PREVIOUS YEAR PAPER

DSSSB Technical Assistant (Civil) 2021 — 23 October 2021, Shift 2

DSSSB Other Posts · 23 October 2021 · Shift 2

139 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: 61 (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 23 October 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-other-posts/previous-year-papers/dsssb-other-posts-2021-technical-assistant-civil-23-oct-shift-2/

General Ability

2. The two expressions on either side of the sign (=) will have the same value if two terms on either side or on the same side are interchanged. Find the correct terms to be interchanged.
5 – 3 ÷ 2 + 4 x 6 = 8 x 9 + 10 ÷ 2 - 7

(a) 3 and 7

(b) 5 and 8

(c) 3 and 8

(d) 4 and 7

Answer: (c)

3. If signs '÷' and 'x' and digits 8 and 3 interchange between each other, then what will be the value of the given expression?
81 ÷ 5 – 63 + 12 x 4 = ?

(a) 345

(b) 118

(c) 90

(d) 65

Answer: (c)

4. If 'A' means (×), 'B' means (+), 'C' means (–), and 'D' means (÷), then what will be the value of the following expression?
(24 D 8) B (3 A 4)

(a) 10

(b) 15

(c) 20

(d) 25

Answer: (b)

5. Select the correct combination of mathematical signs that when sequentially placed in the blanks will balance the following equation.
12 ___ 4 ___ 2 ___ 4 ___ 8 ___ 2

(a) ÷; ×; +; =; +

(b) ÷; ×; =; +; +

(c) +; =; ÷; ×; +

(d) ÷; ×; –; =; ×

Answer: (a)

6. Which two signs need to be interchanged to make the following equation correct?
64 – 17 × 45 ÷ 9 + 8 = 87

(a) – and ÷

(b) + and ÷

(c) + and ×

(d) – and ×

Answer: (c)

7. A train covers 250 kilometer in 5 hours. What would its average speed have been?

(a) 80 kilometer

(b) 50 kilometer

(c) 85 kilometer

(d) 78 kilometer

Answer: (b)

8. Three of the following are alike in a certain way and one is different. Find the odd one out.

(a) Tea

(b) Coffee

(c) Soup

(d) Ice cream

Answer: (d)

9. Select the option that is related to the third word in the same way as the second word is related to the first word.
Dhokla : Gujarat :: Appam : ?

(a) Rajasthan

(b) Maharashtra

(c) Kerala

(d) Assam

Answer: (c)

12. A statement is given, followed by two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusion and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.
Statement:
Drinking alcohol is one of the human weakness, which tends to test the will power of the drunker to the last.
Conclusions:
I. It is very difficult for the people to give up drinking alcohol if they want to.
II. Human beings have lots of weaknesses as well.

(a) Only conclusion I follows.

(b) Only conclusion II follows.

(c) Both conclusions I and II follows.

(d) Neither conclusion I nor II follows.

Answer: (c)

14. Manish cycled 35 km towards the North. Then he turned left and cycled 15 km. Again, he turned left and cycled 10 km. Finally, he turned right and cycled 15 km. In which direction is he facing now?

(a) West

(b) North

(c) East

(d) North-East

Answer: (a)

15. Which of the following options will replace the question mark (?) in the given letter series?
A, G, M, S, Y, ?

(a) C

(b) E

(c) D

(d) F

Answer: (b)

16. In the class of I.G.C.S.E students, there are 24 boys whose aggregate mathematics marks are above 70%. If these constitute three-fourths of the boys and the total number of boys is two-thirds of the total number of students in the class, what is the number of girls in the class?

(a) 16

(b) 18

(c) 32

(d) 48

Answer: (a)

17. Use the following information to solve the question below.
If P + Q means P is the father of Q.
P - Q means P is the mother of Q
P X Q means P is the sister of Q.
P / Q means P is the brother of Q.
P ! Q means P is the wife of Q.
In what way A is related to D in the given equation.
A ! B / C X D

(a) Daughter-in-law
(b) Sister
(c) Sister-in-law
(d) Daughter

Answer: (c)

18. Three of the following letter-clusters are alike and one is different. Select the option that indicates the odd one.

(a) YWT
(b) NLI
(c) ECZ
(d) SQM

Answer: (d)

General Awareness

21. Which Heritage Site represents the traditional s' of Kalinga Architecture?

(a) Konark Sun Temple, Orissa
(b) Hampi, Karnataka
(c) Sanchi stupa, Madhya Pradesh
(d) Ajanta Caves, Maharashtra

Answer: (a)

22. Pung Cholom dance is associated with which of the following state?

(a) Manipur
(b) Mizoram
(c) Assam
(d) Sikkim

Answer: (a)

23. Who among the following is the world's only female vichitra veena player?

(a) Mita Nag
(b) Dr. Radhika Umdekar Budhkar
(c) S. Sowmya
(d) Anupama Bhagwat

Answer: (b)

24. In which of the following state Itimad-Ud-Daulah's Tomb is situated?
    (a) Uttar Pradesh
    (b) Bihar
    (c) Madhya Pradesh
    (d) Gujarat
    Answer: (a)

25. In which of the following city Lotus Mahal is located?
    (a) Hampi
    (b) Patna
    (c) Jalandhar
    (d) Mumbai
    Answer: (a)

26. Pandit Bhimsen Gururaj Joshi an Indian vocalist from Karnataka is known for which of the following form of singing?
    (a) Raga Sagara
    (b) Khayal
    (c) Thumri
    (d) Tarana
    Answer: (b)

27. In which of the following states is the Neermahal ter festival celebrated annually in the months of August and December?
    (a) Odisha
    (b) Tamil Nadu
    (c) Tripura
    (d) Kerala
    Answer: (c)

28. The Losar festival of Arunachal Pradesh is celebrated during:
    (a) February - March
    (b) March - April
    (c) May - April
    (d) December
    Answer: (a)

29. The Champakulam Boat Race and Festival is celebrated during:
    (a) June - July
    (b) July - August
    (c) April - May
    (d) December
    Answer: (a)

30. The Bagh Caves, famous for ancient paintings, are situated in the state of _____.

(a) Jharkhand
(b) Bihar
(c) Madhya Pradesh
(d) Maharashtra

Answer: (c)

31. When was the National Rural Employment Guarantee Act passed by Indian parliament?

(a) 2007
(b) 2005
(c) 2006
(d) 2004

Answer: (b)

32. Which new Indian currency has a structure of Sanchi Stupa on the reverse side after demonetization?

(a) Rs. 50
(b) Rs. 200
(c) Rs. 10
(d) Rs. 20

Answer: (b)

33. The origin state of Fugdi Dance is:

(a) Rajasthan
(b) Goa
(c) Karnatak
(d) Lakshdeep

Answer: (b)

34. Where was the annual Aadi Mahotsav National Tribal Festival held from November 16 to November 30, 2019?

(a) Ranchi
(b) Jhansi
(c) New Delhi
(d) Kolkata

Answer: (c)

35. Which of the following is the main ozone-destroying gas?

(a) Nitrous oxide
(b) Carbon dioxide
(c) Chlorofluorocarbon
(d) Perfluoroisobutylene

Answer: (c)

36. The Battle of Hydaspes was fought between Alexander and _____ in 326 BC.

(a) Akbar
(b) Babur
(c) Ashoka
(d) Porus

Answer: (d)

37. Which of the following is the RIGHT sequence of the four stages in the metamorphosis of butterflies and moths?

(a) Egg, Pupa, Larva, and Adult
(b) Egg, Larva, Pupa, and Adult
(c) Egg, Cocoon, Pupa and Adult
(d) Egg, Cocoon, Larva, and Adult

Answer: (b)

38. The most common cause of goitres worldwide is a lack of _____ in the diet.

(a) iron
(b) potassium
(c) sodium
(d) iodine

Answer: (d)

39. Who among the following became the first Indian woman dancer to be awarded with Padma Vibhushan?

(a) Sonal Mansingh
(b) Mallika Sarabhai
(c) Niveditha Arjun
(d) Padma Subrahmanyam

Answer: (a)

40. In which of the following Manipuri folk dances do both men and women hold hands together to sing and dance in a circle?

(a) Kabui Naga
(b) Tandan Pheichak
(c) Thabal Chongba
(d) Lai-Haraoba

Answer: (c)

Arithmetic Ability

41. Which of the following numbers is divisible by both 2 and 5?

(a) 25
(b) 55
(c) 100
(d) 102

Answer: (c)

42. The least of five digits number which is exactly divisible by 10, 15 and 20 is _____.

(a) 10010
(b) 10020
(c) 10050
(d) 15000

Answer: (b)

44. Number 6819 is divisible by which of the following numbers?

(a) 2
(b) 3
(c) 5
(d) 9

Answer: (b)

49. Which of the following is a prime number?

(a) 143
(b) 289
(c) 117
(d) 359

Answer: (d)

52. If the LCM of two numbers is 216 and their product is 7776 then what will be its HCF?

(a) 36
(b) 18
(c) 24
(d) 72

Answer: (a)

53. The length of the two parallel sides of a trapezium are 15 cm and 20 cm. If its area is 175 sq cm then its height is _____.

(a) 10 cm
(b) 15 cm
(c) 17 cm
(d) 18 cm

Answer: (a)

57. In finding the HCF of two numbers by division method, the last divisor is 17 and the quotients are 1, 2, 1 and 5, respectively. What is the difference between the two numbers?

(a) 93
(b) 85
(c) 102
(d) 124

Answer: (a)

58. A boat can go 4.5 km upstream in 15 minute. The ratio of the speed of the boat in still water and that of the stream is 6 : 1. How much time (in hours) will the boat take to go 63 km downstream?

(a) 2.5
(b) 2.4
(c) 3
(d) 3.5

Answer: (a)

General English

61. Choose the correct homonym pair to be filled in the following sentence.
In _____ areas people have kulfi or ice cream as a _____.

(a) Dessert; Dessert
(b) Desert; Desert
(c) Dessert; Desert
(d) Desert; Dessert

Answer: (d)

62. Select the option is appropriate for the blanks.
The cat sits on the _____ and _____ at everyone.

(a) stairs; stairs
(b) stares; stairs
(c) stares; stares
(d) stairs; stares

Answer: (d)

63. Choose the option that is the homonym with the meanings 'a young deer' and 'try to gain favour by flattering someone'.

(a) fold
(b) fawn
(c) frown
(d) fray

Answer: (b)

64. Complete the idiom in the given sentence with the correct phrase from the options given below. The meaning of the idiom is given in parenthesis for guidance.
No, please don't say anything more to him. You will only _____ (say things that make the situation worse).

(a) pour oil on troubled waters

(b) stir things up

(c) take the bull by the horns

(d) take a back seat

Answer: (b)

65. Choose the CORRECT meaning of the following idiom.
At the drop of a hat

(a) Shockingly

(b) Immediately

(c) Abruptly

(d) Amusingly

Answer: (b)

66. Fill in the blank with the suitable option.
He was the most suitable _____ to the throne.

(a) heir

(b) here

(c) hair

(d) hare

Answer: (a)

67. Select the most appropriate meaning of the given idiom.
Walk on eggshells

(a) To lay a path made of eggshells outside one's home

(b) To break a lot of eggs by mistake, thus angering someone

(c) To finish an onerous task after careful research and hard work

(d) To be very careful not to offend someone or do anything wrong

Answer: (d)

68. Select the most suitable ANTONYMS of the following word from the options given below.
Stable

(a) Broken

(b) Dangerous

(c) Unstable

(d) Crossed

Answer: (c)

69. Choose the pair of HOMONYMS.

(a) Male and Mail

(b) Female and Male

(c) Sick and Pick

(d) Try and Trial

Answer: (a)

70. Select the most appropriate meaning of the idiom.
At daggers drawn

(a) Taking out one's dagger

(b) Fighting with daggers

(c) Being at loggerheads

(d) Drawing up of daggers during a duel

Answer: (c)

71. Select the word which is opposite in meaning to the word given below.
Metaphorical

(a) Simple

(b) Approving

(c) Literal

(d) Complicated

Answer: (c)

72. Select the word which is closest in meaning to t word given below.
Archetypal

(a) Small

(b) Dystopian

(c) Definitive

(d) Erroneous

Answer: (c)

73. Choose the most appropriate option to fill in the blanks.
The doctor said that the patient was making good _____ after the operation.

(a) raise

(b) passage

(c) decline

(d) progress

Answer: (d)

74. Choose the grammatically CORRECT option from the four choices given below.

(a) When things go as planned, we feel comfortable because when life throws a curveball, it creates anxiety and stress.

(b) When things go as planned, we feel comfortable thus when life throws a curveball, it creates anxiety and stress.

(c) When things go as planned, we feel comfortable but when life throws a curveball, it creates anxiety and stress.

(d) When things go as planned, we feel comfortable lest when life throws a curveball, it creates anxiety and stress.

Answer: (c)

75. Choose the grammatically CORRECT option from the four choices given below.

(a) The little information I had picked up from the internet was not enough to help me write the report.

(b) A little information I had picked up from the internet was not enough to help me write the report.

(c) A few information I had picked up from the internet was not enough to help me write the report.

(d) The few information I had picked up from the internet was not enough to help me write the report.

Answer: (a)

76. What is the national flower of Japan?

(a) cherry blossoms

(b) lily

(c) orchids

(d) sunflowers

Answer: (a)

77. Which of the following is NOT a natural disaster that Japan had to deal with?

(a) Earthquakes and Floods

(b) Destruction caused by the atom bombs

(c) Typhoons and Tsunamis

(d) Volcanic eruptions

Answer: (b)

78. From which Japanese word does Japan get its name?

(a) Sakura

(b) Fujiyama

(c) Kawasaki

(d) Nippon

Answer: (d)

Discipline1

101. Which of the following IS code provides methods of tests for determination of water absorption in burnt clay building bricks?

(a) IS 3495-Part 2:1992

(b) IS 3271-Part 2:1992

(c) IS 1418-Part 2:1992

(d) IS 2071-Part 2:1992

Answer: (a)

102. Pick odd one out based on geological formation of rocks.

(a) Granite

(b) Dolerite

(c) Gabbro

(d) Quartzite

Answer: (d)

103. Consider below statements with respect to vehicals used in paints.
Statement A : Linseed oil is most common vehicle extracted from flax seeds.
Statement B : Tung oil is far superior to linseed oil and is used for preparing paints of superior quality.
Identify CORRECT statement/s.

(a) Statement A is correct and B is incorrect

(b) Statement B is correct and A is incorrect

(c) Both satements are correct

(d) Both statements are incorrect

Answer: (c)

104. The magnetic bearing of a line PQ is S30° E, It is observed that the measure line PQ has a magnetic declination of 5° 30′ W. Calculatethe TRUE bearing of line PQ.

(a) S35° 30′E

(b) S24° 30′E

(c) S30° 30′E

(d) S24° 30′W

Answer: (a)

105. What is the sum of measured interior angles of a polygon consists of 7 sides in a traverse?

(a) 300 degrees

(b) 600 degrees

(c) 900 degrees

(d) 1200 degrees

Answer: (c)

106. Calculate the combined correction for curvature and refraction for a distance of 3 km.

(a) 0.159 m

(b) 0.605 m

(c) 0.916 m

(d) 1.230 m

Answer: (b)

108. Which of the following statement is INCORRECT with respect to assumptions made in the theory of pure bending?

(a) The value of young's modulus is the same for the beam material in tension as well as compression.

(b) The resultant pull or thrust on a transverse section of the beam has non zero value.

(c) The transverse section of the beam is symmetrical about an axis passing through the centroid of the section and parallel to plane of bending.

(d) The material of beam is homogeneous and isotropic.

Answer: (b)

109. According to national building code of India Part IV – 2016, Industrial buildings are classified as _____ based on occupancy.

(a) Group B

(b) Group G

(c) Group I

(d) Group C

Answer: (b)

111. Which of the following compound compo[illegible] NOT the Bogue's compound?

(a) Tricalcium silicate

(b) Tricalcium aluminate

(c) Di-calcium silicate

(d) Di-calcium aluminate

Answer: (d)

112. If the size of coarse aggregate used in making concrete is increased, the water requirement _____, keeping workability as constant.

(a) decreases

(b) increases

(c) remains same

(d) may or may not increase

Answer: (a)

113. Identify INCORRECT statement with respect to use of flyash in making concrete.

(a) Use of flyash in making concrete improves the secondary hydration of cement.

(b) Use of flyash in making concrete increases durability of concrete by reducing amount of calcium hydroxide content in concrete.

(c) Use of flyash in making concrete reduces heat of hydration in concrete.

(d) Use of flyash in making concrete increases durability of concrete by increasing amount of calcium hydroxide content in concrete.

Answer: (d)

114. Which of the following IS code provides “Method of tests for strength of concete”?

(a) IS-516:1959

(b) IS-456:2000

(c) IS-716:1976

(d) IS-756:1983

Answer: (a)

115. Determine the relative density index, if the in-situ percentage of voids of a sand deposit is 30%. Take e = 0.25 and e = 0.6. min max

(a) 55.46%

(b) 64.77%

(c) 85.71%

(d) 95.78%

Answer: (c)

116. Consider below statements with respe[illegible]n de[illegible]nination of grain size distribution.
Statement A : The percentage of various size[illegible]ticles in a given dry soil sample is found by sieve analysis, and sieve analysis is not affected by temperature.
Statement B : The percentage of various sizes of particles in a given dry soil sample coarser than 75 micron is found by sedimentation analysis.
Identify the CORRECT statement/s.

(a) Statement A is correct and B is incorrect

(b) Statement B is correct and A is incorrect

(c) Both satements are correct

(d) Both statements are incorrect

Answer: (a)

117. Which of the following Indian standard code should be referred for "Classification and identification of soils for general engineering purpose"?

(a) IS 1498-1970

(b) IS 2720-1970

(c) IS 3460-1970

(d) IS 6043-1970

Answer: (a)

118. Calculate the plastic limit of a soil sample, if its liquid limit = 30% and plasticity index = 18%.

(a) 1.67%

(b) 5.4%

(c) 12%

(d) 48%

Answer: (c)

119. Elongation index of an aggregate sample may be defined as:

(a) percentage by weight of aggregates whose greatest dimension is greater than 0.5 times of their mean dimension.

(b) percentage by weight of aggregates whose greatest dimension is greater than 1.2 times of their mean dimension.

(c) percentage by weight of aggregates whose greatest dimension is greater than 1.8 times of their mean dimension.

(d) percentage by weight of aggregates whose greatest dimension is greater than 2.1 times of their mean dimension.

Answer: (c)

120. As per IS 1199-1959 the slump mould shall be filled with concrete in _____ layers for the assessment of workability of conventional concrete.

(a) one

(b) two

(c) three

(d) four

Answer: (d)

Discipline2

121. In a differential levelling it is observed that staff reading at temporary bench mark (TBM) as 2.555 m and 3.015 m at 0 chainage of the differential levelling. Calculate the Reduced Level (RL) at 0 chainage, if the RL at TBM is 925 m.

(a) 921.985 m

(b) 924.540 m

(c) 927.555 m

(d) 928.015 m

Answer: (b)

122. In a compass surveying, it is observed that fore bearing of a line AB as 35° 30′, Calculate its back bearing. Consider that there is no local attraction.

(a) 144° 30′

(b) 180° 30′

(c) 215° 30′

(d) 324° 30′

Answer: (c)

124. Which of the following IS code provides guidelines for simple torsion test on metallic materials?

(a) IS 1717-2012
(b) IS 1700-2012
(c) IS 1770-2012
(d) IS 1751-2012

Answer: (a)

125. Pick odd one out with respect to tests conducted on cement.

(a) Blaines air permeability test
(b) Initial setting time test
(c) Soundness test
(d) Vee bee consistometer test

Answer: (d)

126. Pick odd one out with respect to the objective of tests conducted on soil.

(a) Sand replacement method
(b) Core cutter method
(c) Water replacement method
(d) Plate load method

Answer: (d)

127. As per Indian standards, Soil sample taken for finding liquid limit, shall pass through _____.

(a) 75 micron
(b) 150 micron
(c) 425 micron
(d) 630 micron

Answer: (c)

128. In a pipe flow the flow is said to be laminar if the reynolds number for the flow is _____.

(a) Less than 2300
(b) Less than 2000
(c) Less than 2500
(d) Less than 3000

Answer: (b)

129. Consider below statements with respect to remote sensing.
Statement A : Crop violations can be detected using remote sensing.
Statement B : Oil field detection can be made using remote sensing.
Identify CORRECT statement/s.

(a) Statement A is correct and B is incorrect
(b) Statement B is correct and A is incorrect
(c) Both statements are correct
(d) Both statements are incorrect

Answer: (c)

139. Pick odd one out with respect to classification of rivers.

(a) Mountainous river

(b) Delta rivers

(c) Tidal rivers

(d) Flashy river

Answer: (d)

140. Which of the following Indian standard code provides guidance for "subsurface exploration for earth and rock fill dams"?

(a) IS 3358:1978

(b) IS 6955-2008

(c) IS 2159:1982

(d) IS 4458:1999

Answer: (b)

Discipline3

141. The precipitation caused due to the upward movement of air that is warmer than its surroundings is called _____.

(a) Non frontal cyclonic precipitation

(b) Frontal cyclonic precipitation

(c) Convective precipitation

(d) Orographic precipitation

Answer: (c)

142. Which of the following type of transition c ntroduce the rate of change of centrifugal acceleration at uniform rate throughout the length of curve?

(a) Spiral

(b) Lemniscate

(c) Cubic parabola

(d) Simple circular

Answer: (a)

143. As per IRC reccomendations, the radius beyond which superelevation is not required = _____.
Consider design speed as 50 kmph and camber as 4%.

(a) 150 m

(b) 250 m

(c) 280 m

(d) 350 m

Answer: (c)

144. Which of the following is the longest railway platform in Indian railway?

(a) Kharagpur Railway Platform

(b) Bengaluru Railway Platform

(c) Mumbai Railway Platform

(d) Chennai Railway Platform

Answer: (a)

145. Width of Broad guage railway track used in Indian railways is equal to _____.

(a) 1575 mm

(b) 1626 mm

(c) 1646 mm

(d) 1676 mm

Answer: (d)

147. Which of the following is NOT the hydraulic coefficient related to orifice?

(a) Coefficient of dischrge

(b) Coefficient of velocity

(c) Coefficient of contraction

(d) Coefficient of expansion

Answer: (d)

148. In case of transit Vernier theodolite, if the upper clamp is clamped and the lower clamp is unclamped, the instrument will _____.

(a) rotate on its outer axis without any relative motion between Scale plate and Vernier plate

(b) rotate on its outer axis with relative motion between Scale plate and Vernier plate

(c) rotate on its inner axis without any relative motion between magnifiers and Vernier plate

(d) rotate on its inner axis with relative motion between Scale plate and Vernier plate

Answer: (a)

149. Calculate the degree of a simple curve if its radius is 60 m. Take 20 m arc length as the basis for the degree of curve.

(a) 12.21°

(b) 14.16°

(c) 19.1°

(d) 25.71°

Answer: (c)

150. Which of the following Autocad command is useful for creating parallel lines and curves while drawing a building plan?

(a) Offset

(b) Extend

(c) Mirror

(d) Fillet

Answer: (a)

151. While drawing a building plan using Autocad, _____ are displayed when you select an object without starting a command.

(a) Dots
(b) Grips
(c) Holds
(d) Polylines

Answer: (b)

152. Which of the following instrument is used for measuring soil suction / porewater tensions?

(a) Core cutter
(b) Tensiometer
(c) Flownets
(d) Triaxial instrument

Answer: (b)

153. Which of the following method is used to determine mean rainfall of an area?

(a) Prismoidal mean formula method.
(b) Thiessen mean Polygon method.
(c) Traphezoidal mean formula method.
(d) Link Polygon method.

Answer: (b)

154. Which of the following test apparatus is NOT us for assessing bitumen properties?

(a) Briquette apparatus
(b) Ring and Ball apparatus
(c) Viscometer
(d) Vicat apparatus

Answer: (d)

155. Which of the following IS code provides guidelines for Penetration test on bitumen?

(a) IS 1203-1978
(b) IS 12269-1978
(c) IS 10262-1978
(d) IS 1278-1978

Answer: (a)

157. Which of the following is NOT the assumption made in the analysis of welded joints?

(a) The welds connecting the various parts are homogeneous and isotropic elements.
(b) The welds connecting the various parts are elastic elements.
(c) The parts connected by the weld are rigid and their deformations are neglected.
(d) Effect of residual stresses, stress concentration and shape of the welds should be considered.

Answer: (d)

158. As per IS 456-2000, the basic value of span to effective depth ratio of a cantilever beam, spanning upto 10 m is _____.

(a) 5

(b) 7

(c) 9

(d) 10

Answer: (b)

159. As per IS 456-2000 reccomendations, identify INCORRECT statement with respect to pitch of transvers reinforcement in columns.

(a) pitch of transvers reinforcement shall not be more than least lateral dimension of compression members.

(b) pitch of transvers reinforcement shall not be more 12 times the smallest diameter of the longitudinal reinforcement bar to be tied.

(c) pitch of transvers reinforcement shall not be more 300 mm.

(d) pitch of transvers reinforcement shall not be more 16 times the smallest diameter of the longitudinal reinforcement bar to be tied.

Answer: (b)

160. Under what condition the Deduction for openings in measurement of plastering is done for both the faces?

(a) when the area of the opening is greater than 0.[illegible]q. m

(b) when the area of the opening is greater than [illegible]sq. m

(c) when the area of the opening is greater than [illegible]q. m

(d) when the area of the opening is gre[illegible] tha[illegible] sq. m

Answer: (d)

Discipline4

161. Under what circumstances/condition the Revised estimate is prepared?

(a) when the original sanctioned detailed estimate exceeds by 3%

(b) when the original sanctioned detailed estimate exceeds by 5%

(c) when the original sanctioned detailed estimate exceeds by 10%

(d) when the original sanctioned detailed estimate exceeds by 15%

Answer: (b)

162. Which of the following is the CORRECT unit of measurement for 20 mm thick Damp proof course (DPC)?

(a) Numbers

(b) Cubic meter

(c) Running meter

(d) Square meter

Answer: (d)

166. Consider the following statements with respect to circular sewer.
Statement A : It offers less opportunities for silt and debris to get deposited.
Statement B: It is the most economical section since it utilizes minimum quantity of material when compared to other geometries.

(a) Only statement A is true.

(b) Only statement B is true.

(c) Both statements are true.

(d) Both statements are false.

Answer: (a)

167. Which of the following statement/s is/are CORRECT with respect to carbon monoxide?
Statement A : The affinity of CO for hemoglobin is 10 times lesser than that of oxygen.
Statement B : Excess of CO result in death by asphyxiation.

(a) Statement A is true B is false.

(b) Statement B is true A is false.

(c) Both statements are true.

(d) Both statements are false.

Answer: (b)

168. A system of water supply in which water is supplied to the consumers, only during some fixed hours of the day is known as _____.

(a) Regular system

(b) Pumping system

(c) Continuous system

(d) Intermittent system

Answer: (d)

169. Which of the following is a class of organic carcinogens leading to bladder cancer?

(a) Asbestos

(b) Aromatic amines

(c) Copper

(d) Lead

Answer: (b)

170. According to IS 10500-2012, the acceptable limit of pH range for treated drinking waters is _____.

(a) 5-7

(b) 7-9

(c) 6.5-8.5

(d) 8.5-10.5

Answer: (c)

172. Consider below statements with respect to deflections of prestressed concrete members and Identify correct answer.
Statement A : Deflections of prestressed concrete member is influenced by magnitude of prestressing force.
Statement B : Deflections of prestressed concrete members is influenced by modulus of elasticity of concrete.

(a) Statement A is correct and B is incorrect

(b) Statement B is correct and A is incorrect

(c) Both statements are correct

(d) Both statements are incorrect

Answer: (c)

174. Activity A has a Day 22 Latest Finishing Time and a Day 15 Earliest Starting Time. Calculate the total float for Activity A.

(a) 7

(b) 15

(c) 22

(d) 37

Answer: (a)

175. Consider below statements with repsect to Critical path method used for project scheduling.
Statement A : Activities that are critical lie along the lo[illegible]est path through the network.
Statement B : Critical activities can be delayed witho[illegible]xtending the project duration.
Identify CORRECT statement/s.

(a) Statement A is correct and B is incorrect

(b) Statement B is correct and A is inco.

(c) Both satements are correct

(d) Both statements are incorrect

Answer: (a)

178. For the computation of average daily traffic, the minimum duration of continuous traffic count made at a location is _____.

(a) 5 days

(b) 7 days

(c) 9 days

(d) 11 days

Answer: (b)

179. Which of the following regulatory sign is NOT in circular shape?

(a) No parking sign

(b) Speed limit sign

(c) One way traffic sign

(d) Stop sign

Answer: (d)

180. What is Passenger car unit value recommended by IRC for Passenger car at signalized intersection on urban roads?

(a) 0.4
(b) 1.0
(c) 2.2
(d) 3.4

Answer: (b)

Discipline5

181. Speed limit signs are circular in shape and have _____ background and _____border respectively.

(a) black.;white
(b) white; red
(c) red; white
(d) black; red

Answer: (b)

182. Soak pits are preferable where _____.

(a) water table level is high
(b) soil is impermeable
(c) soil is porous
(d) water table level is high and the soil is porous

Answer: (c)

183. In Sanitary landfill, control of leachate movement into ground can be accomplished by _____.

(a) Shredding
(b) Landfill sealants
(c) Incineration
(d) Pyrolysis

Answer: (b)

184. Which of the following type of pile can be used as compaction piles?

(a) Anchor piles
(b) Sand piles
(c) Friction piles
(d) End bearing piles

Answer: (b)

185. Consider below statements with respect to suitability of earth embankment type coffer dam.
Statement A : This type of cofferdam requires large base area and is adopted when an area of excavation is very large.
Statement B : Clay soil is appropriate for the construction in wet season.
Identify CORRECT statement/s.

(a) Statement A is correct and B is incorrect

(b) Statement B is correct and A is incorrect

(c) Both satements are correct

(d) Both statements are incorrect

Answer: (a)

186. Pick odd one out with respect to design of pavements.

(a) Group index method

(b) Westergaurd's stress equation method

(c) California bearing ration method

(d) Burmister method

Answer: (b)

187. Consider below statements with respect to design of flexible pavements using Burmister method.
Statement A : The surface layer of pavment is infinite in horizontal direction and finite in vertical direction.
Statement B : The surface layer of pavment is finite in horizontal direction and infinite in vertical direction.
Identify CORRECT statement/s.

(a) Statement A is correct and B is inco

(b) Statement B is correct and A is incorrect

(c) Both satements are correct

(d) Both statements are incorrect

Answer: (a)

188. Consider below statements with respect to guidelines on energy consumption and identify CORRECT statement.
Statement A : Energy Consumption Building Code (ECBC) provides guidelines on energy consumption.
Statement B : National Building Code (NBC) provides guidelines on energy consumption.

(a) Statement A is correct and B is incorrect

(b) Statement B is correct and A is incorrect

(c) Both satements are correct

(d) Both statements are incorrect

Answer: (c)

189. The corrosion of steel reinforcement in RCC structures does NOT cause _____.

(a) Spalling of concrete

(b) Reduced cross sectional area of corroded steel

(c) Reduced load carrying capacity

(d) Reduced carbonation of concrete

Answer: (d)

190. Which of the following building service does NOT come under mechanical services type?

(a) Firefighting Systems

(b) Elevators and Escalators

(c) Heating, Ventilation and Air Conditioning Systems

(d) Power Supply

Answer: (d)

191. Which of the following instrument can be used to locate the steel reinforcements and measures the sizes of the bars embedded in concrete?

(a) Rebound hammer

(b) Pachometer

(c) Magnetic compass

(d) Passometer

Answer: (b)

192. As per IS 13935-2009, which of the following is NOT an architectural repair?

(a) Replastering of walls as required Relaying of cracked flooring at ground level

(b) Patching up of defects such as cracked areas of plaster

(c) Rebuilding of parapet walls

(d) fiber-reinforced polymer wrapping

Answer: (d)

193. In the design of an interior panel of a flat slab of size 5 m × 5 m without providing drop and column head, the maximum value of ratio of larger span to thickness shall be _____.
Cosider that Fe 415 steel isused for construction

(a) 24.6

(b) 28.8

(c) 32

(d) 40

Answer: (b)

194. Which of the following statement is INCORRECT with respect to characteristic features of yield lines?

(a) Yield lines are straight lines.

(b) Yield lines may terminate at boundaries.

(c) Yield lines will not terminate at the intersection of other yield lines.

(d) Yield lines act as axes of rotations.

Answer: (c)

195. Pick odd one out with respect to classification of shells as per IS 2210 : 1988.

(a) Conical shells
(b) Cylindrical shells
(c) North light shells
(d) Funicular shells

Answer: (d)

196. Expand the term EMD ,which is to be furnished by a tenderer along with its tender.

(a) Early Money Deposit
(b) Earnest Money Deposit
(c) Extra Money Deposit
(d) Essential Money Deposit

Answer: (b)

197. The body of the Vedas rests on the _____ vedanga.

(a) Jyotisha
(b) Kalpa
(c) Chandas
(d) Siksha

Answer: (c)

198. _____ is a form of private equity and a type of ancing that investors provide to startup companies and small businesses.

(a) Intellectual capital
(b) Venture capital
(c) Social capital
(d) Economic capital

Answer: (b)

199. Citizenship Act was passed in parliament in the year _____ in India.

(a) 1947
(b) 1950
(c) 1955
(d) 1963

Answer: (c)

200. Which of the following article mention “right to move freely throughout the territory of India”?

(a) Article 5
(b) Article 10
(c) Article 19
(d) Article 26

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

2	**(c)**	3	**(c)**	4	**(b)**	5	**(a)**	6	**(c)**	7	**(b)**	8	**(d)**	9	**(c)**		
12	**(c)**	14	**(a)**	15	**(b)**	16	**(a)**	17	**(c)**	18	**(d)**						

General Awareness

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

Arithmetic Ability

41	**(c)**	42	**(b)**	44	**(b)**	49	**(d)**	52	**(a)**	53	**(a)**	57	**(a)**	58	**(a)**		

General English

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

Discipline1

101	**(a)**	102	**(d)**	103	**(c)**	104	**(a)**	[illegible]	**(c)**	106	**(b)**	108	**(b)**	109	**(b)**		
111	**(d)**	112	**(a)**	113	**(d)**	114	[illegible].5		**(c)**	116	**(a)**	117	**(a)**	118	**(c)**		
119	**(c)**	120	**(d)**														

Discipline2

121	**(b)**	122	**(c)**	124	**(a)**	125	**(d)**	126	**(d)**	127	**(c)**	128	**(b)**	129	**(c)**		
139	**(d)**	140	**(b)**														

Discipline3

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

Discipline4

161	**(b)**	162	**(d)**	166	**(a)**	167	**(b)**	168	**(d)**	169	**(b)**	170	**(c)**	172	**(c)**		
174	**(a)**	175	**(a)**	178	**(b)**	179	**(d)**	180	**(b)**								

Discipline5

181	**(b)**	182	**(c)**	183	**(b)**	184	**(b)**	185	**(a)**	186	**(b)**	187	**(a)**	188	**(c)**		
189	**(d)**	190	**(d)**	191	**(b)**	192	**(d)**	193	**(b)**	194	**(c)**	195	**(d)**	196	**(b)**		
197	**(c)**	198	**(b)**	199	**(c)**	200	**(c)**										