PREVIOUS YEAR PAPER

# DSSSB TGT Natural Science (Female) 2021 — 25 September 2021, Shift 1

DSSSB TGT · 25 September 2021 · Shift 1

156 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: 44 (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 25 September 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-tgt/previous-year-papers/dsssb-tgt-2021-natural-science-female-25-sep-shift-1/

## General Ability

1. Find the wrong term in the letter-cluster series given below:
CGTM, JNMG, QUHA, XBBU, EIVO

(a) JNMG
(b) QUHA
(c) XBBU
(d) EIVO

**Answer: (a)**

2. Find the missing term in the following letter-clust eries given below:
TYC3, YEH9, ? , IQR21, NWW27

(a) EKM15
(b) DLM15
(c) DKN15
(d) DKM15

**Answer: (d)**

3. Find out the odd word from the given alternatives.

(a) Afghanistan
(b) Denmark
(c) Maldives
(d) Mizoram

**Answer: (d)**

4. Select the related letters from the given alternatives:
BLX : GR :: HNV : ?

(a) KR
(b) LQ
(c) RK
(d) JS

**Answer: (a)**

5. If ARTIST is coded as YWLVSA then how will FLOWER be coded as?

(a) WIMFIZ

(b) FMQZIW

(c) QZIWMF

(d) WIZQMF

**Answer: (d)**

6. In a college of 82 students, Nitin's rank is thirty-fifth from the top. Prashant is ranked eighth above Nitin. What is the Prashant rank from the bottom?

(a) 58

(b) 56

(c) 57

(d) 55

**Answer: (b)**

7. Ankit, Suresh, Dinesh, Raj, Pankaj and Rajat are six members of a club. Each of them has a different profession i.e. A, B, C, D, E and F, each of them like different color i.e. Yellow, White, Red, Orange, Green and Pink. Person, profession and color given above are not necessarily in the same order. Dinesh's profession is C and he does not like green colour. The favorite color of E is pink. The one who is in B likes Orange colour.
Raj's profession is F. Suresh's profession is A and he likes white colour. Ankit likes yellow colour. Pankaj's favorite color is orange.
What is Ankit's profession?

(a) D

(b) E

(c) F

(d) C

**Answer: (a)**

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 campus are station.
Some stations are cat.
Conclusions:
(I) All campus are station.
(II) Some station are campus.

(a) Only I follow

(b) Only II follows

(c) Both I and II follow

(d) Neither I nor II follows

**Answer: (b)**

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:
All painting are artists.
Some artist are famous.
No famous is great.
Conclusions:
(I) Some artist are great.
(II) Some artist are painting.

(a) Only I follow

(b) Only II follows

(c) Both I and II follow

(d) 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:
Some rainbow are rain.
All rain are earth.
All earth are natural.
Conclusions:
(I) Some earth are rain.
(II) No earth is rain.
(III) Atleast some rainbow are earth.

(a) Only I follow

(b) Only II follows

(c) Only I and III follow

(d) None follows

**Answer: (c)**

11. Select the set of numbers that is similar to the following set of numbers.
(10, 12, 15)

(a) (21, 23, 27)

(b) (30, 32, 36)

(c) (60, 62, 66)

(d) (68, 70, 73)

**Answer: (d)**

12. In the question below, a statement is followed by two conclusions. Study the conclusions and select the correct option as the answer.
Statement:
$S > J \leq F \geq T = Q$
Conclusions:
I. $S > F$
II. $F \geq Q$

(a) Either I or II follows
(b) Only I follows
(c) Both I and II follow
(d) Only II follows

**Answer: (d)**

13. In the following question, select the missing number from the given series.
2, 5, 10, 17, ?, 37

(a) 23
(b) 24
(c) 25
(d) 26

**Answer: (d)**

## General Awareness

21. Which ruler built the Mughal Gardens of Srinagar

(a) Aurangzeb
(b) Akbar
(c) Shahjahan
(d) Jahangir

**Answer: (d)**

22. The famous "Ganga Sagar Mela", an annual fair is held in which state of India?

(a) Uttar Pradesh
(b) West Bengal
(c) Madhya Pradesh
(d) Uttarakhand

**Answer: (b)**

23. _____ is a classical dance form of Assam.

(a) Lavani
(b) Bhangda
(c) Sattriya
(d) Cheraw

**Answer: (c)**

24. To which sport does the “hook pass” terminology belong?
    (a) Volleyball
    (b) Football
    (c) Rugby
    (d) Basketball
    **Answer: (d)**

25. Shri Devendra Jhajharia who was Arjun award recipient of 2017 belongs to which game?
    (a) Athletics
    (b) Kabaddi
    (c) Football
    (d) Basketball
    **Answer: (a)**

26. Which is the second highest civilian award conferred for exceptional and distinguished service to an Indian?
    (a) Bharat Ratna
    (b) Padma Shri
    (c) Padma Vibhushan
    (d) Padma Bhushan
    **Answer: (c)**

27. What is the name of the autobiography of Adolf h[illegible]r?
    (a) Mein Kampf
    (b) The Nazi
    (c) The Nazi Rule
    (d) Long Walk To Freedom
    **Answer: (a)**

28. Who became the first woman to ascend all Seven Summits by climbing the highest peak on every continent?
    (a) Bachendri Pal
    (b) Junko Tabei
    (c) Malavath Purna
    (d) Premlata Agarwal
    **Answer: (b)**

29. When does the National Consumer Day observed in India?
    (a) 20th December
    (b) 24th December
    (c) 25th December
    (d) 30th December
    **Answer: (b)**

30. _____ allots symbols to political parties in India.
    (a) The President
    (b) The Party leaders
    (c) The Election Commission
    (d) The Judiciary

    **Answer: (c)**

31. Anodising is a process of forming a thick oxide layer of _____.
    (a) Oxygen
    (b) Aluminium
    (c) Fluorine
    (d) Carbon

    **Answer: (b)**

32. Trophic level in an ecosystem represents _____.
    (a) Oxygen levels
    (b) Salt level
    (c) Energy level
    (d) Water level

    **Answer: (c)**

33. In Amoeba, food is digested in a _____.
    (a) Food vacuoles
    (b) Mitochondria
    (c) Endoplasmic reticulum
    (d) Plastid

    **Answer: (a)**

34. In which of the following state India's first jute mill was established?
    (a) West Bengal
    (b) Madhya Pradesh
    (c) Himachal Pradesh
    (d) Rajasthan

    **Answer: (a)**

35. Which of the following is a Ferrous Mineral?
    (a) Copper
    (b) Bauxite
    (c) Manganese
    (d) Lead

    **Answer: (c)**

36. Harappa was situated on the banks of the river _____.

(a) Indus
(b) Ravi
(c) Sutlej
(d) Brahmaputra

**Answer: (b)**

37. In 1921, _____ set up the National Fascist Party.

(a) Hitler
(b) Churchill
(c) Mussolini
(d) Lenin

**Answer: (c)**

38. The Renaissance first began in _____.

(a) Spain
(b) Italy
(c) Australia
(d) France

**Answer: (b)**

39. Which city will host the Durand Cup 2021?

(a) Dehradun
(b) Indore
(c) Pune
(d) Kolkata

**Answer: (d)**

40. Which of the following city has become the first Indian city to achieve 100 per cent COVID-19 vaccination?

(a) Ahmadabad
(b) Bhubaneswar
(c) Bangalore
(d) Kochi

**Answer: (b)**

## Arithmetic Ability

43. What value will come in place of question mark (?) in the following question?
(6) 3 + (2) 3 + 3(6 × 2) 8= ?

(a) 300
(b) 272
(c) 200
(d) 512

**Answer: (d)**

45. In a company, there are 80 workers. The ratio of male workers to female workers is 9 : 7. The average salary of all workers is Rs.20000. If the average salary of male workers is Rs.2000 less than that of the female workers, then what is the average salary of male workers?

(a) Rs.19125
(b) Rs.18775
(c) Rs.18980
(d) Rs.18500

**Answer: (a)**

46. Venu saves 25 percent of his income. If his income increases by 25 percent and still he saves the same amount as before, the percentage increase in his expenditure is_____.

(a) 30 percent
(b) 25 percent
(c) 33.33 percent
(d) 26 percent

**Answer: (c)**

47. The average of n numbers is 42. If 75 percent of the numbers are increased by 4 each and the remaining numbers are decreased by 8 each, then what is the average of the numbers, so obtained?

(a) 43.8
(b) 44
(c) 42.5
(d) 43

**Answer: (d)**

48. The selling price of 40 products is same as the cost price of 'x' products. Find the value of 'x' if the profit earned is 25 percent by selling x articles.

(a) 45
(b) 50
(c) 60
(d) 75

**Answer: (b)**

49. An item of marked price Rs.80 was sold in Rs.68. What is the rate of discount?

(a) 14 percent
(b) 15 percent
(c) 85 percent
(d) 86 percent

**Answer: (b)**

50. In an examination, out of 100 students 80 percent of the girls and 70 percent of the boys passed. How many boys appeared in the examination if total pass percentage was 75 percent?

(a) 70
(b) 40
(c) 20
(d) 50

**Answer: (d)**

51. P and Q started a business with investment of Rs.2400 and Rs.3600 respectively. If at the end of 3 years Q withdraws Rs.1800, then what is the ratio of profit share of P to Q at the end of 5 year?

(a) 5 : 6
(b) 5 : 7
(c) 3 : 5
(d) 7 : 9

**Answer: (a)**

52. The simple interest accrued on an amount of Rs. 2,800 at the end of six years is Rs. 2100. What would be the simple interest accrued on an amount of Rs 6875 at the same rate and same period?

(a) Rs.4,556.5
(b) Rs. 5,025.25
(c) Rs.4,895.25
(d) Rs.5,156.25

**Answer: (d)**

53. A train moving with speed of 81 km/hr passes a pole and platform in 8 seconds and 22 seconds, respectively. Find the length of the platform.

(a) 315 meters
(b) 400 meters
(c) 495 meters
(d) 460 meters

**Answer: (a)**

54. The speed of a car is 2 times the speed of a passenger train. If the car travels at the speed of 85 kmph, what will be the difference in the time taken by the passenger train and the time taken by the car to cover 935 km.?

(a) 5 hours
(b) 11 hours
(c) 22 hours
(d) 8 hours

**Answer: (b)**

55. Pipe A can fill an empty tank in 12 hours and pipe B can empty the same full tank in 10 hours. If pipe A is halved open and pipe B is one-third open, then in how many hours does the empty tank get filled while pipe A and B working simultaneously?

(a) 90

(b) 120

(c) 60

(d) 80

**Answer: (b)**

56. 12 men can do a piece of work in 10 days while 9 women can do the same work in 20 days. If 3 men start working and work for 'T' days and after that 3 women joined them and together they take 6 more days to finish the remaining work, then what is the value of 'T'?

(a) 30

(b) 25

(c) 20

(d) 15

**Answer: (a)**

58. The radius and height of a right circular cone are in ratio of 5 : 12 and its volume is 2512 cu cm. The radius of the cone is :( π = 3.14)

(a) 24 cm

(b) 20 cm

(c) 10 cm

(d) 15 cm

**Answer: (c)**

## General English

61. One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.
The approach has resulted in a range of false solutions that offers an illusion of action but have little impact in reality.

(a) The approach has resulted in a range of

(b) false solutions that offers an illusion

(c) of action but have little impact in reality

(d) No error

**Answer: (b)**

62. One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.
The document is silent on the exact science of prioritising actions, especially when all sources of pollution demand intervention at the same time.

(a) The document is silent on the exact science of prioritising

(b) actions, especially when all sources

(c) of pollution demand intervention at the same time

(d) No error

**Answer: (d)**

64. Select the most appropriate option to substitute the bracketed part in the given sentence. If there is no need to substitute it, select 'No improvement'.
The fundamental rights granted to us by our Constitution cannot be (encroached by) any person or group of persons.

(a) encroached into by

(b) encroached with

(c) encroached upon by

(d) No Improvement

**Answer: (c)**

65. Select the most appropriate option to fill in the blank.
The bear didn't attack the lady because he was afraid ___ her.

(a) of

(b) at

(c) as

(d) for

**Answer: (a)**

66. Select the most appropriate option to fill in the blanks.
One needs to know the difference _____ watercolour and acrylic paints before starting to paint.

(a) from

(b) in

(c) between

(d) among

**Answer: (c)**

67. Select the most appropriate option to fill in the blanks.
No need to cry over _____ milk. It is time you got up and go about your usual routine.

(a) spill

(b) spilt

(c) spilling

(d) slipped

**Answer: (b)**

69. Select the most appropriate synonym for the given word.
Narcissism

(a) Humility
(b) Modesty
(c) Arrogance
(d) Insanity

**Answer: (c)**

70. Select the most appropriate antonym for the given word.
Comprehensive

(a) Apprehensive
(b) Shallow
(c) Apprehension
(d) Suburbia

**Answer: (b)**

71. Select the INCORRECTLY spelt word.

(a) Blotched
(b) Essences
(c) Syllabus
(d) Semmantic

**Answer: (d)**

72. Select the CORRECTLY spelt word.

(a) Ferociuos
(b) Farocious
(c) Ferocious
(d) Feroecious

**Answer: (c)**

73. In the following question, out of the four given options, select the one that best expresses the meaning of the idiom/phrase.
Hold the fort.

(a) To avoid being found guilty of a crime.
(b) To maintain or guard something temporarily
(c) To stop talking about something
(d) To finish something before time

**Answer: (b)**

74. In the following question, out of the four given options, select the one that best expresses the meaning of the idiom/phrase.
Tricks of the trade.

(a) A trick to deceive
(b) Special skills or knowledge
(c) A particular profession
(d) An easy task

**Answer: (b)**

75. Select the word which means the same as the following group of the words.
Lack of skill, ability, or competence.

(a) Ineptitude
(b) Dexterity
(c) Proficiency
(d) Prowess

**Answer: (a)**

76. Which of the following drug cartels is not a Mexican drug cartel?

(a) Juarez Cartel
(b) Sonora Cartel
(c) Tijuana Cartel
(d) Medellín cartel

**Answer: (d)**

77. What was the main reason behind the increasing influence of the Mexican drug trafficking organizations?

(a) The U.S. policies regarding drug control in Mexico were held back.
(b) The U.S. cartels were shut down by the government.
(c) Mexican drug organizations were very powerful compare to any of other cartels.
(d) The demise of the Colombian cartels.

**Answer: (d)**

79. Violence erupted in Mexico after the arrest of key leaders of two cartels. Which two cartels are being talked about in this case?

(a) Tijuana and Gulf cartels
(b) Sonora and Gulf cartels
(c) Tijuana and Sonora cartels
(d) Sinaloa and Sonora cartels

**Answer: (a)**

## Discipline1

101. Which of the following external agencies can exert force on a body even from a distance?

(a) Magnetic forces

(b) Hands

(c) Wind

(d) Stream

**Answer: (a)**

102. A bullet of mass 0.08 kg moving with a speed of 50 ms -1 enters a heavy wooden block and is stopped after a distance of 40 cm. What is the average resistive force exerted by the block on the bullet?

(a) 220N

(b) 250N

(c) 300N

(d) 350N

**Answer: (b)**

103. According to Newton's third law of motion, mark the correct option.
1. Action and reaction act on different bodies and so they can be cancelled out.
2. The internal action and reaction forces between different parts of a body do, however, sum to zero.

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

**Answer: (b)**

104. If the net external force is zero, a body at rest continues to remain at rest and a body in motion continues to move with a uniform velocity. This property of the body is called _____.

(a) Inertia

(b) Acceleration

(c) Mobility

(d) Resistance

**Answer: (a)**

105. Which of the following equations is the correct representation of momentum?
[mass m and velocity v and momentum is denoted by p of the body]

(a) p = m/v

(b) p = v/m

(c) p = mv

(d) p = m-v

**Answer: (c)**

106. Which of the following has the correct value of 1 unit of Work/Energy in J?

(a) 1 erg = 10 -6 J

(b) 1 electron volt (eV) = 1.6 × 10 -19 J

(c) 1 calorie (cal) = 1.186 J

(d) 1 kilowatt hour (kWh) = 3.6 × 10 -6 J

**Answer: (b)**

107. In a ballistics demonstration a police officer fires a bullet of mass 60.0 g with speed 200 ms -1 on soft plywood of thickness 4.00 cm. The bullet emerges with only 8 percent of its initial kinetic energy. What is the emergent speed of the bullet?

(a) 63.2 ms -1

(b) 50.89 ms -1

(c) 119 ms -1

(d) 56.56 ms -1

**Answer: (d)**

108. If the displacement Δx is small, we can take the force F(x) as approximately constant and the work done is then:

(a) ΔW = F(x). Δx

(b) ΔW = F(x)/ Δx

(c) F(x) = W. Δx

(d) ΔW = F(x+Δx)

**Answer: (a)**

109. When light meets a surface separating [illegible]ent media, _____.
Choose the correct code:
1. Reflection occurs
2. Refraction occurs

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

**Answer: (c)**

110. Which of the following is/can be treated as real object?
Choose the correct code.
1. the point object from where the incident rays diverge 2. the point where the incident rays would meet if there were no mirror.

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

**Answer: (a)**

111. For air the refractive index of light is _____.

(a) 1

(b) 0

(c) very close to 1

(d) 2

**Answer: (c)**

112. Which of the following is the basic principle of a branch of physics called fibre optics?

(a) Total internal reflection

(b) Lateral magnification

(c) Angle of minimum deviation

(d) Refraction through thin lenses

**Answer: (a)**

113. Which of the following statements is/are true?
1. the focal length of a converging lens is positive 2. the power of a converging lens is negative 3. the power of a converging lens is positive

(a) 1 and 2 only

(b) 1 and 3 only

(c) 3 only

(d) 2 only

**Answer: (b)**

114. An average human being can hear sound of fre ency upto:

(a) 30 kHz

(b) 20 kHz

(c) 35 kHz

(d) 40 kHz

**Answer: (b)**

115. The waves with the frequency above the audible range of human being are called _____.

(a) Ultrasonic waves

(b) Infrasonic waves

(c) Supersonic waves

(d) Hypersonic waves

**Answer: (a)**

116. Sound waves are:
1. Longitudinal waves 2. Transverse waves

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

**Answer: (a)**

117. The space between the lens and retina of an eye is filled with _____.

(a) Vitreous humour

(b) Ciliary muscle

(c) Aqueous humour

(d) Suspensory ligament

**Answer: (a)**

118. _____ is/are called fluid/s.
1. Liquid
2. Gas

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

**Answer: (c)**

119. Pascal's Law is concerned with -

(a) Forces between two surfaces in contact

(b) Tension in string

(c) Intermolecular forces of gases

(d) Pressure in a liquid

**Answer: (d)**

120. Which of the following statement(s) is/are true'
1. Archimedes Principle is not an independ prin e.
2. Archimedes Principle is an independent pr..
3. Archimedes Principle can be deduced from Newton's Law of Motion.
Choose the correct code–

(a) Only 1 and 3

(b) Only 2

(c) Only 2 and 3

(d) Only 1

**Answer: (a)**

## Discipline2

121. Torricelli is associated with the invention of which of the following devices?

(a) Thermometer

(b) Manometer

(c) Barometer

(d) Spring balance

**Answer: (c)**

122. What will be the wavelength of a wave that is produced in air and travels at a speed of 300 ms -1 at the frequency of 60,000 Hz?

(a) 0.50 cm

(b) 0.40 cm

(c) 0.65 cm

(d) 0.60 cm

**Answer: (a)**

123. Calculate the work done in moving a charge of 5C across two points having a potential difference of 25V.

(a) 5 J

(b) 12.5 J

(c) 125 J

(d) 50 J

**Answer: (c)**

125. Which of the following is the reason for an iron core increasing the magnetic field of a coil of wire?
1. The iron atoms line up to add the magnetic field.
2. Iron is, among other things, attracted to a magnetic field.
Choose the correct code.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

**Answer: (a)**

126. Which of the following type of coal is a shade of dull black with very little visible plant matter?

(a) Peat

(b) Lignite

(c) Sub-bituminous

(d) Anthracite

**Answer: (c)**

127. Which of the following is not a limitation of using hydroelectric power?

(a) Dams can be very expensive to build.

(b) There needs to be a sufficient, and continuously strong water current, or water head, to produce energy.

(c) The hydroelectric power plants cannot be sited at a place of our choice.

(d) Electricity can’t be generated constantly.

**Answer: (d)**

128. Which of the following elements is present in the highest amount (percent by mass) in the human body?

(a) Calcium
(b) Hydrogen
(c) Magnesium
(d) Iron

**Answer: (b)**

129. How is an aerosol formed?

(a) When liquid gets trapped in solid
(b) When mixture of tiny droplets of one liquid is suspended in another
(c) When small droplets of liquid or particles of solid are dispersed in a gas
(d) When small bubbles of gas are trapped in liquid

**Answer: (c)**

130. Which of the following parameters will be of highest importance if we want to separate two miscible liquids by distillation process?

(a) Boiling Point
(b) Freezing Point
(c) Solubility in water
(d) Viscosity

**Answer: (a)**

131. Which of the following methods is most suitable for separation of salt and camphor?

(a) Centrifugation
(b) Evaporation
(c) Sublimation
(d) Chromatography

**Answer: (c)**

132. Which of the following is a property of a mixture and not a compound?

(a) It is formed when elements react.
(b) It has totally different properties as compared to the constituent substances.
(c) It has a variable composition.
(d) The constituents can be separated only by chemical or electrochemical procedures.

**Answer: (c)**

133. We can now produce magnified image of surface of elements showing atoms by using a technique called STM. What is the full-form of STM?

(a) Super Telemetric Microscopy
(b) Scanning Tunnelling Microscopy
(c) Stimulated Telescopic Microscopy
(d) Segmented Telemetric Magnification

**Answer: (b)**

134. Chlorine is obtained as a mixture of two isotopes 35 Cl and 37 Cl . These isotopes are present in the ratio of 4 : 1. What will be the average 17 17
atomic mass of chlorine?

(a) 35.2 u

(b) 35.4 u

(c) 36.1 u

(d) 35.7 u

**Answer: (b)**

135. Which of the following was not an observation in Rutherford's α-Ray scattering experiment?
1. Most of the α-particles were deflected by small angles.
2. A few α-particles were deflected by large angles.
Choose the correct code.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

**Answer: (a)**

136. What is the maximum capacity of electron accommodation of the N-shell in an atom?

(a) 30

(b) 18

(c) 32

(d) 28

**Answer: (c)**

137. Which of the following atoms don't exhibit the valency of 2?

(a) Be

(b) O

(c) Mg

(d) C

**Answer: (d)**

138. Newlands' law of Octaves was not applicable to elements of atomic masses higher than-

(a) 35 u

(b) 40 u

(c) 50 u

(d) 55 u

**Answer: (b)**

139. Mendeleev in his Periodic Table had predicted about an element called Eka-Boron. What is it called now?

(a) Germanium

(b) Gallium

(c) Scandium

(d) Caesium

**Answer: (c)**

140. Which of the following will have the electronic configuration of 2, 8, 18, 32, 18, 8, 1?

(a) Fr

(b) Cs

(c) Rb

(d) Zr

**Answer: (a)**

## Discipline3

141. How many strong acids are there?

(a) 5

(b) 7

(c) 9

(d) 12

**Answer: (b)**

143. Which of the following is an example of a weak base?

(a) Barium hydroxide

(b) Ammonium hydroxide

(c) Caesium hydroxide

(d) Rubidium hydroxide

**Answer: (b)**

144. Which of the following is not a property of ionic compounds?

(a) They are crystalline solids.

(b) These compounds conduct electricity in their molten state and in aqueous solutions.

(c) These compounds are generally soluble in water but are insoluble in organic solvents such as ether, alcohol, carbon tetrachloride etc.

(d) The melting points and boiling points of these compounds are lower than those of covalent compounds.

**Answer: (d)**

146. Consider the reaction
$Cu_{2}(s) + I_{2}(s) \rightarrow CuI(s)$
Which of the following statements is correct?
1. In the reaction a copper atom loses two electrons to become a cupric ion.
2. In the reaction iodine atom gains two electrons to become an iodide ion.
Choose the correct code-

(a) Only 1
(b) Only 2
(c) Both 1 and 2
(d) Neither 1 nor 2

**Answer: (a)**

147. Which of the following is most ductile metal?

(a) Gold
(b) Silver
(c) Mercury
(d) Cadmium

**Answer: (a)**

148. Though metals have high melting points but which of the following metals have very low melting point?

(a) Gallium
(b) Molybdenum
(c) Tungsten
(d) Rhenium

**Answer: (a)**

149. What is the half-life of $^{14}C$?

(a) 5120 years
(b) 5500 years
(c) 5730 years
(d) 6100 years

**Answer: (c)**

150. What is the density of diamond?

(a) 3.51 g $cm^{-3}$
(b) 2.15 g $cm^{-3}$
(c) 4.16 g $cm^{-3}$
(d) 3.78 g $cm^{-3}$

**Answer: (a)**

153. Which of the following is NOT a main raw-material for the manufacture of cement?

(a) Limestone

(b) Gypsum

(c) Clay

(d) Calcium Oxychloride

**Answer: (d)**

155. Which of the following is made by reacting phenol and formaldehyde?

(a) Polythene

(b) Bakelite

(c) PTFE

(d) Nylon 6

**Answer: (b)**

156. Which of the features is NOT correct about Monera?
1. These organisms do not have a defined nucleus or organelles.
2. They are all autotrophic.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

**Answer: (b)**

157. Consider the following statements about a king n – 1. These are heterotrophic eukaryotic organisms.
2. An example of this kingdom is mushroom.
Which kingdom is being talked about?

(a) Protista

(b) Fungi

(c) Plantae

(d) Animalia

**Answer: (b)**

158. Which of the following is an acute disease?

(a) Malaria

(b) Cancer

(c) T.B

(d) Alzheimer's disease

**Answer: (a)**

159. Pellagra is caused due to the deficiency of-

(a) Riboflavin
(b) Niacin
(c) Biotin
(d) Cyanocobalamine

**Answer: (b)**

160. Which of the following is a water-soluble vitamin?

(a) Vitamin A
(b) Vitamin B
(c) Vitamin K
(d) Vitamin D

**Answer: (b)**

## Discipline4

161. How many enzymes are there in the pancreatic juice?

(a) 3
(b) 6
(c) 8
(d) 10

**Answer: (b)**

162. The carbohydrates which are not used immedi y in plants are stored in which of the following forms?

(a) Starch
(b) Protein
(c) Roughage
(d) Glycogen

**Answer: (a)**

163. Gustatory receptor present in-

(a) Nose
(b) Tongue
(c) Hand
(d) Eye

**Answer: (b)**

164. Which of the following statements is correct?

(a) 21 pairs of spinal nerves emerge from the spinal cord.
(b) 12 pairs of cranial nerves emerge from the brain.
(c) 42 pairs of spinal nerves emerge from the spinal cord.
(d) 32 pairs of cranial nerves emerge from the brain.

**Answer: (b)**

165. Where are the reflex arcs formed in our body?

(a) Brain
(b) Spinal cord
(c) Heart
(d) Liver

**Answer: (b)**

166. Leishmania is a parasitic Protozoa which causes _____ disease.

(a) Kala- Azar
(b) Malaria
(c) Dengue
(d) Small pox

**Answer: (a)**

167. Which of the following is known as malarial parasite?

(a) Bunyaviridae
(b) Plasmodium
(c) Wuchereria
(d) Taenia

**Answer: (b)**

168. Many invertebrates like Planaria and some vertebrates like lizards replace lost body-parts by _____.

(a) Fragmentation
(b) Regeneration
(c) Budding
(d) Fission

**Answer: (b)**

169. Who is known as the father of genetics?

(a) Gregor Johann Mendel
(b) Isaac Newton
(c) Aristotle
(d) Robert Hooke

**Answer: (a)**

170. Mendel selected how many pairs of contrasting characters of pea plant for his experiment?

(a) 5
(b) 6
(c) 7
(d) 8

**Answer: (c)**

171. What is the average diameter of the eyeball of a human?

(a) 23 cm
(b) 2.3 mm
(c) 2.3 cm
(d) .23 cm

**Answer: (c)**

172. Myopia can be caused due to– 1. excessive curvature of the eye lens 2. elongation of the eyeball Choose the correct code-

(a) Only 1 but not 2
(b) Only 2 but not 1
(c) Either 1 or 2
(d) Neither 1 nor 2

**Answer: (c)**

173. Which of the following is present in the Prokaryotic cell?

(a) Lysosome
(b) Chloroplast
(c) Cytoplasm
(d) Endoplasmic reticulum

**Answer: (c)**

174. Which of the following is found in plant cells onl

(a) Plastids
(b) Centrosome
(c) Granules
(d) Vacuoles

**Answer: (a)**

175. Which of the following carry out cellular respiration and are called powerhouse of cell?

(a) Ribosomes
(b) Mitochondria
(c) Nucleus
(d) Both Ribosomes and Mitochondria

**Answer: (b)**

176. Which of the following parts of living organisms preferentially absorb UV rays, and its high energy breaks the chemical bonds within these molecules?

(a) Carbohydrate and chromosomes
(b) DNA and proteins
(c) DNA and chromosomes
(d) Carbohydrates and proteins

**Answer: (b)**

177. Biomagnification of which of the following can lead to disturbed calcium metabolism and ultimately thinning of eggshells of birds?

(a) Lead
(b) Mercury
(c) DDT
(d) Zinc

**Answer: (c)**

178. Consider the following statements about an air-pollutant – 1. It is produced by the incomplete combustion of fuels like petrol, natural gas, coal or wood.
2. It is colourless and odourless gas.
Which of the following gases is being talked about?

(a) CO
(b) CO 2
(c) SO 2
(d) NO 2

**Answer: (a)**

179. Which of the following phenomenon converts nitrogen into oxides of nitrogen?

(a) Greenhouse effect
(b) Lightning
(c) Snowing
(d) Raining

**Answer: (b)**

180. Which of the following crops is a major s[illegible]f proteins for energy requirement?

(a) Pigeon pea
(b) Linseed
(c) Maize
(d) Wheat

**Answer: (a)**

## Discipline5

181. For which of the following factors is variety improvement done?
1. Change in maturity duration
2. Wider adaptability
Choose the suitable code.

(a) Only 1
(b) Only 2
(c) Both 1 and 2
(d) Neither 1 nor 2

**Answer: (c)**

182. Which of the following nutrients are provided by fertilisers to plants?
1. Nitrogen
2. Phosphorus
3. Potassium
Choose the correct code.

(a) Only 1 and 2
(b) Only 2 and 3
(c) Only 1 and 3
(d) 1, 2 and 3

**Answer: (d)**

183. How many different species do Indian cattle belong to?

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

**Answer: (b)**

184. How many ways are there for obtaining fish?

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

**Answer: (a)**

185. In which cropping pattern does the farmer grow two crops simultaneously at one time or within a short interval of time from the same field?

(a) Crop rotation
(b) Mixed cropping
(c) Multi cropping
(d) Organic farming

**Answer: (b)**

186. Carrot grass came to India when India imported -

(a) Rice from Israel
(b) Rice from USA
(c) Wheat from Israel
(d) Wheat from USA

**Answer: (d)**

187. In India distribution through the ration system was initiated in the _____.

(a) 1940's
(b) 1950's
(c) 1960's
(d) 1970's

**Answer: (a)**

188. Which of the following is the process of separation of solid from the liquid by allowing the former to settle down and pouring off the latter?

(a) Filtration
(b) Decantation
(c) Titration
(d) Distillation

**Answer: (b)**

190. Taj Mahal is also a victim of pollution which has led to the same to suffer from 'Marble cancer'. Which of the following is mainly responsible for this?

(a) Water pollution
(b) Acid Rain
(c) Smog
(d) Photochemical smog

**Answer: (b)**

## Teaching Methodology

191. Which of the following co-curricular activities not related to the motor development of students?

(a) Clay modelling
(b) Kitchen and flower gardening
(c) Newspaper reading
(d) Book binding

**Answer: (c)**

192. Which of the following is not a process by which children learn?
1. Imitation
2. Observation
Choose the correct code.

(a) Only 1
(b) Only 2
(c) Both 1 and 2
(d) Neither 1 nor 2

**Answer: (d)**

193. In which year did E. L. Thorndike develop the theory of trial and error learning?

(a) 1911
(b) 1912
(c) 1913
(d) 1914

**Answer: (c)**

194. Which of the following is a correct statement regarding CCE?

(a) It includes only the summative evaluation.
(b) Its full-form is Complete and Continuous Evaluation.
(c) It is used to promote all round development of the students.
(d) It however, can't determine the process of learning.

**Answer: (c)**

195. Which of the following chapters of the Right to Education Act, 2009 provide for the duties of appropriate Government, Local authority and Parents?

(a) III
(b) IV
(c) V
(d) VI

**Answer: (a)**

196. Which of the following sections of the Right to F cation Act, 2009 provides for the constitution of State Advisory Council?

(a) 31
(b) 32
(c) 33
(d) 34

**Answer: (d)**

197. In which of the following teaching method laws and principles are derived on the basis of experiences, examples and experiments?

(a) Inductive method
(b) Story-telling method
(c) Heuristic method
(d) Seminar

**Answer: (a)**

198. Which of the following is not a feature of sex?

(a) It is nature-made.
(b) It is the biological construct.
(c) It is individual based.
(d) It changes from time to time

**Answer: (d)**

199. A which stage the child should be engaged in learning principles of science through familiar experiences, working with hands to design simple technological units and modules (e.g. designing and making a working model of a windmill to lift weights) and continuing to learn more on environment and health through activities and surveys?

(a) Primary stage

(b) Upper-primary stage

(c) Secondary stage

(d) Higher-secondary stage

**Answer: (b)**

200. Under which organisation's aided project did NCERT develop an instructional material titled "Science is Doing"?

(a) WHO

(b) UNICEF

(c) OECD

(d) UNESCO

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

## General Awareness

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

## Arithmetic Ability

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | **(d)** | 45 | **(a)** | 46 | **(c)** | 47 | **(d)** | 48 | **(b)** | 49 | **(b)** |
| 50 | **(d)** | 51 | **(a)** | 52 | **(d)** | 53 | **(a)** | 54 | **(b)** | 55 | **(b)** |
| 56 | **(a)** | 58 | **(c)** | | | | | | | | |

## General English

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 61 | **(b)** | 62 | **(d)** | 64 | **(c)** | 65 | **(a)** | 66 | **(c)** | 67 | **(b)** |
| 69 | **(c)** | 70 | **(b)** | 71 | **(d)** | 72 | **(c)** | 73 | **(b)** | 74 | **(b)** |
| 75 | **(a)** | 76 | **(d)** | 77 | **(d)** | 79 | **(a)** | | | | |

## Discipline1

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

## Discipline2

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

## Discipline3

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 141 | **(b)** | 143 | **(b)** | 144 | **(d)** | 146 | **(a)** | 147 | **(a)** | 148 | **(a)** |
| 149 | **(c)** | 150 | **(a)** | 153 | **(d)** | 155 | **(b)** | 156 | **(b)** | 157 | **(b)** |
| 158 | **(a)** | 159 | **(b)** | 160 | **(b)** | | | | | | |

## Discipline4

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

## Discipline5

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 181 | **(c)** | 182 | **(d)** | 183 | **(b)** | 184 | **(a)** | 185 | **(b)** | 186 | **(d)** |
| 187 | **(a)** | 188 | **(b)** | 190 | **(b)** | | | | | | |

## Teaching Methodology

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 191 | **(c)** | 192 | **(d)** | 193 | **(c)** | 194 | **(c)** | 195 | **(a)** | 196 | **(d)** |
| 197 | **(a)** | 198 | **(d)** | 199 | **(b)** | 200 | **(b)** | | | | |