PREVIOUS YEAR PAPER

# DSSSB PGT Computer Science 2021 — 11 July 2021

DSSSB PGT · 11 July 2021

238 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: 62 (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 11 July 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-pgt/previous-year-papers/dsssb-pgt-2021-computer-science-11-jul/

## Mental Ability

1. Arrange the given words in the sequence in which they occur in the dictionary.
1. Creedal
2. Cremini
3. Cremate
4. Creator
5. Crested

(a) 41352
(b) 43125
(c) 41325
(d) 43152

**Answer: (c)**

2. A series is given with one term wrong. Se[illegible] wrong term from the given alternatives.
MORL, PKNI, SGJF, VCEC, YYBZ

(a) SGJF
(b) MORL
(c) YYBZ
(d) VCEC

**Answer: (d)**

3. In the following question, four letter pairs are given. The letters on left side of (–) is related to the letters on the right side of (–) with some Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.

(a) AJ – CL
(b) RF – TH
(c) KP – MN
(d) TL – VN

**Answer: (c)**

4. In the following question, select the related words from the given alternatives.
Saw : Carpenter :: Knife : ?

(a) Chef
(b) Restaurant
(c) Waiter
(d) Plate

**Answer: (a)**

5. In the following question, select the related letter pair from the given alternatives.
GRDP : YLYM :: ?

(a) TRAP : WIYZ
(b) MONT : CUVS
(c) LNJP : YRUR
(d) STRV : BBZY

**Answer: (c)**

6. In a certain code language, 'GRASP' is written as '11826920', 'MONT' is written as '7131214'. What is the code for 'TRIPY' in that code language?

(a) 2111897
(b) 2118197
(c) 2118917
(d) 21111897

**Answer: (a)**

7. Price of five cars A, L, J, M and T are cor[illegible]red. [illegible]ce of A is the least. No two cars have the same price. Price of J is less than T, L and M. [illegible]f neither T nor L is the highest. Price of T is less than L. Price of how many cars is less than the price of L?

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

**Answer: (b)**

8. A group of four teachers is to be formed from amongst seven teachers T1, T2, T3, T4, T5, T6 and T7. Either T1 or T2 should be selected with T5. T4 and T7 cannot be selected together. Either T3 or T6 should be selected with T2. Either T7 or T5 should be selected with T6. Who among the following may be selected?

(a) T3, T1, T4 and T6
(b) T2, T5, T6 and T7
(c) T2, T4, T5 and T6
(d) T1, T4, T5 and T7

**Answer: (c)**

9. A + B means A is father of B. A – B means A is son of B. A × B means A is mother of B. A ÷ B means A is sister of B. Which of the following means N is grandson of Q?

(a) J ÷ N + M – Q

(b) N – M – Q

(c) Q + M + N ÷ J

(d) P + J ÷ N – M ÷ Q

**Answer: (b)**

10. In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.
Statements:
I. Some W are K.
II. No J are W.
Conclusions:
I. Some J are W.
II. Some K are not J.

(a) Only conclusion I follows

(b) Only conclusion II follows

(c) Both conclusions I and II follows

(d) Neither conclusion follows

**Answer: (b)**

11. In the following question below are given some statements followed by some conclusions based on those statements. Taking the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.
Statements:
I. All cat are beautiful.
II. No peacock is cat.
Conclusions:
I. All beautiful are cat.
II. All peacock are beautiful.
III. All cat are peacock.

(a) Only conclusion I follows

(b) Neither conclusion follows

(c) Both conclusions II and III follows

(d) All conclusion follows

**Answer: (b)**

12. In the following question, four number pairs are given. The number on left side of (–) is related to the number of the right side of (–) with some Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.

(a) 47 – 121
(b) 53 – 88
(c) 83 – 121
(d) 79 – 172

**Answer: (d)**

13. If 49 @ 13 # 26 = 98 and 57 # 13 @ 247 = 3, then 46 @ 23 # 3 = ?

(a) 8
(b) 12
(c) 26
(d) 6

**Answer: (d)**

15. Identify the letter-cluster that does NOT belong to the following series.
BCDE, CEGI, DGIM, EIMQ, FKPU

(a) CEGI
(b) DGIM
(c) EIMQ
(d) FKPU

**Answer: (b)**

16. Poonam walks 20 km towards north. She turns right and walks 12 km. She turns left and walks 24 km. She turns right and walks 36 km. She rotates by an angle of 90 degrees in clockwise direction and walks 24 km. How far and in which direction is her starting point from the finishing point?

(a) 46 km, North-east
(b) 52 km, South-west
(c) 52 km, North-east
(d) 46 km, South-west

**Answer: (b)**

17. Shweta is facing towards north-east. She rotates by 45 degrees in anticlockwise direction. She again rotates by 135 degrees in clockwise direction. In which direction is she facing now?

(a) South-east
(b) South-west
(c) South
(d) West

**Answer: (a)**

## General Awareness

21. Mohiniattam belongs to which state?

(a) Kerala

(b) Goa

(c) Odisha

(d) Telangana

**Answer: (a)**

22. Which of the following monument(s) is/are located in Gujarat?
I. Dhoraji fort
II. Zinzuwada fort

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (c)**

23. Which of the following is NOT a Direct tax?
I. GST
II. Wealth tax
III. Gift tax

(a) Only I

(b) II and III

(c) I and II

(d) I, II and III

**Answer: (a)**

24. Which of the following statement(s) is/are NOT true regarding Marginal Standing Facility (MSF)?
I. The MSF rate plays no role in determining the corridor for the daily movement in the weighted average call money rate.
II. MSF rate has no effect on policy repo rate.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (c)**

25. No medium is required for transfer of heat by _____.

(a) conduction

(b) convection

(c) radiation

(d) both convection and radiation

**Answer: (c)**

26. Which of the following is an equation of uniform acceleration?

(a) v = u + at

(b) v + u = at

(c) va = ut

(d) v = ut + a

**Answer: (a)**

27. Which of the following pair is correct?
I. Amoeba – Protozoa
II. Bread Mold – Fungus

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (c)**

28. As the river enters the plain it twists and turns forming large bends known as _____.

(a) Levees

(b) Meander

(c) Ox bow

(d) U

**Answer: (b)**

29. Which of the following statement is correct?
I. Exosphere is the upper most layer of atm[illegible]sphere
II. Thermosphere extends between 80 – 400 [illegible]

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (c)**

30. Which of the following is a tributary of Ganga?
I. Chambal
II. Betwa
III. Gandak

(a) I and II

(b) II and III

(c) I and III

(d) I, II and III

**Answer: (d)**

31. Where did the inscriptions were written?

(a) Stone
(b) Palm leaf
(c) Paper
(d) Cloth

**Answer: (a)**

32. Which of the following statement(s) is/are correct?
I. The Nawab of Awadh was forced to give over half of his territory to the Company in 1807.
II. Third Anglo-Maratha war was fought during 1817-19.

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (b)**

33. _____ ruled in Delhi during 1206-1210.

(a) Raziyya
(b) Qutbuddin Aybak
(c) Anangapal
(d) Shamsuddin Iltutmish

**Answer: (b)**

34. Who has been named ICC Men's player of the m ch for March 2021?

(a) Rohit Sharma
(b) Rishabh Pant
(c) Bhuvaneshwar Kumar
(d) Virat Kohli

**Answer: (c)**

35. Who was written the book "What Went Wrong and Why"?

(a) Shashi Tharoor
(b) Kiran Bedi
(c) MJ Akbar
(d) Jaswant Singh

**Answer: (b)**

36. What type of missile is Phython 5 (developed by DRDO)?

(a) Air to Air
(b) Air to Land
(c) Land to Air
(d) Land to Land

**Answer: (a)**

37. Which article of Indian constitution is related with bar to interference by courts in electoral matter?

(a) 329
(b) 341
(c) 312
(d) 335

**Answer: (a)**

38. Which amendment of Indian constitution abolished the election tribunals?

(a) 16
(b) 19
(c) 11
(d) 25

**Answer: (b)**

39. Who won the ICC Under19 World Cup 2020?

(a) Bangladesh
(b) India
(c) Australia
(d) England

**Answer: (a)**

40. Which of the following pair of sportsperson – sp[illegible] is correct?
I. Shabbir Ali – Football
II. Mohammad Abbas – Boxing

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (a)**

## Arithmetic Ability

41. What is the value of 0.1 × 0.02 – 0.01 × 0.04?

(a) 0.0002
(b) 0.016
(c) 0.0016
(d) 0.002

**Answer: (c)**

42. If 1N3N is a four digit number and it is divisible by 11, then what is the value of N?
(a) 0
(b) 2
(c) 9
(d) 5
**Answer: (b)**

43. What is the product of Least Common Multiple and Highest Common Factor of 3200 and 1250?
(a) 2 1 × 5 2
(b) 2 5 × 5 3
(c) 2 8 × 5 4
(d) 2 8 × 5 6
**Answer: (d)**

46. What is the average of 168, 234, 286, 112 and 280?
(a) 216
(b) 220
(c) 210
(d) 206
**Answer: (a)**

47. If K percent of K percent of 4000 = 90, then what is the value of K?
(a) 15
(b) 30
(c) 7.5
(d) 22.5
**Answer: (a)**

48. If 87.5 percent of A = 714, then what is the value of 37.5 percent of A?
(a) 300
(b) 302
(c) 306
(d) 312
**Answer: (c)**

49. An article is sold for Rs. 3000 at a loss of 25 percent. What should be the selling price to gain 15 percent?
(a) 4400
(b) 4600
(c) 5000
(d) 4100
**Answer: (b)**

50. If P : Q = 3 : 2, then what is the value of (P + Q) : (P – Q)?

(a) 5 : 1

(b) 6 : 1

(c) 4 : 5

(d) 4 : 1

**Answer: (a)**

51. A bag contains 1 rupee, 50 paise and 25 paise coins. The value of 1 rupee, 50 paise and 25 paise coins are in the ratio of 5 : 2 : 3 respectively. If total number of coins is 420, then what will be the total value of all coins?

(a) Rs. 200

(b) Rs. 180

(c) Rs. 220

(d) Rs. 160

**Answer: (a)**

52. A sum becomes Rs. 16000 in 6 years on simple interest at the rate of 25 percent per annum. What is the total interest for the 6 years?

(a) Rs. 6000

(b) Rs. 9000

(c) Rs. 8400

(d) Rs. 9600

**Answer: (d)**

53. B walks at a speed of 9 km/hr and 9 hours after A starts, C starts on his cycle after him at the speed of 18 km/hr. How far from the starting point will C catch B?

(a) 144 km

(b) 162 km

(c) 198 km

(d) 236 km

**Answer: (b)**

54. Which of the following statement is correct?
I. If downstream and upstream of a boat are 12 km/hr and 6 km/hr respectively, then what is the speed of boat in still water is 9 km/hr.
II. Length of train is 1200 meters. If it can cross a stationary pole in 10 seconds, the speed of train of train is 43.2 km/hr.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (a)**

55. A and B together can do a work in 10 days. B and C together can do the same work in 12 days. If C alone can do the same work in 60 days, then in how many days can A alone do the same work?

(a) 30 days

(b) 45 days

(c) 20 days

(d) 60 days

**Answer: (a)**

57. Length, breadth and height of a cuboid are 30 cm, 30 cm and 15 cm respectively. What is the length of longest rod that can be placed in cuboid?

(a) 35 cm

(b) 45 cm

(c) 60 cm

(d) 55 cm

**Answer: (b)**

## General English

61. Find the part of the given sentence that has an error in it. If there is no error, choose 'No error'.
Learning to identify birds (1)/ by their songs is so(2)/ much fun as spotting them by sight (3)/.No error(4)

(a) Learning to identify birds

(b) by their songs is so

(c) much fun as spotting them by sight

(d) No error

**Answer: (b)**

62. Find the part of the given sentence that has an error in it. If there is no error, choose 'No error'.
In the Mahabharata, even a distinguished (1)/ warrior like Arjuna became depressed (2)/ at the very thought of waging war (3)/. No error (4)

(a) In the Mahabharata, even a distinguished

(b) warrior like Arjuna became depressed

(c) at the very thought of waging war

(d) No error

**Answer: (d)**

65. A sentence has been given with a blank to be filled with an appropriate word. Choose the correct alternative.
He was sorry for his _____ with the lady.

(a) freak

(b) misconduct

(c) miscreant

(d) fortune

**Answer: (b)**

66. A sentence has been given with a blank to be filled with an appropriate word/words. Choose the correct alternative.
_____ people face many issues with the advancement of technology.

(a) Oldest
(b) An old
(c) Older
(d) Old

**Answer: (c)**

67. Rearrange the parts of the sentence in correct order.
Two species
P: Coffea Arabica and
Q: C. canephora, supply almost R: of the coffee plant,
S: all of the world's consumption

(a) QPSR
(b) RPSQ
(c) QPRS
(d) RPQS

**Answer: (d)**

68. Rearrange the parts of the sentence in the correct order.
P: the Reformation and the ensuing wars of religion th[illegible]gh Q: based on contemporary political events
R: gave rise to many propagandistic and patriotic str[illegible] S: the 17th century, particularly in Protestant Germany and the Netherlands,

(a) PRSQ
(b) QRPS
(c) QRSP
(d) PSRQ

**Answer: (d)**

69. Choose the word that means the same as the given word.
Precious

(a) Simple
(b) Valuable
(c) Waste
(d) Necessary

**Answer: (b)**

70. Choose the word that is opposite in meaning to the given word.
Ascend

(a) Incline
(b) Upthurst
(c) Plunge
(d) Infamy

**Answer: (c)**

71. In the given question, four words are given out of which one word is correctly spelt. Choose the correctly spelt word.

(a) Retention
(b) Retantion
(c) Reetention
(d) Reteention

**Answer: (a)**

72. In the given question, four words are given out of which one word is incorrectly spelt. Choose the incorrectly spelt word.

(a) Creation
(b) Mistaken
(c) Tampoline
(d) Concussion

**Answer: (c)**

73. In the following question, out of the given four alternatives, select the alternative which best expresses the meaning of the Idiom/Phrase.
A bed of thorns

(a) A very uncomfortable situation
(b) To weep heavily, suddenly
(c) To rain heavily
(d) Unexpected misfortune

**Answer: (a)**

74. In the following question, out of the given four alternatives, select the alternative which best expresses the meaning of the Idiom/Phrase.
To upset the apple cart

(a) To harass somebody
(b) To throw all plans in confusion
(c) A clumsy person
(d) To be extremely enthusiastic over

**Answer: (b)**

75. Choose the word that can substitute the given sentence.
A collection of poems

(a) Anthology
(b) Ethology
(c) Entomology
(d) Palaeology

**Answer: (a)**

77. Why the functional role of bioluminescence in lower organisms is difficult to recognize?
(a) When oxygen is removed the bacteria is 17unable to survive.
(b) The glow of bacteria blows out as soon as the oxygen is removed.
(c) Bacteria couldn't find the sufficient energy in the absence of oxygen.
(d) Their luminescent capability wears off in the presence of oxygen.

**Answer: (b)**

78. Which of the following words best expresses the true meaning of the word 'confer'?
(a) Refuse
(b) Withhold
(c) Consult
(d) Hold

**Answer: (c)**

79. In which living entity, the bioluminescence is not known to exist?
(a) Fish
(b) Bacteria
(c) Fungi
(d) Birds

**Answer: (d)**

80. Which process is responsible for the emission of l uminescence?
(a) Conversion of radiant energy to chemical en y directly and virtually.
(b) Conversion of chemical energy to radiant er gy directly with a release of a very little heat.
(c) Conversion of chemical energy to ra gy indirectly with a lots of heat release.
(d) Conversion of radiant energy to chemical e ergy indirectly with a little heat release.

**Answer: (b)**

## Discipline1

101. What is the function of the program counter register?
(a) It holds the operand address
(b) It holds the address of current instruction.
(c) It holds the address of previous instruction
(d) It holds the address of next instruction

**Answer: (d)**

102. Which component of the computer is used to resolve the difference between CPU and the peripheral device?
(a) Memory unit
(b) Arithmetic Logic Unit
(c) Interface unit
(d) Control unit

**Answer: (c)**

103. What is the function of data input command in I/O command?

(a) Activate the peripheral and to inform it what to do

(b) To check status conditions in the interface and the peripheral

(c) It cause the interface to respond by transferring data from bus into one of its registers

(d) It cause the interface to respond by transferring data from one of its register to bus

**Answer: (d)**

104. When Bus Grant (BG) = 1 in direct memory access (DMA) transfer, then what function read line and write lines perform?

(a) Read line and write line act as input line allowing CPU to communicate with internal DMA register

(b) Read line act as input line and write line act as output line from DMA

(c) Read line act as output line and write line act as input line from DMA controller

(d) Read line and write line act as output lines from DMA controller

**Answer: (d)**

105. Arrange the following memory units in descending order.
Gigabyte, Megabyte, Exabyte, Zettabyte, Petabyte, Yottabyte

(a) Yottabyte, Zettabyte, Exabyte, Petabyte, Gigabyte, Megabyte

(b) Zettabyte, Yottabyte, Petabyte, Exabyte, Megabyte, Gigabyte

(c) Yottabyte, Exabyte, Petabyte, Zettabyte, Gigabyte, Megabyte

(d) Zettabyte, Petabyte, Yottabyte, Exabyte, Gigabyte, Megabyte

**Answer: (a)**

106. How many 16 K × 1 bit RAM chips are needed to provide a memory capacity of 128 K × 1 byte?

(a) 8

(b) 32

(c) 64

(d) 128

**Answer: (c)**

107. What is minuend value in the following? subtract (011100) from (1011100) ?
2 2

(a) (111000) 2

(b) (1011100) 2

(c) (100100) 2

(d) (100101) 2

**Answer: (b)**

108. Which component of computer act as nervous system?

(a) Arithmetic Logic Unit

(b) Input unit

(c) Control unit

(d) Storage unit

**Answer: (c)**

109. Which translator is used to convert assembly language to machine language?

(a) Assembler

(b) Compiler

(c) Interpreter

(d) Linker

**Answer: (a)**

110. When n bits are used to represent an operation (op) code, then how many different operations a computer can perform?

(a) n operations

(b) 2 × n operations

(c) 2 n operations

(d) 2/n operations

**Answer: (c)**

111. What is the value of product of (10110) and (10011) ?
2 2

(a) (110110101) 2

(b) (110100010) 2

(c) (110100001) 2

(d) (110100100) 2

**Answer: (b)**

112. What is the value of (3564) + (323232) .
8 4

(a) (1E62) 16

(b) (1662) 16

(c) (1762) 16

(d) (1562) 16

**Answer: (b)**

113. What is the 2's complement of (–28) in 16 bit representation?
10

(a) 1000000000011100

(b) 1111111111100011

(c) 1111111111100100

(d) 1111111111100101

**Answer: (c)**

114. What is 6′s complement of (1543) of the computer?
7

(a) (6132) 7
(b) (5132) 7
(c) (5123) 7
(d) (5432) 7

**Answer: (c)**

115. Information about each process in operating system is maintained by _____.

(a) scheduler
(b) process control block
(c) Central Processing Unit
(d) Program Counter

**Answer: (b)**

117. What is Throughput in process scheduling?

(a) Time required to complete a process
(b) Number of processes completed per unit time
(c) Time required by a process to respond
(d) Time required to abort a process

**Answer: (b)**

118. Which of the following is a function of an operat system?
I. Memory allocation
II. Resource utilization

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (c)**

119. Which one of these is not a condition for Resource Deadlock?

(a) Non-sharable resources
(b) Hold-and-wait
(c) Preemption
(d) Circular waits

**Answer: (c)**

## Discipline2

121. Which of the following statement is true about semaphore?
I. It can be Implemented using software II. It can be Implemented using hardware

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (c)**

122. A free list contains three memory areas of sizes 6 KB, 15 KB and 12 KB. The next three memory requests are for 10 KB, 2 KB and 14 KB.
Which of the memory allocation strategy that would be able to accommodate all the three requests?

(a) Worst Fit

(b) Best Fit

(c) Next Fit

(d) First Fit

**Answer: (b)**

123. Consider a main memory with 3 page frames in the following sequence of page reference 3, 4, 2, 3, 9, 1, 6, 3, 4, 9. What is the number of page fault using FIFO page replacement algorithm?

(a) 9

(b) 10

(c) 8

(d) 7

**Answer: (a)**

124. Which one of the following is not a cond[illegible] process state transition from running state to wait state?

(a) If a process request an Input/Output operation

(b) If a higher priority process arrived

(c) If a lower priority process arrived

(d) If a process waits for some action performed by another process

**Answer: (c)**

125. In a disk system with 100 cylinders, the request to access the cylinder occur in following sequence: 34, 4, 7, 19, 10, 83, 2, 6, 20, 15 Assuming that the head is currently at cylinder 50, then what is the time taken to satisfy all requests if it takes 1 second to move from one cylinder to another? (Shortest seek time first policy is used)

(a) 119 seconds

(b) 129 seconds

(c) 109 seconds

(d) 139 seconds

**Answer: (b)**

127. Which logical gate is known as Universal gate?

(a) AND

(b) Ex–OR

(c) NOT

(d) NAND

**Answer: (d)**

128. How many rows are there in a truth table having 'n' variables?

(a) 2n

(b) n 2

(c) log n 2

(d) 2 n

**Answer: (d)**

129. What is the representation of (4589) in Binary coded Decimal (BCD) form?
10

(a) 0100011010001001

(b) 0100010110001001

(c) 1001011000100100

(d) 1011001000100100

**Answer: (b)**

130. What is the full form of DCTL in logic family?

(a) Direct – coupled transistor logic

(b) Diode – coupled transistor logic

(c) Direct – circuit transistor logic

(d) Direct – circuit threshold logic

**Answer: (a)**

131. A product of sum (POS) form of logic function consist of only _____ while a sum of product (SOP) form of logic function consist of only _____.

(a) maxterms; maxterms

(b) miniterms; minitersm

(c) miniterms; maxterms

(d) maxterms; miniterms

**Answer: (d)**

132. A decimal to Binary Coded Encoder have _____ inputs and _____ outputs.

(a) 4; 4

(b) 10; 4

(c) 4; 10

(d) 2; 10

**Answer: (b)**

133. A logic circuit that accepts one input and distributes it over several output is known as _____.

(a) multiplexer

(b) encoder

(c) flip flop

(d) demultiplexer

**Answer: (d)**

135. The binary equivalent of (25.625) is _____.
10

(a) (10001.11) 2

(b) (11101.001) 2

(c) (11011.100) 2

(d) (11001.101) 2

**Answer: (d)**

136. What is the relation between N select inputs and M inputs lines in a multiplexer?

(a) 2 M = N

(b) 2 N = M

(c) 2M = N

(d) 2N = M

**Answer: (b)**

137. What is the correct answer of the given statements in the given order?
I. Gate in which output of logical gate is high when all inputs are high is _____ II. Half of byte is known as _____
III. A flip-flop whose output follows the input is triggered is _____

(a) NAND gate, bit, T – flip-flop

(b) OR gate, nibble, T – flip-flop

(c) AND gate, nibble, D – flip-flop

(d) NOR gate, byte, S – R flip-flop

**Answer: (c)**

138. Gray code representation of (27) is _____.
10

(a) 11011

(b) 11100

(c) 10110

(d) 11010

**Answer: (c)**

## Discipline3

141. Which of the following is NOT an attribute of good programming languages?

(a) Clarity, simplicity and unity
(b) Support for abstraction
(c) Ease of program verification
(d) Non portability

**Answer: (d)**

142. Which symbol is used to represent an input/output operation in the flow chart?

(a) Oval
(b) Circle
(c) Rectangle
(d) Parallelogram

**Answer: (d)**

143. Which of the following is false regarding the machine language?

(a) It is machine dependent
(b) It easier to modify
(c) It is made up of 1's and 0's
(d) It is difficult to program

**Answer: (b)**

144. When the rules of the programing language are not followed it gives _____ errors.

(a) Syntax
(b) Logical
(c) run time
(d) Printing

**Answer: (a)**

145. The speed of supercomputer is measured in _____.

(a) Floating – point operations per hour
(b) Floating – point operations per day
(c) Floating – point operations per second
(d) Floating – point operations per minute

**Answer: (c)**

146. What does the Form.StartPosition property represent in Visual Basic?

(a) It determine the end position of the form
(b) It determines the initial position of the form
(c) It determines the current position of the form
(d) It determines the next position of the form

**Answer: (b)**

147. Which of the following statement(s) is/are true about Break All Visual Basic toolbar buttons?
I. Delete the selected item
II. Pauses execution of your program

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (b)**

148. Which is not an acceptable control name in visual basic?

(a) txtAge
(b) btnCalc
(c) lblDistance
(d) txtFirst + Last Name

**Answer: (d)**

149. What is the full form of IDE in visual basic?

(a) Integration development environment
(b) Integrated development environment
(c) Integrated drive electronics
(d) Integrated development electronics

**Answer: (b)**

150. What is the shortcut key of Step Over in Visual sic?

(a) F9
(b) F10
(c) F6
(d) F11

**Answer: (b)**

152. Which one of the following is correct regarding Programming Languages?

(a) Procedural programming – Functions
(b) Object-oriented programming – Objects
(c) Functional programming – Logical unit
(d) Logical Programming – Function

**Answer: (b)**

153. In a modular programming approach problem is further divided into _____.

(a) question
(b) solution
(c) modules
(d) object

**Answer: (c)**

154. Which of the following statement(s) is/are correct about modular programming approach?
I. Ease of use
II. Reusability

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (c)**

155. How the object interact with each other in object oriented programming?

(a) By ringing
(b) By text
(c) By sending message
(d) By transmitting signal

**Answer: (c)**

156. What is the relation between object and class in an object oriented programming?

(a) Object is keyword of class
(b) Object is scope of class
(c) Object is instance of class
(d) Object is type of class

**Answer: (c)**

158. Which of the following is NOT an object oriente eature?

(a) Inheritance
(b) Abduction
(c) Abstraction
(d) Polymorphism

**Answer: (b)**

159. Which one is NOT a feature of Python language?

(a) High level language
(b) Interpreted language
(c) Case insensitive
(d) Portable

**Answer: (c)**

160. What is the meaning of >>> in Python Language?

(a) 3 left shift
(b) 3 right shift
(c) Interpreter is ready to take instruction
(d) Compiler is ready to take instruction

**Answer: (c)**

## Discipline4

161. The given declaration statement in Python Language belongs to which data type?
>>>Student ={'SUBJECT' : 'Compiler', 'Marks' : '50', 'Grade' : 'C'}

(a) Numbers
(b) Sequence
(c) Sets
(d) Dictionary

**Answer: (d)**

162. Which statement(s) is/are NOT true about the variables in Python Language:
I. Values of every variable can be changed once a variable has been created and assigned value.
II. Assignment statement is used to create a new variable and assign value.

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (a)**

163. What is the output of this code in Python Language:
>>> x = 125
>>> y = 13
>>> x // = y
>>> x

(a) 9
(b) 125/13
(c) 10
(d) 9.62

**Answer: (a)**

165. What is responsibility of event queue in event driven programming?

(a) Create new event
(b) Delete the event
(c) Make a sequence in which event is executed
(d) Change the event

**Answer: (c)**

167. What is output of the code in Python Language:
>>> str1 = 'All the Best'
>>> str1[–3]

(a) 'l'
(b) 'e'
(c) 'h'
(d) 'B'

**Answer: (b)**

168. A complete binary tree T have n leaf nodes. What is the number of nodes with degree of 2 in tree T?

(a) n

(b) n/2

(c) n – 1

(d) 2n

**Answer: (c)**

170. Which statement is true about condition of overflow in the circular Queue?
I. Front = 1 and Rear = N
II. Front = Rear + 1

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (c)**

171. The numbers 70, 50, 10, 80, 30, 60, 100, 90, 40, 20 are inserted in the given order in to a binary search tree. What is the in-order traversal sequence of the resultant binary search tree?

(a) 70, 50, 10, 80, 30, 60, 100, 90, 40, 20

(b) 100, 90, 80, 70, 60, 50, 40, 30, 20, 10

(c) 10, 30, 50, 70, 90, 20, 40, 60, 80, 100

(d) 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

**Answer: (d)**

172. What is balance factor of an AVL tree?

(a) $|h(T\,L)| \leq 1$

(b) $|h(T\,R)| \leq 1$

(c) $|h(T\,L) - h(T\,R)| \leq 1$

(d) $|h(T\,L) + h(T\,R)| \leq 1$

**Answer: (c)**

176. How many different binary search trees can be constructed with 6 different nodes?

(a) 64

(b) 128

(c) 32

(d) 132

**Answer: (d)**

177. Consider a sorted array of 10,00,000 elements. What is the maximum number of comparison required to find the location an item using binary search?

(a) 20

(b) 6

(c) 21

(d) 7

**Answer: (a)**

178. Using division method [n(k) = k mod m)], at which position 177 and 197 key values are stored in hash table when the size of hash table is 57?

(a) 6, 26

(b) 7, 27

(c) 26, 6

(d) 27, 7

**Answer: (a)**

179. Consider an array A[2 : 8, –4 : 1, 6 : 10]. Base address of array A is = 400 and size of each element = 2 word per memory cell. What is the address of A[5, –1, 8] in row major form?

(a) 628

(b) 614

(c) 630

(d) 626

**Answer: (a)**

180. Inorder and postorder traversal of a bi[illegible] tre[illegible]e given.
In: E, I, C, F, B, G, D, J, H, K
Post: I, E, F, C, G, J, K, H, D, B
What is the preorder traversal of the binary tree?

(a) B, C, E, I, F, D, G, H, J, K

(b) B, F, I, E, C, D, G, H, J, K

(c) B, C, E, I, F, D, G, H, K, J

(d) B, C, E, F, G, H, K, D, J, I

**Answer: (a)**

## Discipline5

181. Two way merge sort algorithm is used to sort the following elements in ascending order.
200, 470, 150, 80, 90, 40, 400, 300, 120, 70.
What is the order of these elements after second pass of the merge sort algorithm?

(a) 40, 70, 80, 90, 120, 150, 200, 300, 400, 470

(b) 200, 470, 80, 150, 40, 90, 300, 400, 70, 120

(c) 80, 150, 200, 470, 40, 90, 300, 400, 70, 120

(d) 40, 80, 90, 150, 200, 300, 400, 470, 70, 120

**Answer: (c)**

184. In C++, namespace defines a _____ for the identifiers that are used in a program.

(a) size

(b) scope

(c) syntax

(d) standard

**Answer: (b)**

185. In C++, operator '>>' is used along with object cin for reading input is known as _____.

(a) extraction

(b) output

(c) get in

(d) put to

**Answer: (a)**

186. Which of the following statement(s) is/are correct regarding void keyword in C++?
I. To specify the return type of a function when it is not returning any value.
II. To indicate an empty argument list to a function.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (c)**

188. Which of the following is specified by function prototype in C++?
I. Return Type
II. Function name
III. Number and types of argument

(a) I and II

(b) I and III

(c) II and III

(d) I, II and III

**Answer: (d)**

189. What is the symbol and associativity of the assignment operator in C++?

(a) =, left to right

(b) = =, left to right

(c) ®, right to left

(d) =, right to left

**Answer: (d)**

190. Which statement is correct about static member function in C++?
I. It can access to only other static members declared in the same class.
II. It cannot be called using the class name (instead of its objects)

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (a)**

191. Which statement is NOT correct regarding ternary operator in C++?

(a) Its symbol is ?:
(b) It is also known as conditional operator
(c) Operator overloading is possible in it
(d) It is similar to if else

**Answer: (c)**

192. By default in C++, the member of a class are _____, while, by default the member of structure are _____.

(a) private; private
(b) public; public
(c) private; public
(d) public; private

**Answer: (c)**

195. In C++, "Out-of-range-index" belong t_ _ _pe exception while keyboard interrupts are called _____ exceptions.

(a) synchronous; synchronous
(b) synchronous; asynchronous
(c) asynchronous; synchronous
(d) asynchronous; asynchronous

**Answer: (b)**

198. Which of the following statement is NOT correct regarding Virtual function in C++?
I. It must be a member of some class.
II. It is accessed by using object points.

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (d)**

199. What is join operation in Structure Query Language (SQL)?

(a) Join is an operation used to select group rows of a table that contains the same values in a specific column.

(b) Join is an operation which is used to combine two different data keys.

(c) Join is an operation used to combine rows from two or more tables based on one or more common fields between them.

(d) Join is an operation which work on a single row of a table and return a single value.

**Answer: (c)**

200. Which of the following is NOT a part of Data Definitions Language in Relational Database Management System?

(a) Create table

(b) Insert table

(c) Alter table

(d) Drop table

**Answer: (b)**

## Discipline6

202. Write the name of the relational algebra operation as per the given order of their notation.
Π, X , s

(a) projection, Cartesian product, division

(b) Projection, Cartesian product, select

(c) Intersection join, outer join, select

(d) Projection, outer join, select

**Answer: (b)**

203. Consider the following relation schema of students.
STUDENT (Rollno, Name, DOB, Marks, Gender)
Which of the given query is equivalent to this query in English? “Find the tuples of student having marks above 80”.

(a) s (STUDENT) Marks>80

(b) Π (STUDENT) Marks>80

(c) s (STUDENT) Marks<80

(d) Π (STUDENT) Marks<80

**Answer: (a)**

204. What is Denormalization in Relational Database Management System?

(a) Denormalization is the process of increasing redundancy to improve performance.

(b) Denormalization is used to decrease rredundancy in database.

(c) Denormalization is used to decrease the dependence on normal forms.

(d) Denormalization is used to develop a new schema in database.

**Answer: (a)**

205. Which of the following statement(s) is/are correct regarding Structured Query Language(SQL)?
I. The datatype FLOAT can hold numbers with decimal points.
II. The datatype BIGINT occupies I6 bytes.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (a)**

206. Which of the following statement is a part of Data Manipulative Language in Structured Query Language?

(a) Delete

(b) Alter table

(c) Copy

(d) Paste

**Answer: (a)**

207. What is the cardinality and degree of relation having 50 Tuples and 20 Attributes?

(a) Cardinality – 70 Degree – 30

(b) Cardinality – 20 Degree – 50

(c) Cardinality – 50 Degree – 20

(d) Cardinality – 50 Degree – 50

**Answer: (c)**

208. Which of the following statement(s) is/are correct regarding COUNT functions in Structured Query Language of Relational Database Management System?
I. COUNT(*) is used to count the number of values in a column.
II. COUNT() is used to count the number of rows of the query result.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (d)**

209. What is the shortcut key for right alignment of the paragraph in a Microsoft Word document?

(a) Ctrl + R

(b) Ctrl + L

(c) Ctrl + J

(d) Ctrl + E

**Answer: (a)**

210. Each Microsoft Excel file is also known as _____.

(a) Document

(b) Workbook

(c) Slide

(d) Sheet

**Answer: (b)**

211. Which of the following is the way to break a page in Microsoft Word?

(a) Pressing "Ctrl + Page Down"

(b) Double Clicking at the end of the page

(c) Pressing "Ctrl + Enter"

(d) Double Clicking at the beginning of the page

**Answer: (c)**

212. Microsoft PowerPoint helps to enhance our presentation with _____.

I. Pictures and charts

II. Sound effect

III. Tables

(a) I and II

(b) II and III

(c) I and III

(d) I, II and III

**Answer: (d)**

213. The selected text's font in Microsoft W[illegible] doc[illegible]ent will _____ on pressing "Ctrl + ]" keys.

(a) Increase by 1 points

(b) Increase by 2 points

(c) Decrease by 1 points

(d) Decrease by 2 points

**Answer: (a)**

214. Which key open a Goto window in Microsoft Excel?

(a) Alt + G

(b) Shift + G

(c) Tab + G

(d) Ctrl + G

**Answer: (d)**

215. In Microsoft PowerPoint, background image can be added for all the slides by editing which slide?

(a) First Slide

(b) Last Slide

(c) Any slide

(d) Slide Master

**Answer: (d)**

216. A collection of web pages is known as _____.

(a) website
(b) web server
(c) Web world
(d) Web tool

**Answer: (a)**

217. Which of the following is incorrect regarding user-friendly website?

(a) It should have faster loading time
(b) It should be easily accessible
(c) It should have browser consistency
(d) It should be Cluttered

**Answer: (d)**

218. Which of the following is false with reference to static website?

(a) Same content is loaded everytime the page is loaded
(b) It is loaded at a faster speed
(c) Content change at runtime
(d) No interaction

**Answer: (c)**

220. What is tag in HTML?

(a) It contains the address of the webpage.
(b) It contains the number of nested tags in the [illegible]ge.
(c) It contains information about the we[illegible]
(d) It contains the number of tags in the web page.

**Answer: (c)**

## Discipline7

221. How many forms can we have on a webpage at the maximum?

(a) 1
(b) 5
(c) 10
(d) No limit

**Answer: (d)**

222. What is image map in HTML?

(a) It is the backup copy of the image.
(b) It is a special image in which different area point to different locators on the web.
(c) It contains the properties of the image.
(d) It contains the number of pixels in the image.

**Answer: (b)**

223. Which of the following is not the file formats of graphics?

(a) GIF
(b) JPG
(c) PNG
(d) WAV

**Answer: (d)**

224. If Multiple bits per pixel are used to store an image, then the frame buffer is known as _____.

(a) bit map
(b) binary map
(c) pix map
(d) Image map

**Answer: (c)**

225. If an image has a height of 4 inches and an aspect ratio of 3 : 2, then what will be the width of the image?

(a) 3 inches
(b) 6 inches
(c) 4 inches
(d) 5.5 inches

**Answer: (b)**

226. What is the resolution of 2 inch × 2 inch image which has 512 × 512 pixels?

(a) 512 pixels per inch
(b) 256 pixels per inch
(c) 2048 pixels per inch
(d) 128 pixels per inch

**Answer: (b)**

227. Memory buffer which stores the image definition is known as _____.

(a) Pixel Buffer
(b) Frame Buffer
(c) Graphic Buffer
(d) Picture Buffer

**Answer: (b)**

228. Aspect ratio is the ratio of _____ to _____.

(a) width; height
(b) height; width
(c) diagonal; height
(d) height; diagonal

**Answer: (a)**

230. Which of the following is not a type of Network topology?

(a) Star Network

(b) Ring Network

(c) Hybrid Network

(d) Singleton Network

**Answer: (d)**

231. Which of the following statement(s) is/are true regarding OSI layers in computer networks?
I. The session layer provides means of establishing, maintaining and terminating a session between two end users.
II. Data Link layer sets up a logical path between the source and destination computer of the network.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (a)**

232. Which of the following statement(s) is/are true regarding Data Communication?
I. Half duplex communication is multidirectional communication.
II. Full duplex communication is bidirectional communication.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (b)**

233. Which of the following statement(s) is/are true regarding switching techniques in Data communication?
I. In circuit switching a dedicated path is identified between the sender and the receiver.
II. In packet switching each information to be transmitted between sender and receiver is broken down into smaller packets.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (c)**

235. Quicksort algorithm is based on which algorithm design technique?

(a) Greedy Algorithm

(b) Brute – Force

(c) Divide and Conquer

(d) Dynamic programing

**Answer: (c)**

237. The number of vertices in undirected graph with odd degree is always _____.

(a) odd number

(b) even number

(c) zero

(d) prime number

**Answer: (b)**

238. Which of the following is Not a NP Complete problem?

(a) The Clique problem

(b) Hamiltonian-Cycle problem

(c) The Travelling Salesman Problem

(d) Shortest Path Problem

**Answer: (d)**

239. Which of the following statement(s) is/are correct about red-black binary tree?
I. Every node is either red or black.
II. Every leaf node is red.
III. When a node is red and both its children are black.

(a) I and II

(b) I, II and III

(c) I and III

(d) III and II

**Answer: (c)**

240. Consider a max heap, represented by [illegible] arr
23, 17, 14, 6, 13, 10, 1, 5
If a value 20 is inserted into this heap, then what will be the new max heap

(a) 23, 17, 4, 6, 13, 10, 1, 5, 20

(b) 23, 20, 14, 17, 13, 10, 1, 5, 6

(c) 23, 20, 17, 14, 13, 10, 6, 5, 1

(d) 23, 17, 20, 14, 13, 10, 6, 51

**Answer: (b)**

## Discipline8

242. What is the full form of LISP Programming Language?

(a) Language Processing

(b) List Processing

(c) Least Processing

(d) Limited Processing

**Answer: (b)**

243. What is the full form of FOPL in aritficial intelligence?

(a) First order predicate logic
(b) File open predicate logic
(c) First operator performance logic
(d) File operator perforate logic

**Answer: (a)**

244. _____ act as a interface between a domain expert and an expert system.

(a) Language Editor
(b) K editor
(c) Intelligent editor
(d) Knowledge Editor

**Answer: (c)**

246. Which of the following is the correct sequence in Pattern Recognition process?

(a) Data Acquisition, Feature Extraction, Matching, Classification
(b) Feature Extraction, Data Acquisition, Matching, Classification
(c) Data Acquisition, Feature Extraction, Classification, Matching
(d) Matching, Data Acquisition, Feature Extraction, Classification

**Answer: (a)**

247. _____ is an act of disguising a communication fr an unknown source as being a trusted source.

(a) Spoofing
(b) Bullying
(c) Stealing
(d) Sandboxing

**Answer: (a)**

248. _____ is a way of providing control execution environment for extracted programs.

(a) Sandboxing
(b) Spoofing
(c) Honeypot
(d) Paycods

**Answer: (a)**

249. What is the other name of software updates?

(a) Patching
(b) Dropping
(c) Gaining
(d) Sandboxing

**Answer: (a)**

250. What are Honeypot systems?

(a) They are decoy system to attract attackers in order to learn their tactics

(b) They are antivirus programs and act as a firewall

(c) They are computer hardware having pre installed antivirus programs

(d) It is the other name of distributed systems

**Answer: (a)**

251. Which of the following is NOT an element of Database?

(a) Schema

(b) Relationships

(c) Constraints

(d) FRONTEND

**Answer: (d)**

252. Which of the following statement(s) is/are correct regarding single row functions in structured query language?
I. INSERT() is a numeric function.
II. ROUND() is a numeric function.
III. LENGTH() is a character function.

(a) Both I and II

(b) Both II and III

(c) Only III

(d) Both I and III

**Answer: (b)**

253. What is self join in Database Management System?

(a) In a self join, a table is joined to a number

(b) In a self-join, a table is joined to itself

(c) In a self join, a table is joined with a query

(d) In a self-join, two databases are joined

**Answer: (b)**

254. How many entities are associated in the quaternary relationship in E – R modelling?

(a) 2

(b) 3

(c) 4

(d) 5

**Answer: (c)**

255. Which one of the following is NOT a part of the ACID properties of database transaction?

(a) Atomicity

(b) Consistency

(c) Instance

(d) Durability

**Answer: (c)**

256. In Structured Query Language, what is the GROUP BY clause?

(a) It groups the table with same name in the database.

(b) It groups the rows together that contain the same values in a specific column.

(c) It combines data from two tables on specific conditions.

(d) It groups the columns together that contains the same values in a specific rows.

**Answer: (b)**

257. Which of the following is Not a database model?

(a) Network

(b) Relational

(c) Object-oriented

(d) Inheritence model

**Answer: (d)**

258. Which of the following statement(s) is/are correct regarding Data Dictionary in Database Management System?
I. Data Dictionary is a collection of definitions, rules and advisories of data designed to be used as a reference with the data warehouse.
II. Data Dictionary is the area of memory allocated for data storage.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (a)**

259. What is the full form of SSL in web deve[illegible]t?

(a) Secure Sockets Layer

(b) Secure Server Layout

(c) Security Socket Layout

(d) Secure Server Layer

**Answer: (a)**

260. What is Customer Relationship Management?

(a) Customer relationship management includes the methodologies, technology and capabilities that help an enterprise to manage customer relationships.

(b) Customer relationship management is a corporate level strategy which focuses on creating new customers.

(c) Customer relationship management is the process of planning, implementation and controlling the operations of the supply chain.

(d) Customer relationship management is the process of daily production and distribution.

**Answer: (a)**

## Discipline9

261. Which of the following statement(s) is/are true regarding cryptography?
I. Cipher text is encrypted text transformed from plain text using an encryption algorithm.
II. According to Kerchoff's principle, all algorithms must be private and only the keys are secret.

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (a)**

262. Which of the following is not a Cipher mode in Cryptography?

(a) Electronic Code Book Mode
(b) Cipher Feedback Mode
(c) Stem Cipher Mode
(d) Cipher Block Chaining Mode

**Answer: (c)**

263. _____ computing is a model in which components of a software system are shared among multiple computers.

(a) Distributed
(b) Abstraction
(c) Private
(d) Simulation

**Answer: (a)**

264. Which of the following is not a exam[illegible] Di[illegible]utive computing?

(a) LAN network
(b) Mobile network
(c) Parallel computing
(d) Internet

**Answer: (c)**

265. Which of the following is not an example of Simulation and Modeling?

(a) Video game
(b) Computer table
(c) Logical gates
(d) Flight simulator

**Answer: (b)**

266. _____ is an imitation of the dynamics of a real world process or system over time.

(a) Designing
(b) Cryptography
(c) Simulation
(d) Copying

**Answer: (c)**

267. What is a neuron in Neural Networks?

(a) A neuron is a small cell that receives electrochemical signals from various sources and transmit electrical impulses to other neurons.

(b) A neuron is a cell that send electromagnetic signals to axons.

(c) A neuron is a small cell that sends electric impulses to ions.

(d) A neuron is a cell which has the capability to predict the situation from past trends.

**Answer: (a)**

268. What is axon in Neural Networks?

(a) It is a long cylindrical connection that carries impulses from the neurons.

(b) It is a small cell used to perform basic logical operations.

(c) It is a small cell which contain electric signal.

(d) It is a collection of neurons.

**Answer: (a)**

269. _____ is loosely coupled system and _____ is tightly coupled system.

(a) Distributed processing; Uniprocessing

(b) Batch processing; Parallel processing

(c) Distributed processing; Parallel processing

(d) Uniprocessing; Real Processing

**Answer: (c)**

270. What is the full form of MISD?

(a) Multiple Interrupt stream and Single Data str n

(b) Multiple Instruction stream and sing eam

(c) Many Interrupt stream and single digital st m

(d) Many Instruction stream and Single Digital stream

**Answer: (b)**

271. Which of the following is NOT a Data MINING technique?

(a) Link Analysis

(b) Database Segmentation

(c) Predictive Modeling

(d) Evaluation

**Answer: (d)**

272. Which of the following is NOT a Data MINING Language?

(a) R. Language

(b) Weka

(c) Python

(d) BASIC

**Answer: (d)**

273. Sending incoming packet to every outgoing line except the one it arrived is known as _____.

(a) congestion
(b) scratching
(c) flooding
(d) message calling

**Answer: (c)**

274. The frequency which is used for transmission of signal from the satellite to earth station receive is known as _____.

(a) uplink frequency
(b) backlink frequency
(c) forward link frequency
(d) downlink frequency

**Answer: (d)**

275. Routing algorithm which do not base their routing decisions on measurements or estimates of the current traffic and topology belongs to which category?

(a) Adaptive algorithm
(b) Greedy algorithm
(c) Back propagation algorithm
(d) Non-adaptive algorithm

**Answer: (d)**

276. Runge – Kutta method is used for _____.

(a) integration
(b) root finding
(c) ordinary differential equation
(d) solution of system of linear equation

**Answer: (c)**

278. _____ is the science of computers dealing with languages?

(a) Distributed computing
(b) Machine language
(c) Assembly Language
(d) Computational linguistics

**Answer: (d)**

279. An image may be defined as a 2-dimmensional function f(x, y) where x and y are _____ and the amplitude of the function is called _____ of the image at the point (x, y)

(a) intensity; coordinates
(b) intensity; brightness
(c) coordinates; intensity
(d) brightness; coordinates

**Answer: (c)**

280. The process which digitized amplitude value of the image during digital conversion of an image is known as _____.

(a) sampling

(b) Quantization

(c) filtering

(d) extraction

**Answer: (b)**

## Teaching Methodology

281. 'Preparing any project in science/mathematics may give pleasure to the pupil as result of which he/she is motivated to undertake similar activities on his/her own.' This given statement describes which of the following type(s) of motivation?
I. Intrinsic Motivation
II. Extrinsic Motivation

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (a)**

282. Which of the following statement(s) is/are not co[illegible]ct?
I. Conditioning of elicited behaviours defines classica[illegible]onditioning.
II. Conditioning of emitted behaviours defines opera[illegible]conditioning.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (d)**

283. Which of the following is/are those medium(s) by which value education can be provided to the students?
I. Skits and Dramas
II. Morning Assembly
III. Compulsory Subject

(a) II and III

(b) Only III

(c) I and II

(d) I, II and III

**Answer: (d)**

284. _____ and _____ are planned and organized for improving the power of thinking.

(a) Curriculum; instructions

(b) Charts; teaching

(c) Teaching; instruction

(d) Evaluation; instructions

**Answer: (c)**

285. Which of the following is not a assistive device used for children with Visual Impairment?

(a) Braille

(b) Hearing aid

(c) Arithmetic Frames

(d) Abacus

**Answer: (b)**

286. Ideas for dramas may come from which of the following sources?
I. The imagination
II. The environment
III. History/Literature
IV. Movies

(a) II, III and IV

(b) I and IV

(c) III and IV

(d) I, II, III and IV

**Answer: (d)**

287. If a teacher is teaching topic 'Forts' to the students, then a teacher can perform introductory activities by making documentation cards indicating which of the following?
I. Name of Historical buildings.
II. Drawing of unique architectural features of the building such as pillars/domes etc.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (c)**

288. Which of the following statement(s) is/are not correct about 'Facilitation' in art education?
I. Helping the child by giving free access to handling musical instruments with a caution for care.
II. Providing lot of art material for helping the child to choose and pick and innovate.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (d)**

289. Which of the following is/are not the method(s) of assessment in Language Learning?
I. Oral Test
II. Written Test

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (d)**

290. While teaching a children how to read, which of the following things need to be kept in mind?
I. The material used must be meaningful and of the level of the child.
II. The material should be in a language that the child is familiar with.

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (c)**

291. Which of the following is/are the role(s) of teachers in the Theme Based Integrated Early Childhood and Care Education Programme?
I. Observe children to identify their interests, needs and capabilities and the pace of their development.
II. Create nurturing and positive relationships in the cl ,room.

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

**Answer: (c)**

292. Which of the following is/are the major type(s) of play for a child?
I. Constructive play
II. Functional play
III. Dramatic or pretend play

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

**Answer: (d)**

293. Which of the following Pre – number concept(s) can be developed in children during the pre school years?
I. Matching
II. Sorting
III. Comparing

(a) I and III

(b) I and II

(c) Only I

(d) I, II and III

**Answer: (d)**

294. In which stage of cognitive development of Piaget's theory, a child understands and carry out calculations involving proportions?

(a) Pre – operation Period

(b) Concrete Operation Period

(c) Formal Operation Period

(d) Sensory Motor Period

**Answer: (c)**

295. 'When we study history, then we study the history of many other social science subjects like economic history, political history, history of psychology etc'.
This statement given above shows that social science subjects are _____ in nature.
I. independent
II. interdisciplinary
III. interrelated

(a) I and III

(b) Only II

(c) Only III

(d) II and III

**Answer: (d)**

296. Which of the following can help a teacher to make teaching – learning process participatory in social science?
I. By arranging debate, discussions on emerging social issues for example: dowry, population growth etc.
II. By teaching students that how to cooperate with each other.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (c)**

297. Scientific argument involves three components. Which of the following are these components?
I. Hypothesis
II. Predictions
III. The evidence

(a) I and III

(b) II and III

(c) I and II

(d) I, II and III

**Answer: (d)**

298. _____ addresses to the principle that knowledge arises from experience and evidence gathered specifically using senses.
I. Skepticism
II. Empiricism

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**Answer: (b)**

299. The syllabus of Environment studies for class III to V is woven around the 6 interconnected themes. Which of the following is/are among those themes?
I. Shelter
II. Water
III. Food

(a) I and III

(b) II and III

(c) Only III

(d) I, II and III

**Answer: (d)**

300. Which of the following is/are the instructional objective(s) of mathematics?
I. To apply addition of two digit numbers in solving problems of daily life.
II. To apply formula of direct variable to solve simple problems of day to day life.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

**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 | **(c)** | 2 | **(d)** | 3 | **(c)** | 4 | **(a)** | 5 | **(c)** | 6 | **(a)** |
| 7 | **(b)** | 8 | **(c)** | 9 | **(b)** | 10 | **(b)** | 11 | **(b)** | 12 | **(d)** |
| 13 | **(d)** | 15 | **(b)** | 16 | **(b)** | 17 | **(a)** | | | | |

## General Awareness

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

## Arithmetic Ability

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

## General English

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 61 | **(b)** | 62 | **(d)** | 65 | **(b)** | 66 | **(c)** | 67 | **(d)** | 68 | **(d)** |
| 69 | **(b)** | 70 | **(c)** | 71 | **(a)** | 72 | **(c)** | 73 | **(a)** | 74 | **(b)** |
| 75 | **(a)** | 77 | **(b)** | 78 | **(c)** | 79 | **(d)** | 80 | **(b)** | | |

## Discipline1

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 101 | **(d)** | 102 | **(c)** | 103 | **(d)** | 104 | [illegible] | 05 | **(a)** | 106 | **(c)** |
| 107 | **(b)** | 108 | **(c)** | 109 | **(a)** | 110 | **(c)** | 111 | **(b)** | 112 | **(b)** |
| 113 | **(c)** | 114 | **(c)** | 115 | **(b)** | 117 | **(b)** | 118 | **(c)** | 119 | **(c)** |

## Discipline2

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 121 | **(c)** | 122 | **(b)** | 123 | **(a)** | 124 | **(c)** | 125 | **(b)** | 127 | **(d)** |
| 128 | **(d)** | 129 | **(b)** | 130 | **(a)** | 131 | **(d)** | 132 | **(b)** | 133 | **(d)** |
| 135 | **(d)** | 136 | **(b)** | 137 | **(c)** | 138 | **(c)** | | | | |

## Discipline3

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

## Discipline4

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 161 | **(d)** | 162 | **(a)** | 163 | **(a)** | 165 | **(c)** | 167 | **(b)** | 168 | **(c)** |
| 170 | **(c)** | 171 | **(d)** | 172 | **(c)** | 176 | **(d)** | 177 | **(a)** | 178 | **(a)** |
| 179 | **(a)** | 180 | **(a)** | | | | | | | | |

## Discipline5

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 181 | **(c)** | 184 | **(b)** | 185 | **(a)** | 186 | **(c)** | 188 | **(d)** | 189 | **(d)** |
| 190 | **(a)** | 191 | **(c)** | 192 | **(c)** | 195 | **(b)** | 198 | **(d)** | 199 | **(c)** |
| 200 | **(b)** | | | | | | | | | | |

## Discipline6

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 202 | **(b)** | 203 | **(a)** | 204 | **(a)** | 205 | **(a)** | 206 | **(a)** | 207 | **(c)** |
| 208 | **(d)** | 209 | **(a)** | 210 | **(b)** | 211 | **(c)** | 212 | **(d)** | 213 | **(a)** |
| 214 | **(d)** | 215 | **(d)** | 216 | **(a)** | 217 | **(d)** | 218 | **(c)** | 220 | **(c)** |

## Discipline7

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 221 | **(d)** | 222 | **(b)** | 223 | **(d)** | 224 | **(c)** | 225 | **(b)** | 226 | **(b)** |
| 227 | **(b)** | 228 | **(a)** | 230 | **(d)** | 231 | **(a)** | 232 | **(b)** | 233 | **(c)** |
| 235 | **(c)** | 237 | **(b)** | 238 | **(d)** | 239 | **(c)** | 240 | **(b)** | | |

## Discipline8

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

## Discipline9

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 261 | **(a)** | 262 | **(c)** | 263 | **(a)** | 264 | **(c)** | 265 | **(b)** | 266 | **(c)** |
| 267 | **(a)** | 268 | **(a)** | 269 | **(c)** | 270 | **(b)** | 271 | **(d)** | 272 | **(d)** |
| 273 | **(c)** | 274 | **(d)** | 275 | **(d)** | 276 | **(c)** | 278 | **(d)** | 279 | **(c)** |
| 280 | **(b)** | | | | | | | | | | |

## Teaching Methodology

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 281 | **(a)** | 282 | **(d)** | 283 | **(d)** | 284 | **(c)** | [illegible] | **(b)** | 286 | **(d)** |
| 287 | **(c)** | 288 | **(d)** | 289 | **(d)** | 290 | **(c)** | 291 | **(c)** | 292 | **(d)** |
| [illegible]3 | **(d)** | 294 | **(c)** | 295 | **(d)** | 296 | **(c)** | 297 | **(d)** | 298 | **(b)** |
| 299 | **(d)** | 300 | [illegible] | | | | | | | | |