PREVIOUS YEAR PAPER

DSSSB Technical Assistant (Digital Electronics) 2021 — 7 August 2021

DSSSB Other Posts · 7 August 2021

170 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: 30 (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 7 August 2021. 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-digital-electronics-7-aug/

General Awareness

1. Laho dance form is associated with which of the following states?

(a) Meghalaya
(b) Nagaland
(c) Madhya Pradesh
(d) West Bengal

Answer: (a)

2. Baneshwar fair is an annual tribal fair held in Rajas n. The fair is held in the month of _____.

(a) August or September
(b) October or November
(c) January or February
(d) April or May

Answer: (c)

3. Stock refers to those variables which are measured at a particular point in time. Which among the following is an example of stock concept?

(a) Wealth
(b) Income
(c) Investment
(d) Interest on Capital

Answer: (a)

4. National Bank for Agriculture and Rural Development (NABARD) was dedicated to the service of the nation by _____.

(a) Jawaharlal Nehru
(b) Rajiv Gandhi
(c) Charan Singh
(d) Indira Gandhi

Answer: (d)

5. Which among the following pairs of disease and body part affected is wrong?

(a) Glaucoma - Eyes
(b) Typhoid - Intestine
(c) Otitis - Skin
(d) Rickets - Bones

Answer: (c)

6. Which among the following is not a physical property of non-metals?

(a) They produce metallic lustre.
(b) They are bad conductor of electricity.
(c) They are bad conductor of heat.
(d) They are electronegative.

Answer: (a)

7. The famous Nallamala Hills are one of the ranges of the _____ that stretch over the Mahabubnagar and Kadapa districts of Andhra Pradesh.

(a) Aravalli
(b) Vindhayas
(c) Western Ghats
(d) Eastern Ghats

Answer: (d)

8. Which among the following lakes in not in Jammu Kashmir?

(a) Dal lake
(b) Wular lake
(c) Rudrasagar lake
(d) Tulian Lake

Answer: (c)

9. Who among the following Governor Generals established the first Medical College in Calcutta?

(a) Lord Canning
(b) Lord Bentinck
(c) Lord Hastings
(d) Lord Curzon

Answer: (b)

10. Who among the following presided over the Allahabad session of 1892 of the Indian National Congress?

(a) Ananda Mohan Bose
(b) Surendranath Banerjee
(c) Womesh Chandra Bonnerjee
(d) Dadabhai Naoroji

Answer: (c)

11. Mahatma Gandhi was assassinated in _____ in the compound of Birla Gandhi's House.

(a) 1948
(b) 1947
(c) 1949
(d) 1950

Answer: (a)

12. The headquarters of International Maritime Organisation (IMO) is located in _____.

(a) Vienna
(b) London
(c) Paris
(d) Geneva

Answer: (b)

13. Who among the following was the first Indian to be featured as the Person of the Year by Time magazine?

(a) Morarjee Desai
(b) Sardar Vallabhbhai Patel
(c) Jawaharlal Nehru
(d) Mahatma Gandhi

Answer: (d)

14. _____ has joined hands with The Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), German Federal Ministry for Economic Cooperation and Development (BMZ) to help businesses tackle post-Covid challenges.

(a) Indian Institute of Management Indore
(b) Indian Institute of Management Calcutta
(c) Indian Institute of Management Bangalore
(d) Indian Institute of Management Lucknow

Answer: (a)

15. Which among the following countries is the top contributor towards India's Foreign Direct Inflow (FDI) for FY 2020-2021?

(a) Japan
(b) Mauritius
(c) United States of America
(d) Singapore

Answer: (d)

16. Which among the following states announced 'corona-free village' competitions, where three villages in each revenue district will be awarded prizes up to ₹50 lakh?

(a) Madhya Pradesh
(b) Maharashtra
(c) Rajasthan
(d) Gujarat

Answer: (b)

17. Who among the following is the first lady Chief Minister of a state in India?

(a) Anwara Taimur
(b) Shashikala Kakodkar
(c) Nandini Satpathy
(d) Sucheta Kripalani

Answer: (d)

18. 102nd Constitutional Amendment deals with _____.

(a) introduction of the Goods and Services Tax
(b) granting constitutional status to National Commission for Backward Classes
(c) substitution of "Odia" for "Oriya"
(d) empowerment of the Governor of Karnataka to take steps to develop the Hyderabad-Karnataka Region

Answer: (b)

19. The 2027 men's ODI World Cup will feature ___ teams after the ICC Board decided to expand the quadrennial tournament in its next cycl[illegible] eve

(a) 18
(b) 10
(c) 12
(d) 14

Answer: (d)

20. Who among the following chess players won the FTX Crypto Cup 2021?

(a) Magnus Carlsen
(b) So Wesley
(c) Fabiano Caruana
(d) Anish Giri

Answer: (a)

General Ability

21. In question, a series is given, with one term missing. Choose the correct alternative from the given one that will complete the series.
AB4, CD8, EF12, ?

(a) GI14
(b) HJ18
(c) GH16
(d) HG16

Answer: (c)

22. In question, a series is given, with one term missing. Choose the correct alternative from the given one that will complete the series. w67p, v72s, u77v, ? , s87b

(a) t82y
(b) t81x
(c) t80o
(d) t88y

Answer: (a)

23. In the following question, select the odd letter group from the given alternatives.
AC, JM, PS, GJ, WZ

(a) GJ
(b) WZ
(c) JM
(d) AC

Answer: (d)

24. In the following question, select the odd letter group from the given alternatives.
YV, WU, TQ, RP, MJ, KH

(a) RP
(b) MJ
(c) KH
(d) WU

Answer: (c)

25. Select the option that is related to the third term on the same basis as the second term is related to the first term.
FJM : UQN : : BEH : ?

(a) CFI
(b) SVY
(c) YVS
(d) VRO

Answer: (c)

26. Select the option that is related to the third term on the same basis as the second term is related to the first term.
WS : 48 : : PU : ?

(a) 116
(b) 115
(c) 114
(d) 117

Answer: (a)

27. IF 'GOAT' is written as 'TOAG', then 'CASE' is written as?

(a) ESAC
(b) EASC
(c) ASCE
(d) ECAS

Answer: (b)

28. In a certain code 'BIRD' is written as 'ACHJQSCE', then how will 'DISC' be written in that code?

(a) CEJHRTBD
(b) ECHJRTBD
(c) CEHJTRBD
(d) CEHJRTBD

Answer: (d)

29. Rajesh is the brother of Ankit. Shano is the siste[illegible] Shuvam. Ankit is the son of Shano. How is Rajesh related to Shano?

(a) Paternal cousin brother
(b) Paternal nephew
(c) Son
(d) Paternal uncle

Answer: (c)

30. Introducing Shilpa to guests, Shyam said, " Her father is the only son of my father". How is Shilpa related to Shyam?

(a) Sister
(b) Daughter
(c) Wife
(d) Mother

Answer: (b)

31. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statement to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statement.
Statements: I. Some schools are factories.
II. All factories are shops.
Conclusions: (I) All shops are factories.
(II) Some shops are schools.

(a) Only conclusion (I) follow

(b) Only conclusion (II) follow

(c) Either (I) or (II) follow

(d) Neither (I) nor (II) follow

Answer: (b)

32. In the question four statements are given, followed by four conclusions, I, II, III and IV. You have to consider the statement to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statement.
Statements: I. Some baskets are glasses.
II. All glasses are pots.
III. some pots are plates.
IV. All plates are cups
Conclusions: (I) No glasses are pots.
(II) All glasses are baskets.
(III) Atleast some pots are baskets.
(IV) Some plates being glasses is a possibility.

(a) (I) and (II) follows

(b) (III) and (IV) follows

(c) Only (III) follow

(d) None follows

Answer: (b)

33. In the following question, select the odd number from the given alternatives.
5, 15, 3, 18, 6, 42, 8

(a) 15

(b) 8

(c) 3

(d) 42

Answer: (d)

34. Select the option that is related to the third term on the same basis as the second term is related to the first term.
5 : 625 : : 7 : ?

(a) 875

(b) 343

(c) 2401

(d) 1225

Answer: (c)

Arithmetic Ability

41. Express 1 less than the square root of the square of the square of the number 32 in binary form.

(a) 111111111
(b) 11111111
(c) 1111111111
(d) 1111111

Answer: (c)

42. A number 1 X 15 when divided by 15 leads to the square of the square of 3. Find the value of X.

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

Answer: (b)

43. There was a group of 40 people who played cricket. 20 of them played on weekdays and the whole group played on weekends. Find the average number of people who played in the month of April starting with a Saturday.

(a) 23.33
(b) 26.67
(c) 30
(d) 33.33

Answer: (b)

44. There are four numbers W, X, Y and Z. X [illegible]rcent greater than W. Y is 20 percent lesser than X and Z is 50 percent greater than Y. By how much is Z greater than W?

(a) 100 percent
(b) 110 percent
(c) 120 percent
(d) 125 percent

Answer: (b)

45. In a college student council elections, X got 35 percent of the total votes and Y got 60 percent of the remaining votes. Z got the remaining votes and his count was 780 votes. How many votes did Y get?

(a) 1140
(b) 1170
(c) 1200
(d) 1230

Answer: (b)

46. If a good is sold at 20 percent more than its usual selling price, then the profit percent becomes 25 percent. Find the original profit percent.

(a) 4.05 percent

(b) 4.09 percent

(c) 4.13 percent

(d) 4.17 percent

Answer: (d)

47. The cost of an airplane was Rs 750 million and the cost of its repairs was Rs 5 crore. It was sold for Rs 1 billion. Find the profit percent.

(a) 20 percent

(b) 25 percent

(c) 30 percent

(d) 33.33 percent

Answer: (b)

48. X and Y earn in the proportion of 4 : 5 and spend in the ratio of 5 : 4. If X saves Rs 400 out of Rs 2,400, then find the savings of B?

(a) Rs 1,200

(b) Rs 1,400

(c) Rs 1,600

(d) Rs 1,800

Answer: (b)

49. A sum of money is to be distributed am[illegible]st A[illegible] and C in the ratio of 3 : 4 : 5 but it was instead distributed in the ratio of 1/3 : 1/4 : 1/5. A got [illegible]0 more due to this mistake. Find the sum of money distributed.

(a) Rs 36,000

(b) Rs 37,600

(c) Rs 39,200

(d) Rs 40,000

Answer: (b)

50. Find the effective rate of compound interest per annum if the rate of interest if 200 percent per annum compounded quarterly?

(a) 200 percent

(b) 306.25 percent

(c) 350 percent

(d) 406.25 percent

Answer: (d)

51. A sum of money earns Rs 1600 as simple interest of X percent for X years. If the principal was Rs 2500, then find the value of X.

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

Answer: (d)

52. 2 cars A and B have to complete a journey one after the other of 750 kms in 10 hours. A takes half the time but only covers 40 percent of the distance. What should be the speed of B if the distance is now to be covered in 90 percent of the original time?

(a) 112.5 kmph
(b) 115 kmph
(c) 117.5 kmph
(d) 120 kmph

Answer: (a)

53. A car can cover 96 kms in an hour. How much can the car cover in 12 seconds?

(a) 80 m
(b) 160 m
(c) 240 m
(d) 320 m

Answer: (d)

54. X who can do the work in 10 days work[illegible] for 4[illegible]ys and left. Y was given the task to finish the rest of the work. Find the number of days tha[illegible]take if Y can do the whole task in 25 days.

(a) 15 days
(b) 12.5 days
(c) 10 days
(d) 7.5 days

Answer: (a)

55. X, Y and Z can finish half of their jobs in 20, 30 and 40 days respectively. In how many days can they finish the job working together?

(a) 120/13
(b) 240/13
(c) 120/17
(d) 240/17

Answer: (b)

56. A cylinder with a radius of 84 cm and height as 72 cm has been melted and reformed so that smaller cones of radius 3.5 cm and height 3 cm can be formed. Find the number of cones formed.

(a) 20736

(b) 31104

(c) 41472

(d) 62208

Answer: (c)

57. Find the difference between the total and curved surface area of a cylinder with radius 7 cm and height 10 cm.

(a) 154 sq cm

(b) 616 sq cm

(c) 308 sq cm

(d) 462 sq cm

Answer: (c)

General English

81. The sentence below has been divided into three parts. Select the part of the sentence that has an error. If the sentence has no error, select the option 'No Error'.
If you suspect a problem but cannot/ meet this criterion, recommend further/ review by an expert statistician.

(a) If you suspect a problem but cannot

(b) meet this criterion, recommend further

(c) review by an expert statistician.

(d) No Error

Answer: (d)

82. The sentence below has been divided into three parts. Select the part of the sentence that has an error. If the sentence has no error, select the option 'No Error'.
The third criteria is the degree of/ independence possessed by the bank/ and the juridical basis on which this rests.

(a) The third criteria is the degree of

(b) independence possessed by the bank

(c) and the juridical basis on which this rests.

(d) No Error

Answer: (a)

83. Select the word segment that substitutes (replaces) the bracketed word segment correctly and completes the sentence meaningfully. Select the option 'no correction required' if the sentence is correct as given.
They do not come (with the control of the Greyhound Board of the Great Britain).

(a) with the control of the Greyhound Board of Great Britain

(b) under the control of the Greyhound Board of the Great Britain

(c) under the control of the Greyhound Board of Great Britain

(d) No correction required

Answer: (c)

84. Select the word segment that substitutes (replaces) the bracketed word segment correctly and completes the sentence meaningfully. Select the option 'no correction required' if the sentence is correct as given.
He spent nine hours in jail (and he was issued three summons).

(a) for he was issued three summons

(b) although he was issued three summonses

(c) while he was issued three summons

(d) No correction required

Answer: (b)

85. Fill in the blank with the most appropriate choice
It probably seems unnecessary to write a corny _____ ____ for a man whose TV persona virtually defined corniness for over three decades.

(a) eulogy

(b) ecology

(c) pyrology

(d) ethology

Answer: (a)

86. Fill in the blank with the most appropriate choice
Eventually he let me go, thankfully without insisting I forfeit my memory card or _____ at his feet or sign a written apology.

(a) antinovel

(b) grovel

(c) shrivel

(d) gravel

Answer: (b)

87. Some parts of a sentence have been jumbled up, and labelled P, Q, R and S. Select the option that gives the correct sequence in which these parts can be rearranged to form a meaningful and grammatically correct sentence.
Religious revivals may
P. the relatively impious
Q. time, particularly when
R. occur from time to
S. find that their cultural
identity under attack.

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

Answer: (c)

88. Select the word that is similar in meaning (SYNONYM) to the word given below Plaintiff

(a) Defendant
(b) Suspect
(c) Litigant
(d) Accuser

Answer: (d)

89. Select the word that is opposite in meaning (ANTONYM) to the word given below Tarnish

(a) Defile
(b) Corrode
(c) Brighten
(d) Blemish

Answer: (c)

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

(a) successful
(b) succesful
(c) successfull
(d) sucessful

Answer: (a)

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

(a) restaurant
(b) restarant
(c) restaraunt
(d) restraunt

Answer: (a)

92. Select the most appropriate meaning of the given idiom Van Gogh's ear for music

(a) Undecided

(b) When multiple people all agree on the same thing.

(c) Anxious or nervous, especially in anticipation of something.

(d) Tone deaf

Answer: (d)

93. Select the most appropriate meaning of the given idiom Variety is the spice of life

(a) To enjoy yourself by going out.

(b) When someone puts themself in a risky situation.

(c) Something that suddenly and unexpectedly occurs.

(d) The more experiences you try the more exciting life can be.

Answer: (d)

94. Select the most appropriate 'one word ' for the expressions given below Fear of being confined to small place

(a) Homophobia

(b) Acrophobia

(c) Claustrophobia

(d) Xenophobia

Answer: (c)

95. Select the most appropriate 'one word ' for the e essions given below Lacking moderation or sobriety

(a) Stupor

(b) Conundrum

(c) Repartee

(d) Intemperate

Answer: (d)

96. What kind of toxic chemical does PVC release on being burnt?

(a) Sulphur dioxide

(b) Sulphur Oxide

(c) Dioxin

(d) Carbon Monoxide

Answer: (c)

97. Which of the following is not a toxin produced by gasification of waste?

(a) Heavy metals

(b) Acidic Gases

(c) Manure

(d) Dioxins

Answer: (c)

99. Who is referred to as he in the line, "He claims no air pollution will be caused and that the ash produced can be used as manure."?

(a) State Government
(b) Former Transport Minister
(c) Delhi Chief Minister
(d) Delhi Government

Answer: (b)

100. The process of gasification work by _____?

(a) Recycling waste
(b) Burning waste
(c) Disposing waste
(d) Landfilling waste

Answer: (b)

Discipline1

101. Which of the following devices uses high dielectric material for safety?

(a) Generators
(b) Wires insulation
(c) Switch bases
(d) Motors

Answer: (b)

102. The high amount of energy is stored i[illegible]ch [illegible]he following capacitors?

(a) Gang capacitor
(b) plastic film capacitor
(c) Mica capacitor
(d) Tuned circuit

Answer: (c)

103. We can Increase the Inductance of materials by the following methods?

(a) By increasing dielectric constant of the material
(b) By decreasing dielectric constant of the material
(c) By reducing the turn number
(d) By increasing coil turns number

Answer: (d)

104. The Dielectric used in the variable Capacitor is_____.

(a) Mica (solid)
(b) Electrolyte
(c) Air
(d) ferromagnet material

Answer: (c)

105. Which bridge is used for the measurement of capacitance?

(a) DC bridge

(b) Wheatstone bridge circuit

(c) Schering bridge circuit

(d) Hay's bridge circuit

Answer: (c)

106. What is the NO contact of an 8 Pin Relay?

(a) 1&3;6&8

(b) 2&4;5&7

(c) 1&3;2&7

(d) 1&8,5&7

Answer: (a)

107. How many OR gates and AND gates are required to realize:
Y = AB + FG+ R ?

(a) 2,2 respectively

(b) 2,3 respectively

(c) 3,2 respectively

(d) 3,3 respectively

Answer: (a)

108. A Full adder circuit consists of the following out and input lines:

(a) Three input lines and three output lines

(b) Two input lines and one output lines

(c) Two input lines and two output lines

(d) Three input lines and two output lines

Answer: (d)

109. What is the full form of PGA in IC fabrication?

(a) Plastic Greater Array

(b) Pin Greater Array

(c) Pin Grid Array

(d) Plastic Grid Array

Answer: (c)

110. A D-flipflop is basically a _____.

(a) Driver circuit

(b) Divider circuit

(c) Differentiator circuit

(d) Delay circuit

Answer: (d)

111. When is TTL circuit is used as a current source?
(a) High State
(b) Low State
(c) Intermediate State
(d) High output Impedance State
Answer: (a)

112. For a 10 bit A to D converter what will be the approximately quantization error?
(a) 10 percent
(b) 0.1 percent
(c) 0.001 percent
(d) 1.0 percent
Answer: (b)

113. What happens to the collector current in CE configuration after negative feedback is provided?
(a) Increase
(b) Remain same
(c) First Increase then decrease
(d) Decrease
Answer: (d)

114. In which region a UJT works beyond the peak po
(a) Negative Resistance Region
(b) Saturation Region
(c) Active Region
(d) Cut off Region
Answer: (a)

115. In which of the following applications thyristor is used?
(a) VFD
(b) PLC
(c) Timer circuit
(d) Mosfet
Answer: (a)

116. Electrons are removed from which of the areas in a photoelectric effect?
(a) Nucleas
(b) Surface
(c) core area
(d) Inner Shell
Answer: (b)

117. Where are the Bus Switches used?
(a) Multi microprocessor system
(b) Bus window technique
(c) Star Topology
(d) Crossbar switching
Answer: (d)

118. Wire wound resistor at high frequency behave as a(n) _____.
(a) Capacitor
(b) Diode
(c) Triac
(d) Inductor
Answer: (d)

119. For which case ohm law is not applicable?
(a) DC circuit
(b) Insulator
(c) Transformer
(d) AC circuit
Answer: (b)

120. To reduce soldering of components which type of PCB is chosen?
(a) Double sided PCB
(b) Single Ended PCB
(c) Single sided PCB
(d) Three ended PCB
Answer: (a)

Discipline2

121. The least expensive Technology is for PCB Design is:
(a) Surface mount Technology
(b) Printed Circuit Board
(c) Through hole Technology
(d) CAD design Technology
Answer: (c)

122. Surface Mount Technology require_____.
(a) Parallel connecting Pins
(b) Holes and pads
(c) Direct mounting
(d) Parallel PCB
Answer: (c)

123. The most commonly used type of PCB Board is _____.

(a) Dual-In-Pack
(b) flat pack
(c) TO pack
(d) SMT

Answer: (d)

124. In 8085, which one of the following affects the flags maximum ?

(a) RRC
(b) ORA A
(c) EXCHG A
(d) XRA A

Answer: (d)

125. Which model is considered as project risk factors?

(a) Prototype Model
(b) Semi-Prototype model
(c) Water fall model
(d) Spiral Model

Answer: (d)

126. What is the function of a tri-state buffer?

(a) To avoid complexity during reading
(b) To minimize loading duration
(c) To avoid loading effect
(d) To provide User interface

Answer: (c)

127. Why does the microcontroller uses batteries for the Power Supply?

(a) Low voltage dissipation
(b) Low Current Consumption
(c) High power Dissipation
(d) Low Power Consumption

Answer: (d)

128. For which reason the CISC type processor is designed?

(a) Maximize the compilation
(b) Minimize user Interface
(c) Minimize power consumption
(d) Reduce instruction sets

Answer: (d)

129. During transmission digital data is more secure because of _____.

(a) High frequency transmission
(b) Low frequency transmission
(c) Power consumption less
(d) It remain encryption

Answer: (d)

130. In digital transmission, the error performance is quantified in terms of _____.

(a) Baud rate
(b) Data rate
(c) BER
(d) Bit rate

Answer: (c)

131. What is the main reason for Delay Handoff?

(a) Weak signal, High traffic
(b) Limited BSC, High traffic
(c) Fading effect
(d) Limited BSC, High MSC

Answer: (a)

132. What is the time base of a Timer?

(a) Time difference between two successive tim dices
(b) Timer preset value
(c) Timer accumulator value
(d) Timer set state

Answer: (a)

133. Program counter gets effected by which instruction?

(a) Push, PoP
(b) Call, Return
(c) PSW
(d) Call, Jump

Answer: (d)

134. During _____ operaiton, stack point gets increamented in a microprocessor.

(a) Pop
(b) Return
(c) Call
(d) Push

Answer: (d)

135. _____ are used to connect a computer to a network.

(a) IP address
(b) Gateways
(c) connector
(d) Splitter

Answer: (b)

136. What is the main advantage of a Real-time System?

(a) More Accurate, Specific
(b) More software-dependent
(c) Easy to design
(d) Slow working device

Answer: (a)

137. What is the range of memory size in a real-time system?

(a) Megabyte-range
(b) Kilobyte-range
(c) Terabyte-range
(d) Picobyte-range

Answer: (b)

138. What is the full form of DCS?

(a) Digital Control System
(b) Distributed Control System
(c) Data Control System
(d) Dual Control System

Answer: (b)

139. Why is parity bit used in data transmission and analysis?

(a) For Error detection
(b) For Error Correction
(c) Power Level check-up
(d) Diagnostic Monitor

Answer: (a)

140. What is the abstract form of Venn Diagram?

(a) Block diagram
(b) K-map
(c) Cyclic Diagram
(d) Schematic Diagram

Answer: (b)

Discipline3

141. A JFET is a _____device.

(a) Bipolar
(b) Unipolar
(c) Tripolar
(d) Nonpolar

Answer: (b)

142. What is the controlling parameter of MOSFET as CS biasing mode?

(a) Vds
(b) Vgs
(c) Gate current
(d) Source current

Answer: (b)

143. Piezoelectric material uses which of the following combination?

(a) Potassium niobate
(b) Rochelle salt
(c) Lead zirconate
(d) Barium Titanium oxide

Answer: (b)

144. How we can measure a resistance that normall annot be a measured using a normal multimeter?

(a) By converting into an Ohm Meter
(b) By connecting a series of resistance
(c) By connecting a parallel resistance
(d) By measuring current and Voltage individually

Answer: (d)

145. What is the tolerance value for no color in a resistor?

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

Answer: (c)

146. What happens during the charging of a lead-acid battery?

(a) Electrolyte's gravity decreases
(b) Electrolyte's gravity increases
(c) Electrolyte's gravity becomes zero
(d) Electrolyte's gravity remain same

Answer: (b)

147. Why cells are connected in parallel with the previous one?

(a) To increase maximum output

(b) To save power loss

(c) To increase current capacity

(d) To increase lifetime

Answer: (c)

148. What is a timer?

(a) Switching device

(b) Controlling device

(c) Counting Device

(d) Power up Device

Answer: (b)

149. What is the octal equivalent of the decimal number (393)10?

(a) (611)8

(b) (610)8

(c) (601)8

(d) (444)8

Answer: (a)

150. What is the HexaDecimal equivalent of decimal number (456)10?

(a) (1C8)16

(b) (1D8)16

(c) (2C8)16

(d) (1A3)16

Answer: (a)

151. What is the Boolean expression of an Exclusive OR gate?

(a) C+C.D

(b) C′D+CD′

(c) C.D+D

(d) C′+D′

Answer: (b)

152. What is the alternative name of the gray code?

(a) Excess 3 code

(b) Reverse code

(c) Reflected code

(d) Error code

Answer: (c)

153. Dual-in-Line package is used for:

(a) Antenna fabrication
(b) Memory manufacturing
(c) Processor Design
(d) IC fabrication

Answer: (d)

154. What will be the output of the Schmitt trigger for the input of sinusoidal?

(a) Triangular Wave
(b) Sawtooth wave
(c) Sinusoidal wave
(d) Square wave

Answer: (d)

155. FET is used as a switching element for a logic family of _____.

(a) NMOS
(b) PMOS
(c) IMOS
(d) CMOS

Answer: (d)

156. Which among the following is the fastest A/D cor ter?

(a) Ramp type
(b) Dual slope type
(c) Single type
(d) Successive type

Answer: (d)

157. For a CE configuration if the current gain is 50 and Ib = 300mA, then what will be the Ic?

(a) 23.5mA
(b) 1.5mA
(c) 5mA
(d) 15A

Answer: (d)

158. What is the doping level of the base in the PNP Transistor?

(a) Thin and lightly doped
(b) Thick and lightly doped
(c) Thin and Heavily Doped
(d) Thick and heavily doped

Answer: (a)

159. Which biasing technique is used as the current Amplifier?

(a) Fixed Bias
(b) Emitter Feedback
(c) Self Bias
(d) Collector-Base Bias

Answer: (b)

160. Which coupling gives the best frequency response?

(a) RC coupling
(b) Transistor Coupling
(c) Direct coupling
(d) Indirect coupling

Answer: (c)

Discipline4

161. What is the approximate value of a stand-off voltage in a UJT?

(a) 0.15 V
(b) 1.5 V
(c) 0.5 V
(d) 10 V

Answer: (d)

162. For an Astable multivibrator, the duty cycle is _____.

(a) 60 percent
(b) 50 percent
(c) 70percent
(d) 10 percent

Answer: (b)

163. Which material is mostly used in spelter?

(a) Zinc
(b) Lead
(c) Tin
(d) Silver

Answer: (a)

164. High Pin Count Technology is used:

(a) Through hole Technology
(b) Surface mount Technology
(c) CAD design Technology
(d) Printed Circuit Board

Answer: (b)

165. Which of the following pin number is used to reset 8051?

(a) PIN 7
(b) PIN 15
(c) PIN 9
(d) PIN 11

Answer: (c)

166. External Access Pin for 8051 microcontrollers is _____.

(a) PIN 31
(b) PIN 30
(c) PIN 35
(d) PIN 34

Answer: (b)

167. Which type of software is a Compiler?

(a) Application Software
(b) System Software
(c) Organizational software
(d) Scientific Software

Answer: (b)

168. What is the full form of RISC?

(a) Reliable Instruction Set Computer
(b) Reduced Instruction Set Compiler
(c) Reliable Instruction Set Compiler
(d) Reduced Instruction Set Computer

Answer: (d)

169. What should be the resistance of the voltmeter?

(a) one
(b) Very Low
(c) Very High
(d) Zero

Answer: (c)

170. Where can we find a Limit Switch?

(a) AC
(b) Lift
(c) Washing Machine
(d) Microwave oven

Answer: (b)

171. Which interrupt has the highest priority in 8051 upon reset?

(a) INT1
(b) TF1
(c) TF0
(d) INT0

Answer: (d)

172. The memory size depends on the variable:

(a) Organization of Memory
(b) size of Decoding Unit
(c) size of Data Bus
(d) size of Address Bus

Answer: (d)

173. Which device is used for achieving seven-segment from BCD?

(a) Adder
(b) Multiplexer
(c) Encoder
(d) Decoder

Answer: (d)

174. What is the alternative name of one-sided Z trans m?

(a) Trilateral Z-transform
(b) Region of Convergence
(c) Bilateral Z-transform
(d) Unilateral Z-transform

Answer: (d)

175. OSI model consists of how many layers?

(a) 8
(b) 7
(c) 11
(d) 14

Answer: (b)

176. IPv4 addresses are _____ numbers that are typically displayed in dotted decimal notation.

(a) 16 bit
(b) 32 bit
(c) 8 bit
(d) 64 bit

Answer: (b)

177. In a walkie-talkie which data communication method is used?

(a) Simplex method
(b) Half Duplex method
(c) Full Duplex method
(d) Bi flex method

Answer: (b)

178. Which communication method is used to communicate between PC and PLC?

(a) Bi flex method
(b) Full Duplex method
(c) Simplex method
(d) Half Duplex method

Answer: (c)

179. What is the name of each output of a node in a Neural Network?

(a) Axon
(b) Node value
(c) Weights
(d) Neurons

Answer: (b)

180. In Neuron Network what is the function of an Axo

(a) Transmission
(b) Receptor
(c) Transmitter
(d) Synapses

Answer: (a)

Discipline5

181. Which of the following softwares is designed only for a specific task?

(a) Application Software
(b) Utility
(c) System Software
(d) User Interface

Answer: (a)

182. What is the alternative name of Parsing?

(a) Syntax Analysis
(b) Semantic Analysis
(c) Compilation
(d) Lexical Analysis

Answer: (a)

183. When is a signal called a power signal?

(a) Infinite average power
(b) zero average power
(c) Finite Signal power
(d) Finite average power

Answer: (d)

184. Which of the following system does not require feedback?

(a) Causal IIR System
(b) Non causal IIR System
(c) recursive system
(d) non recursive system

Answer: (d)

185. The small unit of Raster graphics is called:

(a) Paths
(b) Pitches
(c) Pixels
(d) Pallet

Answer: (c)

186. The small unit of vector graphics is called:

(a) Pitches
(b) Paths
(c) Pixels
(d) Pallet

Answer: (b)

187. The mechanism for a mobile call transmitted from one base station to another is called:

(a) BSC
(b) Roamer
(c) MSC
(d) Hand off

Answer: (d)

188. What is the full form of FBD?

(a) Functional Block Diagram
(b) Full Block diagram
(c) Functional Bill Diagram
(d) Frequency Block Diagram

Answer: (a)

189. Where is Relay generally used?

(a) For high-frequency device
(b) For low-frequency device
(c) To start a 3-phase motor
(d) For rectifier device

Answer: (b)

190. Where is DOL Starter used?

(a) For less than 5 HP
(b) For less than 2.5 HP
(c) For greater than 5 HP
(d) For greater than 7 HP

Answer: (a)

191. For Unique data transmission and reception which method is generally, followed?

(a) Use of Redundant bit
(b) Use of Pseudocode
(c) check sum
(d) parity checking

Answer: (b)

192. What is the energy gap of a diamond?

(a) About 5.5 eV
(b) About 2 eV
(c) About 17 eV
(d) About 27 eV

Answer: (a)

193. Which of the following is not a paramagnetic material?

(a) Al
(b) Pt
(c) Ca
(d) Co

Answer: (d)

194. What will be the 9's complement of (525)10?

(a) 525
(b) 949
(c) 747
(d) 474

Answer: (d)

195. Which is most expensive among ERAM, SRAM and DRAM?

(a) SRAM
(b) DRAM
(c) SAME
(d) ERAM

Answer: (a)

196. What are the characteristics of the Zener diode in the breakdown region?

(a) Constant current
(b) Constant resistance
(c) Becomes zero
(d) Constant voltage

Answer: (d)

197. What is the range of reverse current in a diode?

(a) kA
(b) mA
(c) µA
(d) A

Answer: (c)

198. What is the maximum efficiency of a full-wave re ier?

(a) 81.2 percent
(b) 40 percent
(c) 50 percent
(d) 90 percent

Answer: (a)

199. What is the reference voltage level for the audio system?

(a) 1.23 volts
(b) 5 volts
(c) 4 volts
(d) 6 volts

Answer: (a)

200. In which of the following cases impedance matching is excellent?

(a) RC coupling
(b) Direct Coupling
(c) Inductance Coupling
(d) Transformer coupling

Answer: (d)

Answer key

Answer key from the Delhi Subordinate Services Selection Board's official answer key for this sitting. "—" means the key gave none.

General Awareness

1	**(a)**	2	**(c)**	3	**(a)**	4	**(d)**	5	**(c)**	6	**(a)**
7	**(d)**	8	**(c)**	9	**(b)**	10	**(c)**	11	**(a)**	12	**(b)**
13	**(d)**	14	**(a)**	15	**(d)**	16	**(b)**	17	**(d)**	18	**(b)**
19	**(d)**	20	**(a)**								

General Ability

21	**(c)**	22	**(a)**	23	**(d)**	24	**(c)**	25	**(c)**	26	**(a)**
27	**(b)**	28	**(d)**	29	**(c)**	30	**(b)**	31	**(b)**	32	**(b)**
33	**(d)**	34	**(c)**								

Arithmetic Ability

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

General English

81	**(d)**	82	**(a)**	83	**(c)**	84	**(b)**	85	**(a)**	86	**(b)**
87	**(c)**	88	**(d)**	89	**(c)**	90	**(a)**	91	**(a)**	92	**(d)**
93	**(d)**	94	**(c)**	95	**(d)**	96	**(c)**	97	**(c)**	99	**(b)**
100	**(b)**										

Discipline1

101	**(b)**	102	**(c)**	103	**(d)**	104	**(c)**	105	**(c)**	106	**(a)**
107	**(a)**	108	**(d)**	109	**(c)**	110	**(d)**	111	**(a)**	112	**(b)**
113	**(d)**	114	**(a)**	115	**(a)**	116	**(b)**	117	**(d)**	118	**(d)**
119	**(b)**	120	**(a)**								

Discipline2

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

Discipline3

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

Discipline4

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

Discipline5

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