimp
(d) Adobe Acrobat

Answer: (d)

195. What is an interface to kernel, which hides the complexity of kernel's functions from users in Linux operating system?

(a) User mode
(b) Shell
(c) Utilities
(d) Hardware Abstraction Layer

Answer: (b)

196. Which port is used by HTTP?

(a) 443
(b) 24
(c) 68
(d) 80

Answer: (d)

197. Which is the correct example for Scatter Plot in R?

(a) plot(as.matrix(mtcars))

(b) barplot(iris$Petal.Length)

(c) plot(AirPassengers,type="l")

(d) plot(x=iris$Petal.Length,y=iris$Species)

Answer: (d)

198. Which is the correct way to import data from a comma delimited file using R?

(a) csv.reader("file.csv")

(b) read_csv("file.csv")

(c) csv.DictWriter("file.csv")

(d) writerows("file.csv")

Answer: (b)

199. What dictates the UI and handles the user interaction with the smart phone screen in an Android application?

(a) Activities

(b) Services

(c) Broadcast Receivers

(d) Content Providers

Answer: (a)

200. The system calls _____ callback when it's time for the fragment to draw its user interface for the first time in an Android application.

(a) onCreate()

(b) onCreateView()

(c) onStart()

(d) onActivityCreated()

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	**(c)**	2	**(b)**	3	**(c)**	4	**(d)**	5	**(b)**	6	**(a)**	7	**(c)**	8	**(b)**
9	**(b)**	10	**(a)**	11	**(d)**	12	**(c)**	13	**(d)**	15	**(b)**	16	**(b)**		

General Awareness

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

Arithmetic Ability

41	**(d)**	42	**(b)**	43	**(c)**	44	**(c)**	45	**(d)**	46	**(c)**	47	**(d)**	48	**(d)**
49	**(a)**	50	**(b)**	51	**(a)**	52	**(b)**	53	**(c)**	54	**(b)**	55	**(a)**	56	**(d)**
57	**(c)**														

General English

61	**(c)**	62	**(b)**	63	**(a)**	64	**(c)**	65	**(d)**	66	**(d)**	67	**(c)**	68	**(d)**
69	**(a)**	70	**(b)**	71	**(a)**	72	**(d)**	73	**(d)**	74	**(d)**	75	**(d)**	76	**(b)**
78	**(d)**	79	**(d)**												

Discipline1

102	**(c)**	103	**(c)**	104	**(a)**	105	**(b)**	106	**(d)**	107	**(a)**	108	**(b)**	109	**(c)**
111	**(b)**	112	**(a)**	113	**(b)**	114	**(d)**	115	**(c)**	116	**(a)**	117	**(a)**	118	**(a)**
119	**(d)**	120	**(a)**												

Discipline2

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

Discipline3

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

Discipline4

161	**(b)**	162	**(a)**	163	**(b)**	164	**(d)**	165	**(c)**	166	**(d)**	167	**(a)**	168	**(b)**
169	**(d)**	170	**(a)**	171	**(d)**	172	**(c)**	173	**(c)**	174	**(d)**	175	**(d)**	176	**(b)**
177	**(a)**	178	**(c)**	179	**(d)**	180	**(b)**								

Discipline5

181	**(c)**	182	**(a)**	183	**(c)**	184	**(d)**	185	**(b)**	187	**(b)**
188	**(d)**	189	**(b)**	191	**(b)**	192	**(c)**	193	**(a)**	194	**(d)**
195	**(b)**	196	**(d)**	197	**(d)**	198	**(b)**	199	**(a)**	200	**(b)**