PREVIOUS YEAR PAPER

DSSSB PGT Biology 2021 — 16 July 2021, Shift 1

DSSSB PGT · 16 July 2021 · Shift 1

257 of the paper's 300 questions · +1 for a correct answer, −0.25 for a wrong one · 180 minutes

Left out of the original paper: 43 (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 16 July 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-pgt/previous-year-papers/dsssb-pgt-2021-biology-16-jul-shift-1/

Mental Ability

1. From the given responses, find the missing term in the series.
E1.6A, I2.5E, M3.6I, Q4.9O , ?

(a) U6.4U
(b) H6.4X
(c) M6.4G
(d) M6.4U

Answer: (a)

2. Select the option whose letters, when arranged fro eft to right in the below series, will complete the series logically.
T _ _ K _ O _ T T _ _ K _ _ R _

(a) OOKRRRKOT
(b) ORORORKOR
(c) ORKKRRKOT
(d) ORKRORKOT

Answer: (d)

3. Choose the option that is unrelated (or odd one out amongst) the given set of words.

(a) Autopsy
(b) Biopsy
(c) Leprosy
(d) Necropsy

Answer: (c)

4. Select the option in which the words share the same relationship as that shared by the given pair of words.
Knowledge : Awareness

(a) Painting : Painter
(b) Disease : Doctor
(c) Game : Player
(d) Bacteria : disease

Answer: (d)

5. In the following question, select the related letters from the given alternatives.
ROME : VROF : : TURN : ?

(a) XXTO

(b) YYZX

(c) RROQ

(d) DCCC

Answer: (a)

6. In a certain code language, 'INTESTINE' is written as 'TNITSEENI'. How will 'FREQUENCY' be written as in that language?

(a) ERFEUQYCN

(b) ERFUEYQCN

(c) REFEUQYNC

(d) QESEUENCT

Answer: (a)

7. 4 girls (G , G , G , G) and 3 boys (B , B , B) are to sit for a dinner such that no two boys should sit together nor two girls. If they are sitting 1 2 3 4 1 2 3
successively in this order, what is the position, respectively, of B2 and G3?

(a) 3rd and 4th

(b) 4th and 5th

(c) 5th and 6th

(d) 2nd and 3rd

Answer: (b)

8. Q is the father-in-law of U's mother. P is the brother of G. D is the father of U. D has a sister, whose mother is T. Q has only one daughter who is R. How is G related to D?

(a) Sister

(b) Wife

(c) Sister-in-law

(d) Brother

Answer: (b)

9. In the question below, there are two statements followed by four conclusions given in options. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusion logically follow(s) from the given statements.
Statements:
No place is peace.
Some peace is plate.

(a) Some peace is plate

(b) Some plate is place

(c) All place is plates

(d) Some place is plate

Answer: (a)

10. In the question below, there are three statements followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusion logically follow(s) from the given statements.
Statements:
All Strong are weak.
Some weak are Tigers.
All Tigers are Sharp.
Conclusions:
I. Some Strong are Sharp.
II. No Strong is Sharp.

(a) If only conclusion I follows

(b) If only conclusion II follows

(c) If either conclusion I or II follows

(d) If neither conclusion I nor II follows

Answer: (c)

11. In the question given, relations between different elements are shown in the statements. These statements are followed by two conclusions. Find out which of the given conclusions follow(s) the given statements and select the correct alternative from the given choices.
Statements:
R > S > T; R > F > B.
Conclusions:
I. B > S
II. F < T

(a) Only I is true

(b) Only II is true

(c) Both I & II are true

(d) Neither I nor II is true

Answer: (d)

12. If '+' means '÷', '–' means '×', '×' means '–' and '÷' means '+', which of the following will be the value of expression.
16 ÷ 8 – 4 + 2 × 4 = ?

(a) 16

(b) 28

(c) 32

(d) 44

Answer: (b)

16. Geeta starts walking in the north direction and after walking some distance she took a left turn followed by a right turn. After that she took two consecutive left turns, now she is walking in which direction?

(a) South

(b) North

(c) East

(d) West

Answer: (a)

General Awareness

21. Which of the following languages was originally used for the composition of the National Anthem of India?

(a) Hindi
(b) Sanskrit
(c) Bengali
(d) Gujarati

Answer: (c)

22. Which of the following is not there in the Amer Fort?

(a) Diwan-e-Aam
(b) Diwan-e-Khaas
(c) Sukh Niwas
(d) Roopmati Mahal

Answer: (d)

23. Kelucharan Mohapatra is an eminent dancer in which of the following dances?

(a) Bharatnatyam
(b) Odissi
(c) Kathakali
(d) Kathak

Answer: (b)

24. Which of the following Prime Minsiters released the stamp "Wheat Revolution" to appreciate the Green Revolution?

(a) Jawaharlal Nehru
(b) Indira Gandhi
(c) Lal Bahadur Shastri
(d) Narendra Modi

Answer: (b)

25. Which of the following organizations in India is known as the "Lender of Last Resort"?

(a) Finance Ministry
(b) Reserve Bank of India
(c) State Bank of India
(d) Home Ministry

Answer: (b)

26. Which of the following refrective defects of vision is also known as Short-sightedness?

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

Answer: (a)

27. Who discovered the vaccine for smallpox in 1798?
    (a) Edward Jenner
    (b) James Phipps
    (c) Alexander Fleming
    (d) Robert Koch
    Answer: (a)

28. As of June 2021, which of the following is the largest state in India in terms of area?
    (a) Uttar Pradesh
    (b) Maharashtra
    (c) Rajasthan
    (d) Madhya Pradesh
    Answer: (c)

29. Which of the following rivers originates from a glacier near Bokhar Chu in the Tibetan region?
    (a) Ravi
    (b) Chenab
    (c) Indus
    (d) Brahmaputra
    Answer: (c)

30. In which year the Battle of Plassey was fought?
    (a) 1557
    (b) 1763
    (c) 1773
    (d) 1757
    Answer: (d)

31. Which of the following Harappan cities was located on Khadir Beyt in the Rann of Kutch?
    (a) Kalibangan
    (b) Dholavira
    (c) Mohenjo Daro
    (d) Lothal
    Answer: (b)

32. Who was the first Governor-General of Free India?
    (a) Lord Mountbatten
    (b) Lord Warren Hastings
    (c) C Rajgopalchari
    (d) Lord Wavell
    Answer: (a)

33. Hindi in Devanagari Script is the official language of India according to which article of the Indian Constitution?

(a) 354
(b) 341
(c) 313
(d) 343

Answer: (d)

34. Which of the following articles provides that Right to Education is a Fundamental Right?

(a) 17
(b) 21A
(c) 19
(d) 32

Answer: (b)

35. Which of the following Indians is the latest recipient of the Nobel Prize?

(a) Amartya Sen
(b) Kailash Satyarthi
(c) V Ramakrishnan
(d) Abhijit Banerjee

Answer: (d)

36. Who is the author of the novel "A passage to Ind'

(a) H G Wells
(b) E M Forster
(c) Pt. Jawaharlal Nehru
(d) Edward Gibbon

Answer: (b)

37. Where was the first ever ICC Cricket World Cup organized?

(a) West Indies
(b) Australia
(c) England
(d) India

Answer: (c)

38. Where is the headquarters of FIFA located?

(a) Germany
(b) United Kingdom
(c) Switzerland
(d) USA

Answer: (c)

39. Which of the following organizations developed the COVID-19 vaccine Covaxin?
(a) Pfizer
(b) Indian Medical Association
(c) Serum Institute of India
(d) Bharat Biotech
Answer: (d)

40. As of June 2021, who is the President of Palestine?
(a) Mahmoud Abbas
(b) Mohammad Ibrahim Shtayyeh
(c) Benjamin Netanyahu
(d) Reuven Rivlin
Answer: (a)

Arithmetic Ability

43. HCF of two numbers is 18 and their product is 2196. What is the LCM of these numbers?
(a) 98
(b) 122
(c) 108
(d) 112
Answer: (b)

44. Find the largest number that divides 102, 141, 2[illegible]nd leaves the same remainder in each case.
(a) 17
(b) 26
(c) 39
(d) 56
Answer: (c)

46. Average of 7 numbers is calculated as 59, but it is found that one number is wrongly taken as 83 instead of 27. Find the correct average.
(a) 53
(b) 56
(c) 51
(d) 57
Answer: (c)

47. If the price of a pen decreases by 12.5 percent, then Tim can buy 2 more pens for Rs. 112. What is the initial price (in Rs.) of each pen?
(a) Rs.4
(b) Rs.14
(c) Rs.8
(d) Rs.7
Answer: (c)

48. The population of a town is 1500. If the number of males increases by 8 percent and that of the females by 10 percent, then the population would increases to 1630. Find the number of females in the town.

(a) 300
(b) 500
(c) 400
(d) 600

Answer: (b)

49. A shopkeeper sells sugar in such a way that the selling price of 950 gm is the same as the cost price of one kilogram, find his gain percent.

(a) 5
(b) 50/19
(c) 100/19
(d) 100/21

Answer: (c)

50. The age of 4 persons are in the ratio of 13:21:10:25, and their average age is 69 years. Find the difference between the age of the oldest and the youngest person.

(a) 80 years
(b) 30 years
(c) 40 years
(d) 60 years

Answer: (d)

51. A bag contains Rs.1, 50 paisa and 25 paisa in the ratio of 3:4:8 respectively. If total value of money in the bag is Rs.840. Find the no. of 50 paisa coins in the bag.

(a) 540
(b) 600
(c) 480
(d) 360

Answer: (c)

52. If at a certain rate of simple interest, the principal amount becomes Rs. 15,240 and Rs. 16,860 in 3 years and in 4.5 years respectively, then find the rate of interest (in percent per annum).

(a) 10 percent
(b) 12 percent
(c) 9 percent
(d) 9.6 percent

Answer: (c)

53. Initially, the distance covered by a bus in 1 hour is 40 km, but after every hour its speed is increased by 2 km/hr. Find the total distance covered by bus in 5 hours.

(a) 220 km

(b) 250 km

(c) 240 km

(d) 280 km

Answer: (a)

54. The boat can travel in still water at 7 kmph and the speed of stream is 3 kmph. Find the total time taken by the boat to travel upstream 60 km and returned to the same point where it starts? (in hours).

(a) 18

(b) 21

(c) 15

(d) 16

Answer: (b)

55. Pipes A and B alone can fill an empty tank in 10 hours and 20 hours respectively. Pipe C alone can empty the full tank in 12 hours. In how many hours pipes A, B and C together can fill the empty tank?

(a) 12 hours

(b) 13 hours

(c) 18 hours

(d) 15 hours

Answer: (d)

57. The radii of two cylinders A and B are in the ratio of 4:7 and the heights are in the ratio of 7:5 respectively. Find the ratio of curved surface area of cylinder B to that of A.

(a) 5:4

(b) 49:35

(c) 6:5

(d) 35:49

Answer: (a)

General English

61. In the following question, four sentences are given out of which three sentences are grammatically incorrect while one is correct. Find out which sentence is grammatically correct and select the appropriate option.
If there is no error present, then select No error as answer.

(a) The move came at a time when the Chinese involvement in Nepal is surging, largely on the back of Beijing's BRI project.

(b) The leaders of the SCO countries has signed a joint declaration at the summit Kyrgyzstan's capital Bishkek.

(c) "Countries sponsoring, aiding, and funding terrorism must be hold accountable", he said.

(d) SCO is the largest regional organizations in the world in terms of geographical coverage and population.

Answer: (a)

62. Identify the segment in the sentence which contains the grammatical error from the given options.
Because of the high prices first they discontinued jam on toasts and then substituted margarine for butter.

(a) Because of the high prices

(b) first they discontinued jam on toasts

(c) and then substituted margarine for butter

(d) No error

Answer: (d)

65. Select the most appropriate option to fill in the b[illegible].
Waving a fan for nearly 12 hours continuously, with[illegible]t a break for lunch, could make _____ arms sore.

(a) anyone's

(b) everyone

(c) anyone

(d) everyone's

Answer: (a)

66. Select the most appropriate option to fill in the blank.
She _____ from the position of the station chief executive officer last year, but she is still the director.

(a) adapted

(b) resigned

(c) agitated

(d) yielded

Answer: (b)

67. Rearrange the following sentences in their correct order to form a meaningful paragraph.
P. So how do you really focus on being productive without killing your creativity?
Q. More than anything, it's been difficult for creative people to keep up with their creativity.
R. This lockdown has been hard on almost all employees.
S. There are ways through which you can hit your deadlines without any negative emotional, mental and physical effects of burnout.

(a) PQRS
(b) RQPS
(c) SRQP
(d) QRSP

Answer: (b)

68. Rearrange the following sentences in their correct order to form a meaningful paragraph.
P Visibility was almost zero.
Q There were blinding flashes, followed by peals of thunder.
R Suddenly without any warning, our helicopter went into a spin and nosedived into the darkness below.
S Our anxiety rose into fear.

(a) RPSQ
(b) QPSR
(c) PQRS
(d) SPQR

Answer: (b)

69. Select the most appropriate synonym of the giv word.
INEBRIATED

(a) Stupefied
(b) Unsteady
(c) Drunken
(d) Broken

Answer: (c)

70. Select the most appropriate antonym of the given word.
EFFEMINACY

(a) Aggressiveness
(b) Manliness
(c) Boorishness
(d) Verbosity

Answer: (b)

71. Select the correctly spelt word

(a) Asymphtomatic
(b) Asymphtometic
(c) Asymptomatic
(d) Asymptomattic

Answer: (c)

72. Select the wrongly spelt word.

(a) Forward

(b) Pharaoh

(c) Fahrenheit

(d) Liaeson

Answer: (d)

73. Select the most appropriate meaning of the given idiom/ phrase.
Kick the can down the road

(a) A task or job that is easy to complete

(b) It never changes back or comes back

(c) To avoid dealing with a problem

(d) Hear news of something secret

Answer: (c)

74. Select the most appropriate meaning of the given idiom/ phrase.
To take to one's heels

(a) To run off

(b) To show one's heels

(c) To turn around

(d) To walk leisurely

Answer: (a)

75. Select the word which means the same as the g p of words given.
Study of diseases and their causes, based labo ory examinations

(a) Pantomime

(b) Parasite

(c) Parasol

(d) Pathology

Answer: (d)

76. The line “She soon leaves and, disguised as a pilgrim” refer to—

(a) Diana

(b) Countess

(c) Widow

(d) Helen

Answer: (d)

77. Why does the Countess allow Helen to go to court?

(a) to inform the king about upcoming threat

(b) to please king with cooking skillls

(c) to try her hands to cure the illness of the king

(d) to marry the king as she very beautiful

Answer: (c)

79. Which of the following best expresses the opposite meaning to the given word “Oblivious”?

(a) concerned
(b) heedless
(c) unconscious
(d) insensible

Answer: (a)

Discipline1

101. The organism that does not reproduce is-

(a) Mule
(b) Spirogyra
(c) Fungi
(d) Cockroach

Answer: (a)

102. There are different branches of science. Which of the following branches of science deals with identification , nomenclature, and classification of organisms?

(a) Ecology
(b) Environmental science
(c) Taxonomy
(d) Genetics

Answer: (c)

103. ICBN makes the rules for nomenclatur[illegible]re[illegible]BN stands for-

(a) International Code for Biological Nomen[illegible]e
(b) International Code for Botanical Nomenclature
(c) International Committee of Biological nomenclature
(d) International Committee of Botanical Nomenclature

Answer: (b)

104. _____ has formalised Binomial Nomenclature.

(a) Robert Hooke
(b) Charles Darwin
(c) Carolus Linnaeus
(d) Mendel

Answer: (c)

105. With which of the following is the book “Systema Naturae” associated with?

(a) Classification of flora
(b) Human body mechanism
(c) Natural selection
(d) Classification of plants and animals

Answer: (d)

106. Solanum tuberosum is the scientific name of _____.

(a) Potato

(b) Tomato

(c) Cabbage

(d) Brinjal

Answer: (a)

107. Families are characterised on the basis of:
1. Vegetative features of plant species 2. Reproductive feature of plant species

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (c)

108. Reproduction is a method by which one organism can produce their offspring, it can occur within members of -

(a) Family

(b) Order

(c) Genus

(d) Species

Answer: (d)

109. We can eat the roots of many plants. Which of following is an example of a plant with edible roots?

(a) Wheat

(b) Potato

(c) Mango

(d) Sweet potato

Answer: (d)

110. In which of the following plants, the primary root is short lived and is replaced by a large number of roots. These roots originate from the base of the stem and constitute the fibrous root system.

(a) Gymnosperm

(b) Monocotyledons

(c) Dicotyledons

(d) Bryophyta

Answer: (b)

111. Which plant is seen growing in swampy areas with many roots coming out of the ground and growing vertically upwards?

(a) Mirabilis
(b) Rhizophora
(c) Banyan tree
(d) Monstera

Answer: (b)

112. Who has authored the book "Anatomy of Seed Plants"?

(a) Katherine Esau
(b) Vernon Cheadle
(c) Ray F. Evert
(d) Susan E. Eichhorn

Answer: (a)

113. The region of the stem from where leaves are born is called-

(a) Nodes
(b) Internodes
(c) Bud
(d) Gemmule

Answer: (a)

114. Consider the following:
1. This part of the plant bears both the nodes and internodes 2. It is generally green when young, but changes colour later.
Which of the following parts has been described?

(a) Root
(b) Stem
(c) Flower
(d) Bud

Answer: (b)

115. Consider the following:
1. When the incisions of the lamina reach up to the midrib breaking it into a number of leaflets, the leaf is called compound.
2. Phyllotaxy is the pattern of arrangement of leaves on the stem or branch.
Which of the above is incorrect?

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

Answer: (d)

116. Which of the following is incorrectly matched?
(a) Calyx - outermost whorl of the flower
(b) Corolla - brightly coloured to attract insects
(c) Gynoecium - Composed of stamens
(d) Placentation - Arrangement of ovules within the ovary
Answer: (c)

117. Which of the following is known as the 'potato-family'?
(a) Solanaceae
(b) Fabaceae
(c) Liliaceae
(d) Brassicaceae
Answer: (a)

118. Which of the following flowers is zygomorphic?
(a) Gulmohur
(b) Mustard
(c) Datura
(d) Chilli
Answer: (a)

119. Pith is the anatomical part of plant, which is well (eloped in _____.
(a) Monocot root and monocot stem
(b) Monocot root and Dicot root
(c) Dicot root and monocot stem
(d) Monocot root and Dicot stem
Answer: (d)

120. The alternation of generation in Obelia is termed as _____.
(a) Metamerism
(b) Dimorphism
(c) Metagenesis
(d) Metamorphosis
Answer: (c)

Discipline2

121. A gravid proglottid has-
(a) Only female organs are well developed
(b) An under-developed female reproductive unit
(c) A fully developed male reproductive unit
(d) Branched uterus filled with fertilised eggs
Answer: (d)

122. Which of the following parasites show alternation of generation and alternation of host in its life cycle?
1. Fasciola
2. Taenia

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

Answer: (a)

123. Which of the following shows the characteristics of torsion?

(a) Gastropoda
(b) Monaplacophora
(c) Cephalopoda
(d) Aplacophora

Answer: (a)

124. What term is used for nephridia which discharge their excretory products into the lumen of gut?

(a) Exocrine
(b) Holocrine
(c) Enteronephric
(d) Exonephric

Answer: (c)

125. Consider the following animals -1. Car[illegible]ino[illegible]shes 2. Frogs
3. Crocodiles
Which of the above animals' heart auricle consist of single chamber?

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

Answer: (a)

126. The jawless vertebrates are known as-

(a) Agnatha
(b) Dipnoi
(c) Osteichthyes
(d) Chondrichthynes

Answer: (a)

127. Which of the following can create electric-fields?

(a) Dolphins
(b) Turtles
(c) Torpedoes
(d) Porpoises

Answer: (c)

128. The breathing of blue whales occurs through-

(a) Skin
(b) Nose
(c) Blowhole
(d) Gill

Answer: (c)

129. How many occipital condyle (s) should be there in the skull of a snake?

(a) One
(b) Two
(c) Nil
(d) Three

Answer: (a)

130. Consider the following statements -
1. This type of Immunoglobulin is a type of antibody representing approximately 75% of serum antibodies in humans.
2. It is present in most abundant quantity in the blood circulation
Which type of immunoglobulin is being talked about?

(a) IgG
(b) IgD
(c) IgM
(d) IgE

Answer: (a)

131. Human haemoglobin is a quaternary protein, the structure of which is described as-

(a) Dimer of two myoglobin dimers
(b) Tetramer of identical peptide subunits
(c) Tetramer of four different subunits
(d) Tetramer of two different subunits

Answer: (d)

132. With the help of _____ diagram, production of gametes by the parents, the formation of the zygotes, the F1 and F2 plants can be understood.

(a) Punnett Square

(b) Heterozygous

(c) Test Cross

(d) Monohybrid Cross

Answer: (a)

133. The factors or gene on chromosome regulating the physical expression of the characters is called _____.

(a) Genotype

(b) Phenotype

(c) Allele

(d) Co- dominance

Answer: (c)

134. Which of the following works helped to establish the relationship of a gene to control synthesis of one enzyme?

(a) The work of George Beadle and Edward Tatum during 1930s on the mould Neurospora crassa

(b) The work of Bateson and Edward Tatum during 1930s on the mould Neurospora crassa

(c) The work of Morgan and Edward Tatum during 1930s on the mould Neurospora crassa

(d) The work of Johansen and Edward Tatum duri 1930s on the mould Neurospora crassa

Answer: (a)

135. Which of the following is the phenome whe different genes interact with each other in a way that influences the phenotype?

(a) Pleiotropy

(b) Incomplete dominance

(c) Codominance

(d) Epistasis

Answer: (d)

136. Which of the following removes the RNA primers from the lagging strand?

(a) 3′→5′ exonuclease

(b) DNA ligase

(c) DNA polymerase I

(d) DNA polymerase III

Answer: (c)

137. Action of topoisomerase leads to change in _____.

(a) Linking number of linear single stranded DNA

(b) Linking number of double stranded linear DNA

(c) Linking number of closed circular single stranded DNA

(d) Linking number of closed circular double stranded DNA

Answer: (d)

138. Synthesis of mRNA on DNA template is:

(a) Unidirectional
(b) Bidirectional
(c) Bi-directional with the help of Primer
(d) Uni-directional with the help of primer

Answer: (a)

139. _____ is the process where the microspores are formed from a pollen mother cell (PMC).

(a) Microspore tetrad
(b) Pollen grains
(c) Microsporogenesis
(d) Exine

Answer: (c)

140. Lactose is the substrate for which of the following enzyme ?

(a) Beta-galactosidase
(b) Glucosidases
(c) Beta-glucuronidase
(d) Galactose

Answer: (a)

Discipline3

141. Gene is the unit of inheritance that controls a s ific trait or character and may also be expressed in alternative forms known as _

(a) Central Dogma
(b) Alleles
(c) Phenotypes
(d) Codominance

Answer: (b)

142. The total DNA content in one complete set of chromosomes (including all the genes and other parts of DNA) is called a _____.

(a) Genome
(b) Cytoplasm
(c) Eukaryotic Genome
(d) Prokaryote Genome

Answer: (a)

143. Mendel proposed two general rules to consolidate his understanding of inheritance in monohybrid crosses. The law consists of which of the following?
I. Law of Dominance
II. Law of Segregation
III. Law of Hereditary

(a) Only I
(b) Both I and II
(c) Both II and III
(d) I, II and III

Answer: (b)

144. Which part of pollen grains contain sporo–pollenin?

(a) Exine
(b) Pollen cytoplasm
(c) Tapetum
(d) Intine

Answer: (a)

145. Which of the following describes the process of Apomixis?

(a) Production of seeds after fertilisation
(b) Production of seeds without fertilisation
(c) Production of seeds as result of sexual reprod on
(d) No production of seeds even after sexual rep uction

Answer: (b)

146. Sutton united the knowledge of chromos egregation with Mendelian principles and called it the _____.

(a) Chromosomal theory of inheritance
(b) Chromosomal theory of Segregation
(c) Chromosomal theory of Hereditary
(d) Chromosomal theory of Behaviour

Answer: (a)

147. Polyembryony Means:
I. Occurrence of Single Embryo in the seed II. No occurrence of embryo in the seed III. Occurrence of more than one embryo in the seed

(a) Only I
(b) Only II
(c) Only III
(d) I and III only

Answer: (c)

148. The process of formation of megaspores from the megaspore mother cell is called-

(a) Megasporogenesis
(b) Megasporangium
(c) Megasporonium
(d) Megasporexis

Answer: (a)

149. Pollen grains are generally spherical measuring about _____ in diameter.

(a) 25-50 Micrometers
(b) 50-75 Micrometers
(c) 75-100 Micrometers
(d) More than 100 Micrometers

Answer: (a)

150. The Generative Cell of the pollen grain divides to form -

(a) Two Male Gametes
(b) Three Male Gametes
(c) Four Male Gametes
(d) Five Male Gametes

Answer: (a)

151. Cells of the tapetum possess dense cytoplasm ar generally have _____.

(a) More than Four Nucleus
(b) More than Three Nucleus
(c) More than Two Nucleus
(d) More than One Nucleus

Answer: (d)

152. Without associating transiently with initiation-factor (σ) and termination-factor (ρ), the RNA polymerase is only capable of catalysing which of the following process?
1. Initiation
2. Elongation
3. Termination

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

Answer: (c)

153. Human chorionic gonadotropin:

(a) Begins to be produced four months after fertilization
(b) Is produced by the prostate gland
(c) Is produced by Corpus luteum
(d) Is present only if a successful fertilization has occurred

Answer: (d)

154. The testosterone producing cells of the testes are called-

(a) Sertoli cells
(b) Granulosa cells
(c) Spermatogonia
(d) Leydig cells

Answer: (d)

155. An antrum is characteristic of _____ follicle.

(a) Primary
(b) Secondary
(c) Bone marrow
(d) Graafian

Answer: (d)

156. _____ is the release of secondary oocyte from the ovary.

(a) Oogenesis
(b) Spermatogenesis
(c) Fertilization
(d) Ovulation

Answer: (d)

157. Oxytocin is secreted by the _____.

(a) Adenohypophysis
(b) Neurohypophysis
(c) Zona glomerulosa
(d) Pars intermedia

Answer: (b)

158. Nerve impulses are carried from the eye to the brain by the-

(a) Optic nerve
(b) Cornea
(c) Bipolar cell
(d) Rod and cone cell

Answer: (a)

159. Cells found in the choroid plexus that secrete cerebrospinal fluid are-

(a) Astrocytes
(b) Microglia
(c) Ependymal cells
(d) Oligodendrocytes

Answer: (c)

160. A neuron with many short dendrites and a single long axon is a-

(a) Multipolar neuron
(b) Bipolar neuron
(c) Unipolar neuron
(d) Varies from region to region

Answer: (a)

Discipline4

161. Which hormone from the hypothalamus stimulates the release of FSH from the anterior pituitary?

(a) GnRH
(b) Oxytocin
(c) luteinizing hormone
(d) Progesterone

Answer: (a)

162. The process that sperm undergoes in female genital tract of mammals before fertilization is called-

(a) Decapacitation
(b) Capacitation
(c) Activation
(d) Deactivation

Answer: (b)

163. The process in which the three germ laye[illegible]n is called-

(a) Fertilization
(b) Cleavage
(c) Gastrulation
(d) Organogenesis

Answer: (c)

164. Coelom is formed from-

(a) Ectoderm
(b) Endoderm
(c) Mesoderm
(d) Cnidoblast

Answer: (c)

165. Syphilis is caused by which of the following bacterium?

(a) Treponema pallidum
(b) Leptospira interrogans
(c) Spirochaetales
(d) Spirochaetes

Answer: (a)

166. Which of the following phrase is used for Eichhornia Crassipes?

(a) Terror of Bengal
(b) Terror of South
(c) Terror of Bombay
(d) Terror of North

Answer: (a)

167. Which of the following diseases was caused due to the fish contamination with mercury?

(a) Minamata Disease
(b) Itai-Itai Disease
(c) Yokkaichi asthma
(d) Argyria

Answer: (a)

168. Which of the following parts of the human body is effected the most due to the fluoride pollution?

(a) Liver
(b) Eyes
(c) Pancreas
(d) Teeth

Answer: (d)

169. Which of the following best describes the Alpha ersity?
1. The diversity of organisms sharing the same habi or community 2. The diversity of organisms which do not share the same habitat or cor nity 3. The diversity of organisms which has no preference for sharing the same habitat or co y

(a) Only 1
(b) Only 2
(c) Only 3
(d) Neither 1, nor 2, nor 3

Answer: (a)

170. Which of the following methods of conservation of biodiversity is used only for threatened animals and plants?

(a) In Situ conservation
(b) Ex Situ conservation
(c) National parks
(d) Biosphere Reserves

Answer: (b)

171. Nilgiri was the first biosphere reserve of India. It was established in which year?

(a) 1986

(b) 1999

(c) 1988

(d) 1998

Answer: (a)

172. Which of the following best represents the approximate temperature of Cryopreservation?

(a) –130 o C

(b) –196 o C

(c) 0 o C

(d) –140 o C

Answer: (b)

173. Which of the following term is used to categorise the species which is at the highest risk of extinction in near future?

(a) Vulnerable

(b) Rare

(c) Critically endangered

(d) Link species

Answer: (c)

174. Which of the following can be a reason for biodi sity losses?
1. Alien species invasion
2. Co-extinctions

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (c)

175. Consider the following gases -
a. Carbon dioxide
b. Methane
c. CFCs
d. Nitrous Oxide
Arrange these gases according to the decending order of their relative contribution to total global warming.

(a) adcb

(b) dcba

(c) abcd

(d) acbd

Answer: (c)

176. The term living fossil refers to a-

(a) Life like fossil well preserved in amber
(b) Fossil formed from a living animal
(c) Living animal which is about to be fossilized
(d) Living organisms showing some very primitive characters

Answer: (d)

177. Which one among the following is the most important factor in speciation?

(a) Geographical isolation
(b) Reproductive isolation
(c) Ethological isolation
(d) Ecological isolation

Answer: (b)

178. Fertilization of human egg most often takes place in the _____.

(a) Ovary
(b) Uterus
(c) Ampulla
(d) Cervix

Answer: (c)

179. _____ is produced mainly by the Corpus luteum ne ovary following ovulation.

(a) Progesterone
(b) FSH
(c) LH
(d) hCG

Answer: (a)

180. From which of the following structures is the secondary oocyte ovulated?

(a) Corpus luteum
(b) Graafian follicle
(c) Primary follicle
(d) Germinal epithelium

Answer: (b)

Discipline5

181. Secretion of adrenaline hormone causes nervousness and irritability as an effect of which of the following?

(a) Air Pollution
(b) Water Pollution
(c) Land Pollution
(d) Noise Pollution

Answer: (d)

182. An endemic species is _____.

(a) One found in many different geographic areas

(b) One found naturally in just one geographic area

(c) One found only on island

(d) One that has been introduced to a new geographic area

Answer: (b)

183. What is the principal health concern of Ozone depletion in the Stratosphere?

(a) Cancer and other damage to the skin

(b) Ilankovitch cycle

(c) Temperature inversions

(d) Hadley cell

Answer: (a)

184. When was the concept of Joint Forest Movement (JFM) launched in India?

(a) 1980s

(b) 1990s

(c) 1960s

(d) 1970s

Answer: (a)

185. Allergy and anaphylaxis are due to-

(a) IgE

(b) IgA

(c) IgG

(d) IgM

Answer: (a)

186. Cells that release histamine and other vasoactive substances in response to allergens are-

(a) Neutrophils

(b) Macrophages

(c) NK cell

(d) Mast cells

Answer: (d)

187. Which of the following secondary metabolite is a toxin?

(a) Morphine

(b) Ricin

(c) Curcumin

(d) Cartenoids

Answer: (b)

188. In which temperature range enzymes are most functional?

(a) 10 o - 80 o C

(b) –15 o - –25 o C

(c) 35 o - 40 o C

(d) 50 o - 60 o C

Answer: (c)

189. In 1838 _____ and _____ formulated the “cell theory.”

(a) M.J. Schleiden, Theodore Schwann

(b) Theodore Schwann, Robert Hooke

(c) Robert Hooke, Anton Van Leeuwenhoek

(d) Anton Van Leeuwenhoek, M.J. Schleiden

Answer: (a)

190. Asterias and Ophiura are examples of _____.

(a) Phylum - Arthropoda

(b) Phylum - Chordata

(c) Phylum - Echinodermata

(d) Phylum - Hemichordata

Answer: (c)

191. Ecological Pyramids can determine _____.

(a) The energy and biomass relationship betwee e organisms at different tropic levels

(b) The level at which different organisms stanc the food chain

(c) The energy which the different orga v in the different atmosphere

(d) The life cycle of an organism

Answer: (a)

192. Which of the following statements is incorrect regarding Bt Cotton?
I. Bt stands for Bacillus thuringiensis
II. The strains contain crystals which contain a toxic insecticidal protein

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

Answer: (d)

193. Who was the founder of the ‘Madras school’ of conformational analysis of biopolymers?

(a) H. G. Khorana

(b) Anna Mani

(c) S. S. Bhatnagar

(d) G. N. Ramachandran

Answer: (d)

194. In a choromosome there is a specific DNA sequence which is responsible for initiating replicaton. What is it called?

(a) Plasmid
(b) Origin of replication
(c) Promotor
(d) Operator

Answer: (b)

195. Consider the options and determine which of the following is not component of yeast artificial chromosome?

(a) Centromere
(b) Telomere
(c) Origin of replication
(d) COS site

Answer: (d)

196. Who discovered Restriction endonuclease enzymes?

(a) Smith and Nathans
(b) Baiger
(c) Waxman
(d) Fleming

Answer: (a)

197. Which cells are most affected by AIDS?

(a) B-cells
(b) T-cells
(c) Monocytes
(d) Neutrophils

Answer: (b)

199. Which part connects foetus to placenta?

(a) Umbilical cord
(b) Amnion
(c) Chorion
(d) Yolk sac

Answer: (a)

200. Which of the following are organisms that completely lack a cell wall and are the smallest living cells known and can survive without oxygen?

(a) Eubacteria
(b) Cyanobacteria
(c) Heterocysts
(d) Mycoplasma

Answer: (d)

Discipline6

201. A protozoan reproduces by binary fission. What will be the number of protozoans in its population after eight generations?

(a) 128
(b) 32
(c) 64
(d) 256

Answer: (d)

202. In a society, pattern of age of population is directly responsible for the kind of population growth, because-

(a) Younger females have more offspring than do older females
(b) Different age group have different reproductive capabilities
(c) The more the people are educated, the less do they want to reproduce
(d) The habits of the newer society leads to less reproductive ability

Answer: (b)

203. Western ghats are known as _____.

(a) Hot-spot of biodiversity in India
(b) Hot-spot of reserved sanctuary in India
(c) Best wildlife protection India
(d) Best reserved national park in India

Answer: (a)

204. Jim Corbett was developed as

(a) First National Park of India
(b) First Wildlife Sanctuary of India
(c) First Protected Bird Reserve
(d) First Protected Forest for Endangered Species

Answer: (a)

205. Rare and Endangered Species are given under which of the following?

(a) Black Data Book
(b) Red Data Book
(c) Blue Data Book
(d) Green Data Book

Answer: (b)

206. Which of the following describes the littoral zone?
1. The zone at the edge of a lake or ocean which is alternatively exposed to air and immersed in water 2. The zone at the middle of a lake or ocean which is alternatively exposed to air and immersed in water 3. The zone at the both the ends of a lake which is alternatively exposed to air and immersed in water

(a) Only 1

(b) Only 2

(c) Only 3

(d) Neither 1 nor 2 nor 3

Answer: (a)

207. Which one of the following will represent low stability and high resilience?

(a) An ecosystem which can be easily damaged but can recover after some time if damaging effect stops

(b) An ecosystem which cannot be easily damaged but can recover whatever damaged is caused after some time if damaging effect stops

(c) An ecosystem which can be easily damaged and cannot recover even after damaging effect stops

(d) An ecosystem which cannot be damaged at all

Answer: (a)

208. Which of the following organs is affected in jaundice?

(a) Liver

(b) Heart

(c) Kidney

(d) Lungs

Answer: (a)

209. The individual mono saccharides are linked by a _____ to form a polysaccharide.

(a) Glycosidic bond

(b) Peptide bond

(c) Ester bond

(d) Phosphodiester bond

Answer: (a)

210. How many chambers are present in Crocodile's heart?

(a) 2

(b) 3

(c) 4

(d) 5

Answer: (c)

212. Which of the following is the excretory organ of cockroach?

(a) Nephridia
(b) Malpighian tubules
(c) Kidney
(d) Flame cell

Answer: (b)

213. Henle's loop is present in the _____ of human.

(a) Lungs
(b) Kidney
(c) Nephridia
(d) Blood

Answer: (b)

214. Nephron is the structural and functional unit of _____.

(a) Lungs
(b) Kidney
(c) Pancreas
(d) Brain

Answer: (b)

215. Which process is used to remove urea from the blood?

(a) Excretion
(b) Digestion
(c) Hemodialysis
(d) Sweating

Answer: (c)

216. Frontal part of skull is made up of _____ bones.

(a) 14
(b) 23
(c) 24
(d) 32

Answer: (a)

217. The joint between humerus and pectoral girdle is _____.

(a) Hinge joint
(b) Ball and socket joint
(c) Pivot joint
(d) Saddle joint

Answer: (b)

218. A group of vertebrates are without any amnion; they are called anamniota. Which of the following belongs to this group?

(a) Fish
(b) Reptiles
(c) Fishes and amphibians
(d) Amphibians and Reptiles

Answer: (c)

220. Which is the first visceral arch?

(a) Hyoid arch
(b) Mandibular arch
(c) Branchial arch
(d) Aortic arch

Answer: (b)

Discipline7

221. Which type of jaw attachment is found in mammals?

(a) Hyostylic condition
(b) Autostylic condition
(c) Holostylic condition
(d) Craniostylic condition

Answer: (d)

222. The lateral ventricles remain in comm atic with the third ventricle by a small opening called _____.

(a) Foramen of Monro
(b) Foramen of panizza
(c) Fossa ovalis
(d) Basal ganglia

Answer: (a)

223. The thyroid glands produces a hormone called _____.

(a) TSH
(b) ADH
(c) T4
(d) FSH

Answer: (c)

224. Which type of kidney is found in Frog?

(a) Pronephric type
(b) Mesonephric type
(c) Metanephric type
(d) Primitive type

Answer: (b)

225. In case of Ambystoma, the phenomenon of attainment of sexual maturity in larval phase is called _____.

(a) Juvenile phase
(b) Reproductive phase
(c) Neoteny
(d) Maturity

Answer: (c)

227. Which of the following is considered a living fossil?

(a) Tuatara
(b) Turtle
(c) Rhinocerous
(d) Tiger

Answer: (a)

228. _____ is known as golden era of reptile.

(a) Phanerozoic era
(b) Cenozoic era
(c) Mesozoic era
(d) Paleozoic era

Answer: (c)

229. The covering of brain is known as _____.

(a) Suture
(b) Pleura
(c) Meninges
(d) CSF

Answer: (c)

230. Outer subdermal fat layer of aquatic mammal is known as:

(a) Skin
(b) Fat bodies
(c) Blubber
(d) Epidermis

Answer: (c)

231. Which is not a part of lymphatic system?

(a) Tonsil
(b) Adenoids
(c) Spleen
(d) Stomach

Answer: (d)

232. All single celled eukaryotes are placed under _____.

(a) Monera
(b) Protista
(c) Animalia
(d) Bacteria

Answer: (b)

233. Which of the following is responsible for causing “Red Tides”?

(a) Gonyaulax
(b) Euglena
(c) Slime moulds
(d) Chrysophytes

Answer: (a)

234. If S = Species richness, A = Area, Z = slope of the line (regression coefficient), C = Y-intercept, then on a logarithmic scale, the species-area relationship is a straight line described by the equation –

(a) log S = log C / Z log A
(b) log S = log C - Z log A
(c) log C = log S - Z log A
(d) log S = log C + Z log A

Answer: (d)

235. Bipolar neurons are found in _____.

(a) Retina of eye
(b) Cerebral cortex
(c) Embryonic stage
(d) Heart

Answer: (a)

237. Which Fungi is commonly known as Imperfect Fungi?

(a) Phycomycetes
(b) Ascomycetes
(c) Basidiomycetes
(d) Deuteromycetes

Answer: (d)

238. Which type of Chlorophyll is present in Rhodophyceae ?

(a) Chlorophyll a,b
(b) Chlorophyll a,c
(c) Chlorophyll a,d
(d) Chlorophyll c,d

Answer: (c)

239. Coelom originates from which germinal layer?

(a) Ectoderm
(b) Endoderm
(c) Mesoderm
(d) Vacuoles

Answer: (c)

240. Which organism doesn't have Coelom?

(a) Nereis
(b) Pheretima
(c) Hirudinaria
(d) Platyhelminthes

Answer: (d)

Discipline8

241. Which organ is known as graveyard of RBC?

(a) Blood
(b) Spleen
(c) Tonsil
(d) Stomach

Answer: (b)

242. Blood is a fluid _____ tissue.

(a) Muscle
(b) Connective
(c) Epithelial
(d) Nervous

Answer: (b)

243. Human heart consists of which tissue?

(a) Epithelial
(b) Connective, Epithelial
(c) Muscular, Connective
(d) Neural, muscular, Connective, Epithelial

Answer: (d)

244. _____ is the first body segment of earthworm.

(a) Peritoneum
(b) Prostomium
(c) Peristomium
(d) Epithelium

Answer: (c)

245. Earthworm bears a dark band of glandular tissue called Clitellum, it is present in _____.

(a) 12-13 segment
(b) 13-14 segment
(c) 14-16 segment
(d) 13- 15 segment

Answer: (c)

246. The respiratory organ/organs of adult Frog is/are _____.

(a) Gill
(b) Trachea
(c) Book gill
(d) Lungs and skin

Answer: (d)

247. Which of the following cells function as nurse cells for the sperm?

(a) Leydig cell
(b) Scrotum
(c) Sertoli cell
(d) Acrosome

Answer: (c)

248. Testosterone is a _____. hormone.

(a) Steroid hormone
(b) Peptide hormone
(c) Thyroid hormone
(d) Pregnancy hormone

Answer: (a)

249. _____ is known as birth hormone.

(a) Prolactin
(b) Oxytocin
(c) FSH
(d) LH

Answer: (b)

250. Which type of placenta is found in cats and dogs?

(a) Diffuse placenta
(b) Zonary placenta
(c) Discoidal placenta
(d) Meta Discoidal placenta

Answer: (b)

251. Which hormone is used in pregnancy test?

(a) FSH
(b) HCG
(c) PRL
(d) ADH

Answer: (b)

252. Which is the most common and abundant biological product on earth?

(a) Cellulose
(b) Pepsin
(c) Amino acid
(d) Glycerol

Answer: (a)

253. Exoskeleton of arthropods is made up of_____.

(a) Protein
(b) Chitin
(c) Muscle
(d) Skeleton

Answer: (b)

254. Which plant pigment is present in tomatoes?

(a) Carotene
(b) Xanthophylls
(c) Lycopene
(d) Phycobilins

Answer: (c)

255. The _____ are the compound lipids and they form the pigments of the animal and plant cells.

(a) Carotenoids
(b) Chlorophyll
(c) Xanthophylls
(d) Anthocyanine

Answer: (a)

256. The tail part of Chlorophyll molecule is made up of _____.

(a) Phytol
(b) Porphyria
(c) 10 carbon bond
(d) Hydrogen

Answer: (a)

257. Chemical name of Vitamin E is _____.

(a) Calciferol
(b) Tocopherol
(c) Riboflavin
(d) Thiamine

Answer: (b)

258. Which of the following is known as traffic police of the cell?

(a) Golgi body
(b) Lysosome
(c) Endoplasmic Reticulum
(d) Nucleus

Answer: (a)

259. Which of the following characters is a dominant character?

(a) Rolling tongue
(b) Fingers with no hair
(c) Attached ear lobes
(d) Folding tongue

Answer: (a)

260. Which of the following is the phenotypic ratio of omplete dominance?

(a) 1:2:1
(b) 1/5:1/8:1/5
(c) 8:2:2:1
(d) 4:2:1

Answer: (a)

Discipline9

261. A genetic disease due to the XXY karyotype is called-

(a) Equus caballlus
(b) Klinefelter's syndrome
(c) Cry du chat syndrome
(d) Marasmus

Answer: (b)

262. The position or place on a chromosome occupied by particular gene or one of its alleles is

(a) Location
(b) Position
(c) Locus
(d) Centromere

Answer: (c)

263. Which of the following is not a x linked disorder?

(a) Hemophilia
(b) Colour blindness
(c) Thalassemia
(d) Fragile X syndrome

Answer: (c)

264. Which antibody can pass from mother to foetus via the placenta?

(a) IgG
(b) IgA
(c) IgM
(d) IgD

Answer: (a)

265. Who is the founder or father of modern Palaeontology?

(a) Cuvier
(b) Leonardo da Vinci
(c) Watson
(d) John Playfair

Answer: (a)

266. Which represents the modern horse?

(a) Equus
(b) Eohippus
(c) Pliohippus
(d) Merychippus

Answer: (a)

267. Archaeopteryx was the connecting link between -

(a) Reptile and Bird
(b) Fish and Amphibia
(c) Amphibia and Reptile
(d) Reptile and Mammal

Answer: (a)

268. Which one is the vestigial organ of the human?

(a) Stomach
(b) Eye
(c) Skin
(d) Coccyx

Answer: (d)

269. Which of the following scientists has proposed the Mutation Theory?

(a) De Vries
(b) Lamark
(c) Darwin
(d) Mendel

Answer: (a)

270. Which pollutant is released from the refrigerator industry?

(a) CO 2
(b) CFC
(c) NO 2
(d) Fe

Answer: (b)

271. Frequency is denoted as _____.

(a) Hertz
(b) Decibel
(c) Nanometer
(d) Sone

Answer: (a)

272. The Ganga Action Plan was launched in _____.

(a) 1984
(b) 1985
(c) 1986
(d) 1987

Answer: (c)

273. Myotome muscle is present in _____.

(a) Fish
(b) Amphibia
(c) Reptilia
(d) Bird

Answer: (a)

274. Number of rectrices present in a pigeon is:

(a) 12
(b) 12 pair
(c) 24
(d) 24 pair

Answer: (a)

275. Mycobiont part of Lichen is _____.

(a) Algae

(b) Fungi

(c) Bacteria

(d) Rhizobium

Answer: (b)

276. The Nutrient enrichment of water causes the natural aging of the lake. This is called?

(a) Eutrophication

(b) Biomagnification

(c) Algae Bloom

(d) Accelerated Eutrophication

Answer: (a)

277. Sexual reproduction takes place through fusion of two gametes. These gametes can be flagellated and similar in size (as in Ulothrix) or non- flagellated (non-motile) but similar in size (as in Spirogyra). Such reproduction is called -

(a) Oogamous

(b) Isogamous

(c) Anisogamous

(d) Gametophyte

Answer: (b)

278. Zygotes do not undergo reduction division imr iately. They produce a multicellular body called a -

(a) Sporophyte

(b) Gametophyte

(c) Antheridium

(d) Archegonium

Answer: (a)

279. Which of the following is the phenomenon, where the living differentiated cells, that by now have lost the capacity to divide can regain the capacity of division under certain conditions?

(a) Dedifferentiation

(b) Differentiation

(c) Redifferentiated

(d) Divisioniated

Answer: (a)

280. Which of the following helps in the swimming of spermatozoa, maintenance of water current in the canal system of sponges and in locomotion of Protozoans like Euglena?

(a) Skeletal muscles
(b) Striated muscles
(c) Visceral muscles
(d) Flagellar movement

Answer: (d)

Teaching Methodology

281. The primary stage extends from Class I to Class –

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

Answer: (b)

282. Computer Literacy and Studies in Schools (CLASS) project was introduced in the –

(a) early 60s
(b) early 70s
(c) early 80s
(d) early 90s

Answer: (c)

283. In which year was EDUSAT launched?

(a) 2002
(b) 2003
(c) 2004
(d) 2005

Answer: (c)

284. Which of the following statements is incorrect?
1. Studies have shown that girls in the same class get science education different from boys 2. Science textbooks and science teachers, like others, are not free from gender bias.

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

Answer: (d)

285. Which of the following is not a function of a teacher related to class and classroom teaching?

(a) Maintaining records of pupils' attendance

(b) Planning for curricular and co-curricular activities

(c) Evaluating the achievement of pupils

(d) Always scold the students to maintain strict discipline

Answer: (d)

286. In which method is the whole class divided into different homogeneous small sections on the basis of abilities so that teacher can remove their difficulties by giving them individual guidance?
1. Demonstration method
2. Tutorial method

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (b)

287. Who is known as the exponent of the Question-answer method of teaching?

(a) Galileo

(b) Socrates

(c) Newton

(d) Dewey

Answer: (b)

288. In a class, all the students are given a problem and all the students work on the problem individually in order to solve it. They bring their solutions in written form. They present their views in the class one by one and the other students listen to these attentively to criticize them later on. Which of the following methods of teaching has been described?

(a) Drill method

(b) Seminar

(c) Brain Storming

(d) This is not a teaching method

Answer: (b)

289. A biology-teacher can give which of the following types of home-works?
1. Informational
2. Problematic

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (c)

290. Kilpatric is the investigator of which teaching-strategy?

(a) Project method

(b) Discovery method

(c) Heuristic method

(d) Role playing method

Answer: (a)

291. A biology-teacher wants to give home-work to her students. Which of the following thoughts should she not entertain while giving the home- work?

(a) Home-work should be such that it increases the rate of learning further

(b) Home work should be somewhat challenging to the students also

(c) Home work should be time-consuming, so that the students don't get any free-time at home

(d) Home works given to students should be based on their class work

Answer: (c)

292. Which of the following methods establishes a student's mastery level?

(a) Gloom's mastery learning strategy

(b) Albert's mastery learning strategy

(c) Bloom's mastery learning strategy

(d) Garrett's mastery learning strategy

Answer: (c)

293. In which stage, science should be introduced a eparate disciplines with emphasis on experiments/technology and problem solving?

(a) Higher secondary stage

(b) Secondary stage

(c) Upper primary stage

(d) Primary stage

Answer: (a)

294. What should be done to remove gender-disparity in science education?
1. The curriculum should strive to make the contribution of women to the field of science and technology 'visible'.
2. Studies should be undertaken to understand how gender bias operates in schools both within and outside the classrooms

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (c)

295. Which of the following should not be a personality trait of a teacher?

(a) A teacher has to be very active in and outside the class in the school which requires sound physical health

(b) A teacher should not be hasty in his habits

(c) A teacher should be amiable and friendly in his behaviour

(d) A teacher should not take risk of experimenting with his teaching strategy

Answer: (d)

296. Many Indian students perform very well in formal / scholastic tests, but relatively few make it to the grade of truly outstanding researchers or original thinkers. What can be the reason for this?

(a) Science education in India at its best develops competence, but does not encourage inventiveness and creativity

(b) Science education in India at its best develops creativity, but does not encourage competence and inventiveness

(c) Science education in India at its best develops inventiveness, but does not encourage inventiveness and competence

(d) Science education in India does not develop competence or inventiveness or creativity

Answer: (a)

297. Who is considered as the Father of Microbiology?

(a) Antonie van Leeuwenhoek

(b) Robert Hooke

(c) Robert Brown

(d) Theodor Schwann

Answer: (a)

298. Using non-formal channels in our education system and specially in science will increase –

(a) Indiscipline

(b) Creative learning

(c) Concentration among students

(d) Unattentiveness among students

Answer: (b)

299. Which of the following statements is incorrect?

(a) Training is only a specialized part of teaching

(b) An idealist society gives importance to teaching while a pragmatic society gives importance to training

(c) Skill is developed through teaching while knowledge is imparted through training

(d) The word training refers to moulding of habits

Answer: (c)

300. Education can be:
1. Formal
2. Informal

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

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.

Mental Ability

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

General Awareness

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

Arithmetic Ability

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

General English

61	**(a)**	62	**(d)**	65	**(a)**	66	**(b)**	67	**(b)**	68	**(b)**
69	**(c)**	70	**(b)**	71	**(c)**	72	**(d)**	73	**(c)**	74	**(a)**
75	**(d)**	76	**(d)**	77	**(c)**	79	**(a)**				

Discipline1

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

Discipline2

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

Discipline3

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

Discipline4

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

Discipline5

181	**(d)**	182	**(b)**	183	**(a)**	184	**(a)**	185	**(a)**	186	**(d)**
187	**(b)**	188	**(c)**	189	**(a)**	190	**(c)**	191	**(a)**	192	**(d)**
193	**(d)**	194	**(b)**	195	**(d)**	196	**(a)**	197	**(b)**	199	**(a)**
200	**(d)**										

Discipline6

201	**(d)**	202	**(b)**	203	**(a)**	204	**(a)**	205	**(b)**	206	**(a)**
207	**(a)**	208	**(a)**	209	**(a)**	210	**(c)**	212	**(b)**	213	**(b)**
214	**(b)**	215	**(c)**	216	**(a)**	217	**(b)**	218	**(c)**	220	**(b)**

Discipline7

221	**(d)**	222	**(a)**	223	**(c)**	224	**(b)**	225	**(c)**	227	**(a)**
228	**(c)**	229	**(c)**	230	**(c)**	231	**(d)**	232	**(b)**	233	**(a)**
234	**(d)**	235	**(a)**	237	**(d)**	238	**(c)**	239	**(c)**	240	**(d)**

Discipline8

241	**(b)**	242	**(b)**	243	**(d)**	244	**(c)**	245	**(c)**	246	**(d)**
247	**(c)**	248	**(a)**	249	**(b)**	250	**(b)**	251	**(b)**	252	**(a)**
253	**(b)**	254	**(c)**	255	**(a)**	256	**(a)**	257	**(b)**	258	**(a)**
259	**(a)**	260	**(a)**								

Discipline9

261	**(b)**	262	**(c)**	263	**(c)**	264	**(a)**		**(a)**	266	**(a)**
267	**(a)**	268	**(d)**	269	**(a)**	270	**(b)**	271	**(a)**	272	**(c)**
3	**(a)**	274	**(a)**	275	**(b)**	276	**(a)**	277	**(b)**	278	**(a)**
279	**(a)**	280	**(c)**								

Teaching Methodology

281	**(b)**	282	**(c)**	283	**(c)**	284	**(d)**	285	**(d)**	286	**(b)**
287	**(b)**	288	**(b)**	289	**(c)**	290	**(a)**	291	**(c)**	292	**(c)**
293	**(a)**	294	**(c)**	295	**(d)**	296	**(a)**	297	**(a)**	298	**(b)**
299	**(c)**	300	**(c)**								