PREVIOUS YEAR PAPER

DSSSB TGT Natural Science (Female) 2021 — 25 September 2021, Shift 2

DSSSB TGT · 25 September 2021 · Shift 2

153 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: 47 (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 2. 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-2/

General Ability

1. Find the wrong term in the letter-cluster series given below:
PBTP, XIZW, FPFZ, NWLE, VDRJ

(a) XIZW
(b) FPFZ
(c) NWLE
(d) VDRJ

Answer: (a)

2. Find the missing term in the following letter-clust eries given below:
CGO17, IQU19, OAA22, ? , AUM31

(a) UPG26
(b) UKG26
(c) VKG26
(d) UKG27

Answer: (b)

3. Select the related word from the given alternatives:
Acoustics : Sound : : Numismatics : ?

(a) Currency
(b) Light
(c) Numbers
(d) Colors

Answer: (a)

4. In the following question, select the related word from the given alternatives.
HDFB : WSUQ : : JECK : ?

(a) TRYZ

(b) YRTZ

(c) YTRZ

(d) YRZT

Answer: (c)

5. In a certain coded language, 'ilm pa nob' is written as 'look at stars', 'het jur pa' is written as 'stars glowing light' and 'kas ho jur' is written as 'light of sun'. How is 'glowing' written in this code language?

(a) pa

(b) jur

(c) het

(d) pa or jur

Answer: (c)

6. In a row of 126 boys, the position of Mahesh is 54th from the top. Ramesh is fifteenth rank below Mahesh. What is the position of Ramesh from the bottom?

(a) 57

(b) 56

(c) 55

(d) 58

Answer: (d)

7. Five friends Aman, Ram, Shyam, Sonu and [illegible]es on separate floor of a 5 floor building,but not necessarily in the same order. The ground floor is numbered 1, the first floor is numbered 2 and so on, the topmost floor is numbered 5.
Only one friend lives above the floor on which Shyam lives. Rajat lives immediately below Ram.
Aman does not live on the lowermost floor.
Ram does not live on an even numbered floor.
Who lives on the floor
immediately above Sonu?

(a) Aman

(b) Ram

(c) Rajat

(d) Shyam

Answer: (c)

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:
No diamond is pearl.
Some pearl are bronze.
Conclusions:
(I) Some pearl are diamond.
(II) No diamond is bronze.

(a) Only I follow

(b) Only II follows

(c) Either I or II follows

(d) Neither I nor II follows

Answer: (d)

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 singers are scientist.
All scientists are pilot.
All pilots are doctor.
Conclusions:
(I) Some scientists are pilot.
(II) All doctor are pilot

(a) Only I follow

(b) Only II follows

(c) Both I and II follow

(d) Neither I nor II follows

Answer: (a)

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 girls are ambitious.
Some ambitious are lazy.
Some lazy are fast.
Conclusions:
(I) Some girls are lazy.
(II) Some lazy are ambitious.
(III) Some ambitious are fast.

(a) Only I follow

(b) Only II follows

(c) Only III follows

(d) None follows

Answer: (b)

11. In the following question, select the related number from the given alternatives.
196 : 169 : : 81 : ?

(a) 64
(b) 72
(c) 100
(d) 144

Answer: (a)

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

(a) Only I follows
(b) Either I or II follows
(c) Both I and II follow
(d) Neither I nor II follows

Answer: (d)

13. In the following question, select the missing number from the given series.
400, 394, 378, 352, 316, ?

(a) 290
(b) 280
(c) 270
(d) 260

Answer: (c)

General Awareness

21. _____ is a distinctive dance form of Kerala.

(a) Kuchipudi
(b) Veeragase
(c) Bihu
(d) Mohiniattam

Answer: (d)

22. The _____ dedicated to Vishnu is the grandest temple of Khajuraho, built by the Chandela king, Dhanga.

(a) Dashavatara temple
(b) Lakshmana temple
(c) Sibsagar temple
(d) Terracotta temple

Answer: (b)

23. Which tennis players won the Italian open in 2021?
    (a) Novak Djokovic
    (b) Andy Murray
    (c) Roger Federer
    (d) Rafael Nadal
    Answer: (d)

24. In which year did Badminton Association of India come into existence?
    (a) 1956
    (b) 1934
    (c) 1948
    (d) 1955
    Answer: (b)

25. "The Wings of Fire is an autobiography of which famous politician?
    (a) Abraham Lincoln
    (b) Manmohan Singh
    (c) A.P.J Abdul Kalam
    (d) Jawaharlal Nehru
    Answer: (c)

26. Which organisation has won three Nobel Peace p[illegible]s?
    (a) World Food Programme
    (b) International Committee of the Red Cross (I[illegible])
    (c) World Health Organization
    (d) UNICEF
    Answer: (b)

27. _____ represents the budget of the central government in the Lok Sabha.
    (a) Defence minister
    (b) Home Minister
    (c) Finance minister
    (d) External Minister
    Answer: (c)

28. The government manages the public finance through which policy?
    (a) Fiscal policy
    (b) Monetary policy
    (c) Supply side policy
    (d) Health policy
    Answer: (a)

29. Which fundamental right of the Indian Constitution prohibits human trafficking?
    (a) Right to constitutional remedies
    (b) Right to Equality
    (c) Right against Exploitation
    (d) Right to Freedom

    Answer: (c)

30. Which article of the Indian Constitution abolishes untouchability?
    (a) Article 37
    (b) Article 20
    (c) Article 17
    (d) Article 80

    Answer: (c)

31. Which of the following is a natural chemical indicator of an acid or base?
    (a) Litmus
    (b) Methyl orange
    (c) Phenolphthalein
    (d) Diphenylcarbazone

    Answer: (a)

32. Name the acid found in spinach?
    (a) Oxalic Acid
    (b) Citric Acid
    (c) Ascorbic Acid
    (d) Tartaric Acid

    Answer: (a)

33. Area wise which is the largest state in India?
    (a) Rajasthan
    (b) Madhya Pradesh
    (c) Maharashtra
    (d) Karnataka

    Answer: (a)

34. Which of the following is the highest peak in the Western Ghats?
    (a) Kalsubai
    (b) Dodabetta
    (c) K-2
    (d) Anai Mudi

    Answer: (d)

35. Where did the 'Jallianwala Massacre' take place?
(a) Calcutta
(b) Amritsar
(c) Lahore
(d) Meerut
Answer: (b)

36. Who visualised and depicted the image of 'Bharat Mata' through a painting?
(a) Rabindranath Tagore
(b) Sarojini Naidu
(c) Abanindranath Tagore
(d) Bankim Chandra Chattopadhyay
Answer: (c)

37. Khilafat Committee was formed in 1919 in the city _____.
(a) Calcutta
(b) Bombay
(c) Hyderabad
(d) Lucknow
Answer: (b)

38. Which of the following state government made th evaranya' scheme to promote Ayurveda?
(a) Andhra Pradesh
(b) Himachal Pradesh
(c) Uttar Pradesh
(d) Madhya Pradesh
Answer: (d)

39. The Sitio Burle Marx has been inscribed as the UNESCO World Heritage site recently. The site is based in which country?
(a) Indonesia
(b) Bhutan
(c) Brazil
(d) UK
Answer: (c)

40. Where is the Chola Temples situated in India?
(a) Karnataka
(b) Tamil Nadu
(c) Assam
(d) Kerala
Answer: (b)

Arithmetic Ability

45. A student solves n question of mathematics. The average of unit digits of eight answers is 7. The average of unit digits of the remaining answers is 2. If the average of unit digits of all the answers is 4, then what is the value of n?

(a) 20
(b) 30
(c) 25
(d) 15

Answer: (a)

46. At a restaurant, Ravi paid 15 percent more than Vinod whereas Gopal paid 20 percent less than Vinod. If their totaql bill was Rs.3540, then how much did Vinod pay?

(a) Rs. 1440
(b) Rs. 1200
(c) Rs. 950
(d) Rs. 1175

Answer: (b)

47. In a super market the cost of a certain item increased by 40 percent and its sales decreased by 8 percent. What is the net increase or decrease in revenue on that item?

(a) 34.2 percent increase
(b) 16.4 percent increase
(c) 3.7 percent decrease
(d) 28.8 percent increase

Answer: (d)

48. If an article is marked up at 25 percent and then a discount of 12 percent is offered, a profit of Rs. 108 is made. What is the amount of discount offered?

(a) Rs.252
(b) Rs.162
(c) Rs.238
(d) Rs.324

Answer: (b)

49. The marked price of an item is 10 percent more than the cost price. 10 percent of discount is given on marked price. The shopkeeper will get:

(a) No loss, No profit
(b) Loss of 5 percent
(c) Profit of 1 percent
(d) Loss of 1 percent

Answer: (d)

50. The ratio of sugar to water in solution A is 1 : 4 and the ratio of salt to water in solution B is 1 : 26. To make an ORS solution, A and B are mixed in 2 : 3. Find the ratio of sugar to salt in ORS.

(a) 45 : 16
(b) 52 : 15
(c) 18 : 5
(d) 12 : 7

Answer: (c)

52. At the rate of 12 percent the amount invested earns a simple interest of Rs. 2100 after 7 years. Had the interest been 2 percent more, how much more interest would it have earned?

(a) Rs. 295
(b) Rs. 304
(c) Rs. 350
(d) Rs. 255

Answer: (c)

54. A train covers a distance in 70 minutes, if it runs at a speed of 72 km/hr on an average. The speed at which the train must run to reduce the time of journey to 45 minutes, will be:

(a) 125 km/hr
(b) 135 km/hr
(c) 105 km/hr
(d) 112 km/hr

Answer: (d)

55. Two pipes A and B can fill a tank with w[illegible]r in [illegible]min. & 24 min. respectively. Pipe C can empty the tank in 30 min. First A and B are opened.
After 9 min C is opened. The total time in which the tank would be filled up is?

(a) 3 min
(b) 12 min
(c) 7 min
(d) 15 min

Answer: (b)

57. What is the longest altitude of a triangle whose sides are 56cm, 39 cm & 25 cm?

(a) 35.6 cm
(b) 38.6 cm
(c) 37.6 cm
(d) 33.6 cm

Answer: (d)

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 problem is how most central banks still tends to function under the operative and functional framework, shadowing the work of Milton Friedman.

(a) The problem is how most central banks still tends to function
(b) under the operative and functional framework,
(c) shadowing the work of Milton Friedman
(d) No error

Answer: (a)

62. One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.
The polymers, called polypeptides, break apart into building blocks called amino acids when heated with just the right amount of acid.

(a) The polymers, called polypeptides, break apart into
(b) building blocks called amino acids when heated
(c) with just the right amount of acid
(d) No error

Answer: (d)

65. Select the most appropriate option to fill in the blank.
_____ many people live in the cities, others live in the countryside growing crops.

(a) While
(b) About
(c) Among
(d) Whether

Answer: (a)

66. Select the most appropriate option to fill in the blanks.
Monalisa has _____ up on her freewheeling lifestyle to settle down _____ her baby daughter.

(a) give, from
(b) given, with
(c) given, upon
(d) gave, into

Answer: (b)

67. Select the most appropriate option to fill in the blanks.
The internal form _____ the very substance of its nature which is _____ "swarupa".

(a) constitutes, calling
(b) constitute, called
(c) constituting, calls
(d) constitutes, called

Answer: (d)

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

(a) Hidden
(b) Sharp
(c) Harmful
(d) Profitable

Answer: (d)

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

(a) Base
(b) Zero
(c) Peak
(d) Pits

Answer: (a)

71. Select the INCORRECTLY spelt word.

(a) Originate
(b) Ethics
(c) Vorocious
(d) Bigwig

Answer: (c)

72. Select the CORRECTLY spelt word.

(a) entreprenaur
(b) entepreneur
(c) entrepreneur
(d) entreprennuer

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.
Bide one's time

(a) To happens quite often, but not all the time
(b) To feel angry or annoyed
(c) To not accept any kind of antisocial behaviour
(d) To wait quietly for a good opportunity to do something

Answer: (d)

74. In the following question, out of the four given options, select the one which best expresses the meaning of the idiom/phrase.
Sail close to the wind

(a) To turn pale

(b) Strong determination

(c) Ups and downs

(d) To do something that is dangerous

Answer: (d)

75. Select the word which means the same as the following group of the words.
One who studies insect life.

(a) Naturalist

(b) Entomologist

(c) Cardiologist

(d) Activist

Answer: (b)

77. The Sound of Music is an adaptation of the stage musical of the same name. Who composed this musical stage?

(a) Oscar Hammerstein II

(b) Richard Rodgers

(c) Julie Andrews

(d) Christopher Plummer

Answer: (b)

Discipline1

101. Which of the following statements is incorrect?
1. When we connect resistances in parallel, the total resistance is smaller than the smallest of the resistances involved.
2. Multimeter consists of Ammeter, Voltmeter and Ohm meter.
Choose the correct code.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (d)

102. Compute the heat generated while transferring 100 kC of charge in one hour through a potential difference of 75V.

(a) 7.0 MJ

(b) 7.5 MJ

(c) 8.1 MJ

(d) 8.4 MJ

Answer: (b)

103. Which of the following devices work on the principle of electromagnetic induction?

(a) Electric kettle

(b) Electric bell

(c) Electric lamp

(d) Electric generator

Answer: (d)

104. What is JC -1 a unit of?

(a) Potential

(b) Current

(c) Resistance

(d) Charge

Answer: (a)

105. Which of the following statements is/are true?
1. Motion is a combined property of the object under study and the observer.
2. There is absolute rest or absolute motion.
Choose the correct code.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (a)

106. The dimension of acceleration is-

(a) LT -3

(b) LT -1

(c) LT -2

(d) LT

Answer: (c)

108. Which of the following statements is/are true in connection with β-decay?
1. Neutron changes itself into proton.
2. A neutron emits an electron only.
3. A neutron emits an electron and a particle called anti-neutrino.
Choose the correct code.

(a) Only 1

(b) Only 1 and 2

(c) Only 3

(d) Only 1 and 3

Answer: (d)

109. Weak forces are-

(a) like gravitational forces

(b) like electromagnetic forces

(c) like nuclear forces

(d) different from gravitational, electromagnetic and nuclear forces

Answer: (d)

110. Which of the following is true about Pascal's Law?

(a) If the pressure in a liquid is changed at a particular point, the change is transmitted to the entire liquid, without being diminished in magnitude.

(b) If the pressure in a liquid is changed at a particular point, the change is not transmitted to the entire liquid.

(c) If the pressure in a liquid is changed at a particular point, the change is transmitted to that point only, without being diminished in magnitude.

(d) If the pressure in a liquid is changed at a particular point, the change is transmitted to the entire liquid, with diminished magnitude.

Answer: (a)

111. _____ is a device to measure the pressure in a closed vessel containing a gas.

(a) Barometer

(b) Manometer

(c) Aspirator pump

(d) Venturi Tube

Answer: (b)

112. 1 atmospheric pressure =

(a) 1.01 × 10 5 Pa

(b) 1.01 × 10 10 Pa

(c) 2.01 × 10 5 Pa

(d) 1.01 × 10 8 Pa

Answer: (a)

113. The basic laws of reflection of light are applicable for - 1. Plain smooth surfaces
2. Curved smooth surfaces
Choose the correct code.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (c)

114. A virtual image is formed at the point- 1. from where the rays seem to diverge.
2. where the reflected rays intersect.
Choose the correct code.

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

Answer: (a)

115. In case of lateral magnification of image, which of the following is true?
1. The height of the object (placed perpendicular to the principal axis) is taken to be positive.
2. The height of the image is taken to be positive.
3. The height of the image may be taken as positive or negative in different cases.
Choose the correct code.

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

Answer: (d)

116. For vacuum the refractive index is-

(a) less than 1
(b) equal to 0
(c) equal to 1
(d) more than 1

Answer: (c)

117. In case of total internal reflection, the entire light is _____ back into the _____ medium.

(a) reflected, first
(b) reflected, second
(c) refracted, first
(d) refracted, second

Answer: (a)

118. The surfaces of a lens maybe - 1. Both convex
2. Both concave
3. One convex and one concave

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

Answer: (d)

119. 1 atomic mass unit (u) is equivalent to about _____ of energy.

(a) 931 MeV

(b) 691 MeV

(c) 949 MeV

(d) 654 MeV

Answer: (a)

120. Which of the following kinds of waves is/are audible?
1. Infrasonic waves
2. Ultrasonic waves
Choose the correct code.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (d)

Discipline2

121. A wave of wavelength 0.60 cm is produced in air and it travels at a speed of 300 ms -1 . What will be the frequency of the wave?

(a) 50 kHz

(b) 55 kHz

(c) 60 kHz

(d) 65 kHz

Answer: (a)

122. When a particle is projected upwards, its kinetic energy-

(a) increases

(b) decreases

(c) remains unchanged

(d) can't be determined

Answer: (b)

123. If the resultant force acting on a particle is perpendicular to its velocity then- 1. The speed of the particle changes.
2. The speed of the particle does not change.
3. Kinetic energy of the particle does not change.
Choose the correct code.

(a) Only 1

(b) Only 1 and 3

(c) Only 2 and 3

(d) Only 3

Answer: (c)

124. A particle of mass 40 g is thrown vertically upwards with a speed of 10 ms -1 . Find the work done by the force of gravity during the time the particle goes up.

(a) - 1.0 J
(b) - 2.0 J
(c) - 0.20 J
(d) - 0.40 J

Answer: (b)

125. Which of the following is not a limitation of geothermal energy?

(a) If harnessed incorrectly, geothermal energy can produce pollutants.
(b) Improper drilling into the earth can release hazardous minerals and gases.
(c) Geothermal power plant sites are prone to running out of steam in the long run.
(d) Geothermal Power plants have very high running costs.

Answer: (d)

126. Which of the following statements is incorrect?

(a) About 60 percent of the incoming solar radiation is absorbed by the upper atmospheres.
(b) Solar power plants can not produce energy if the sun is not shining.
(c) Establishment of solar power stations can be very expensive.
(d) Solar panels need to be regularly maintained and cleaned to continue generating electricity.

Answer: (a)

127. Large amounts of crops high in sugar or starch c .ent are grown, and then fermented with yeast to produce-

(a) Ethanol
(b) Methane
(c) Fertilizers
(d) Petroleum

Answer: (a)

128. When a magnesium ribbon is burnt in oxygen, it gets converted to _____.

(a) Magnesium oxide
(b) Magnesium hydride
(c) Magnesium chloride
(d) Magnesium dioxide

Answer: (a)

129. Complete the equation: Zinc + Sulphuric acid $\rightarrow$ Zinc sulphate + _____

(a) Oxygen
(b) Water
(c) Hydrogen
(d) Ozone

Answer: (c)

131. The process of dissolving an acid or a base in water is a highly _____ one.

(a) Exothermic
(b) Endothermic
(c) Slow
(d) Unreactive

Answer: (a)

132. When pH of rain water is less than _____, it is called acid rain.

(a) 7.0
(b) 7.5
(c) 5.6
(d) 8.0

Answer: (c)

133. Tooth enamel, made up of _____ is the hardest substance in the body.

(a) Calcium silicate
(b) Calcium bicarbonate
(c) Calcium sulphate
(d) Calcium hydroxyapatite

Answer: (d)

134. The non-metals are either solids or gases except ___ which is a liquid.

(a) Iodine
(b) Mercury
(c) Bromine
(d) Sulphur

Answer: (c)

135. Alkali metals have-

(a) high densities and low melting points.
(b) low densities and low melting points.
(c) low densities and high melting points.
(d) high densities and high melting points.

Answer: (b)

136. Anodising is a process of forming a thick oxide layer of _____.

(a) Sulphur
(b) Aluminium
(c) Phosphorus
(d) Chlorine

Answer: (b)

137. Metal like _____ reacts with cold water so violently and in an exothermic way that the evolved hydrogen immediately catches fire.

(a) Calcium
(b) Zinc
(c) Potassium
(d) Magnesium

Answer: (c)

138. The boiling point of Ethanol (CH CH OH) is:
3 2

(a) 351 K
(b) 111 K
(c) 334 K
(d) 391 K

Answer: (a)

139. In which of the following, each carbon atom is bonded to four other carbon atoms forming a rigid three-dimensional structure?

(a) Graphite
(b) Diamond
(c) Carbon dioxide
(d) Such a kind doesn't exist

Answer: (b)

140. Which of the following of an element h[illegible] sim[illegible] chemical properties, but different atomic masses?

(a) Isotopes
(b) Isotones
(c) Isobars
(d) Isodiaphers

Answer: (a)

Discipline3

141. Electronic configuration of _____ resembles that of alkali metals.

(a) Lithium
(b) Hydrogen
(c) Chlorine
(d) Zinc

Answer: (b)

142. In 1913, Henry Moseley showed that the _____ of an element is a more fundamental property than its atomic mass.

(a) Atomic number

(b) Strength

(c) Viscosity

(d) Density

Answer: (a)

143. With increase in temperature the _____ of the particles of the matter also increases.

(a) Weight

(b) Kinetic energy

(c) Static energy

(d) Mass

Answer: (b)

144. Which of the following definitions of latent heat of fusion is correct?

(a) The amount of heat energy that is required to change 1 kg of a solid into liquid at atmospheric pressure at its melting point is known as the latent heat of fusion.

(b) The amount of heat energy that is required to change 1 g of a gas into liquid at atmospheric pressure at its melting point is known as the latent heat of fusion.

(c) The amount of heat energy that is required to change 10 kg of a solid into liquid at atmospheric pressure at its melting point is knowr the latent heat of fusion.

(d) The amount of heat energy that is required tc ange any amount of a solid into liquid at atmospheric pressure at its melting point is kno as the latent heat of fusion.

Answer: (a)

145. The atmospheric pressure at sea level is _____, and is taken as the normal atmospheric pressure.

(a) 1 Pascal

(b) 1 atmosphere (atm)

(c) 1.01 × 10 5 atmosphere (atm)

(d) 10 Pascal

Answer: (b)

146. Which of the following states of matter is formed by cooling a gas of extremely low density, about one-hundred-thousandth the density of normal air, to super low temperatures?

(a) Solid

(b) Liquid

(c) Plasma

(d) Bose- Einstein condensate

Answer: (d)

147. The rate of evaporation increases with:

(a) A decrease of surface area

(b) A decrease of temperature

(c) An increase in humidity

(d) An increase in wind speed

Answer: (d)

148. The maximum number of electrons that can be accommodated in the outermost orbit is:

(a) 16

(b) 12

(c) 10

(d) 8

Answer: (d)

149. Which of the following are called valence electrons?

(a) The electrons present in the outermost shell of an atom.

(b) The electrons present in the innermost shell of a atom.

(c) The electrons which are present inside the nucleus.

(d) The electrons which have no electric charge.

Answer: (a)

150. The mass number is defined as the sum of the total number of _____ present in the nucleus of an atom.

(a) Protons

(b) Electrons and protons

(c) Protons and neutrons

(d) Neutrons

Answer: (c)

151. Protium, Deuterium and Tritium are all isotopes of which of the following elements?

(a) Sodium

(b) Potassium

(c) Chlorine

(d) Hydrogen

Answer: (d)

152. An isotope of _____ is used in the treatment of cancer.

(a) uranium

(b) cobalt

(c) iodine

(d) chlorine

Answer: (b)

153. Which of the following are raw-materials required for making glass?

(a) Sodium carbonate and Limestone only.
(b) Sodium carbonate, limestone and silica only.
(c) Limestone, Clay and Gypsum only.
(d) Limestone, Silica and gypsum only.

Answer: (b)

154. Which of the following is prepared by a reaction of adipic acid and hexamethylenediamine?

(a) Bleaching powder
(b) Plaster of Paris
(c) Nylon
(d) Synthetic rubber

Answer: (c)

155. Which kind of drugs use divinyl ethers, cyclopropane?

(a) Anaesthetics
(b) Antibiotics
(c) Analgesics
(d) Antacids

Answer: (a)

156. Which of the following protozoan organism is res ısible for sleeping sickness?

(a) Trypanosarna
(b) Leshmania
(c) Sarcodina
(d) Mycetozoa

Answer: (a)

157. Which of the following bacterium is responsible for peptic ulcers?

(a) E. coli
(b) Helicobacter pylori
(c) Clostridium perfringens
(d) Chloroflexi

Answer: (b)

158. Which of the following is an example of Pteridophyta?

(a) Marsilea
(b) Cladophora
(c) Funaria
(d) Marchantia

Answer: (a)

159. The oesophagus and the lining of the mouth are covered with _____ epithelium.

(a) squamous
(b) columnar
(c) cuboidal
(d) stratified

Answer: (a)

160. Which of the following is not included in the five R's to save the environment?

(a) Refuse
(b) Reuse
(c) Reduce
(d) Reproduce

Answer: (d)

Discipline4

161. Which of the following is a group of bacteria, found in human intestines, whose presence in water indicates contamination by disease-causing microorganisms?

(a) Campilobacter
(b) Salmonella
(c) Coliform
(d) Listeria

Answer: (c)

162. If one bacterium divides, and then the resulting two bacteria divide again, the four individual bacteria generated would be very similar. There would be only very minor differences between them, generated due to:

(a) defects in their reproductive organs
(b) selection of variants by environmental factors
(c) advantages in survival
(d) small inaccuracies in DNA copying

Answer: (d)

163. In case of flowering plants, after fertilisation, the zygote divides several times to form an embryo within the _____.

(a) Pollen tube
(b) Ovule
(c) Stigma
(d) Stamen

Answer: (b)

164. Which of the following flower is bisexual?

(a) Papaya
(b) Watermelon
(c) Hibiscus
(d) Pumpkin

Answer: (c)

165. Which of the following methods of reproduction is followed by Bryophyllum?

(a) Sporation
(b) Vegetative propagation
(c) Binary fission
(d) Regeneration

Answer: (b)

166. Which of the following is essential for the synthesis of thyroxin?

(a) Copper
(b) Iodine
(c) Sodium
(d) Potassium

Answer: (b)

167. Which of the following structures protect the spinal cord?

(a) Vertebral coloumn
(b) Epimysium
(c) Perimysium
(d) Fascicle

Answer: (a)

168. Which of the following endocrine gland releases growth hormone in all organs?

(a) Adrenal Gland
(b) Ovaries
(c) Pituitary gland
(d) Thyroid gland

Answer: (c)

169. Which of the following is not a part of neuron?

(a) Dendrite
(b) Axon
(c) Nucleus
(d) Deltoid

Answer: (d)

170. Where does the first step of nutrition in organisms, i.e., the break-down of glucose (a six-carbon molecule, into a three-carbon molecule called pyruvate) takes place?

(a) chromatin
(b) mitochondria
(c) nucleus
(d) cytoplasm

Answer: (d)

171. During the digestion in stomach,the hydrochloric acid creates an acidic medium which facilitates the action of the _____ enzyme.

(a) papain
(b) trypsin
(c) pepsin
(d) hydrolase

Answer: (c)

172. Which of the following doesn't happen during the process of photosynthesis?

(a) Absorption of light energy by chlorophyll
(b) Conversion of light energy to chemical energy and splitting of water molecules into hydrogen and oxygen
(c) Reduction of carbon dioxide to carbohydrates
(d) Releasing water vapour into air

Answer: (d)

173. The splitting of light into its componen[illegible]olour[illegible] called _____.

(a) dispersion
(b) bending
(c) inversion
(d) convulsion

Answer: (a)

174. Which of the following defects can be corrected by using a convex lens of appropriate power?

(a) Presbyopia
(b) Hypermetropia
(c) Myopia
(d) Cataract

Answer: (b)

176. Which of the following can't cause eutrophication?

(a) Nitrates
(b) Phosphates
(c) Ammonium salts
(d) Oil slick

Answer: (d)

177. On which of the following does the natural aging of lakes NOT depend?
1. Climate
2. Size of the lake
Choose the correct code.

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

Answer: (d)

178. Which of the following factors influence winds?
1. Rotation of the earth
2. Presence of mountain ranges Choose the correct code.

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

Answer: (c)

179. Which of the following statements is incorrect?

(a) Topsoil that is bare of vegetation, is likely to be removed very quickly.
(b) Vegetative cover on the ground has a role to pl in the percolation of water into the deeper layers.
(c) The process of soil erosion is very easy to re se.
(d) The soil that we see today in one pl has en created over a very long period of time.

Answer: (c)

180. Which of the following is not a biogeochemical cycle?

(a) Water-cycle
(b) Nitrogen-cycle
(c) Oxygen-cycle
(d) Ozone-cycle

Answer: (d)

Discipline5

181. Which of the following is a crop that is a major source of essential fats?

(a) Black gram
(b) Millets
(c) Pea
(d) Mustard

Answer: (d)

182. Which of the following statements is correct regarding crop-production management?

(a) There is no relation between higher inputs and yields.

(b) There is an inverse relation between higher inputs and yields.

(c) There is a correlation between higher inputs and yields.

(d) There is sometimes a relation and sometimes no relation between higher inputs and yields.

Answer: (c)

183. Which of the following is used as bio-pesticides in organic farming?

(a) Recycled farm-wastes

(b) Blue-green algae

(c) Neem leaves

(d) Organic manures

Answer: (c)

184. Which of the following statements is incorrect about cattle farming?

(a) Milk production depends totally on the duration of the lactation period.

(b) Milk production can be increased by increasing the lactation period.

(c) Exotic or foreign breeds (for example, Jersey, Brown Swiss) are selected for long lactation periods.

(d) Local breeds (for example, Red Sindhi, Sahiwal) show excellent resistance to diseases

Answer: (a)

185. Fish culture can be done in combination with wh of the following crops?

(a) Cotton

(b) Rice

(c) Wheat

(d) Groundnuts

Answer: (b)

186. How many nutritive elements are required by plants?

(a) 12

(b) 14

(c) 16

(d) 18

Answer: (c)

187. Parathion and Sevin are sprayed on young plants to-

(a) quicken their growth.

(b) prevent pests and diseases.

(c) protect them from excessive sunlight.

(d) protect them from excessive cold.

Answer: (b)

188. Artificial insemination can be done for– 1. Horses
2. Goats
Choose the correct code.

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

Answer: (c)

189. When soap is added to hard water, which contains calcium and magnesium ions, what precipitate is formed?

(a) Calcium or Magnesium chlorides
(b) Calcium or Magnesium phosphates
(c) Calcium or Magnesium stearates
(d) Calcium or Magnesium sulphates

Answer: (c)

190. Which of the following is an exclusive example of industrial sources of soil pollution?

(a) Kitchen waste
(b) Fertilizers
(c) Plastic bottles
(d) Fly ash

Answer: (d)

Teaching Methodology

191. Which of the following is a state of mind which reflects likes and dislikes of the learner?

(a) Attitude
(b) Aptitude
(c) Maturation
(d) Intelligence

Answer: (a)

192. An average of how many words are accumulated in a child of 6 years?

(a) About 3550 words
(b) About 2560 words
(c) About 1500 words
(d) About 860 words

Answer: (b)

193. Who was the chairman of the review committee which in 1977 recommended that science at the secondary stage should be offered through two equivalent alternate courses?

(a) Ishwarbhai Patel
(b) Ravindran K.
(c) Raghavendra Sai
(d) Rajeev Tyagi

Answer: (a)

194. Which of the following class range falls under the Primary Stage?

(a) I-V
(b) I-VII
(c) II-VI
(d) III-VI

Answer: (a)

195. The SITE experiment was started in the 1970s. What does it stand for?

(a) Science Induced Technological Experiment
(b) Science Influenced Television Education
(c) Satellite Instructional Television Experiment
(d) Satellite Instructional Television Education

Answer: (c)

196. How many general teaching moves were identif by Henderson in 1963 as being essential to teach any rule?

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

Answer: (c)

197. Which teaching method is Kilpatric associated with?

(a) Discovery method
(b) Heuristic method
(c) Project method
(d) Role playing method

Answer: (c)

198. Which of the following is a function of a teacher?
1. Maintaining record of pupil's attendance.
2. Planning for curricular and co-curricular activities.
Choose the correct code.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (c)

199. Which of the following is not a characteristic of learning process?

(a) Learning is goal-directed.

(b) Learning is a passive process.

(c) Learning is the outcome of the interaction of the individual with the environment.

(d) Learning is intentional.

Answer: (b)

200. According to Bandura (1977) how many distinct processes are involved in observational learning?

(a) 2

(b) 3

(c) 4

(d) 5

Answer: (c)

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

General Awareness

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

Arithmetic Ability

45	**(a)**	46	**(b)**	47	**(d)**	48	**(b)**	49	**(d)**	50	**(c)**	52	**(c)**	54	**(d)**		
55	**(b)**	57	**(d)**														

General English

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

Discipline1

101	**(d)**	102	**(b)**	103	**(d)**	104	**(a)**	[illegible]	**(a)**	106	**(c)**	108	**(d)**	109	**(d)**		
110	**(a)**	111	**(b)**	112	**(a)**	113	[illegible]	4	**(a)**	115	**(d)**	116	**(c)**	117	**(a)**		
118	**(d)**	119	**(a)**	120	**(d)**												

Discipline2

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

Discipline3

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

Discipline4

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

Discipline5

181	**(d)**	182	**(c)**	183	**(c)**	184	**(a)**	185	**(b)**	186	**(c)**
187	**(b)**	188	**(c)**	189	**(c)**	190	**(d)**				

Teaching Methodology

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