## DENA BANK SPECIALIST OFFICER EXAM 07

## Quantitative Aptitude

Directions (1-5) :What approximate value will come in place of the question mark (?) in the following questions ? (You are not expected to calculate the exact value.)

1. $(341789+265108)+(8936-3578)=$ ?
a) 150
b) 115
c) 135
d) 100
e) 125
2. $(\sqrt{7921}-\sqrt{2070.25}) \times \frac{1}{4}=$ ?
a) 11
b) 14
c) 15
d) 9
e) 13
3. $(47 \%$ of $1442-36 \%$ of 1412$) \div 63=$ ?
a) 4
b) 5
c) 3
b) 5
e) 1
4. $1595 \div 25 \times 36.5=$ ?
a) 2459
b) 2329
c) 2359
d) 2429
e) 2349
5. $29 \%$ of $725=60 \%$ of $315+$ ?
a) 28
b) 30
c) 15
d) 18
e) 22

Directions (6-10): What will come in place of the question mark (?) in the following number series ?
6. 1011141926 ?
a) 40
b) 25
c) 39
d) 27
e) None of these
7. 510152025 ?
a) 35
b) 40
c) 25
d) 20
e) None of these
8. 1598798398198 ? 48
a) 56
b) 74
c) 68
d) 98
e) None of these
9. 319115691 ? 24883
a) 6923
b) 4147
c) 2719
d) 1463
e) None of these
10. 51020 ? 80160
a) 30
b) 60
c) 40
d) 50
e) None of these

Directions (11-25) :What will come in place of the question mark (?) in the following questions ?
11. $\frac{1}{5}$ of $\frac{1}{2}$ of $\frac{1}{3}$ of $?=19$
a) 570
b) 750
c) 273
d) 372
e) None of these
12. $17 \%$ of $95=$ ?
a) 18.93
b) 16.15
c) 61
d) 15.16
e) None of these
13. ? \% of $220=99$
a) 45
b) 55
c) 35
d) 40
e) None of these
14. $\sqrt{\sqrt{625}}+\sqrt{576}=$ ?
a) 49
b) 8
c) 54
d) 7
e) None of these
15. $99.99+666.66=$ ?
a) 728.59
b) 766
c) 766.65
d) 676.95
e) None of these
16. A sum of money fetches Rs. 240/-as simple interest .at the ratio of 5 p.c.p.a. after 6 years. What is the principal amount?
a) Rs. 200/-
b) Rs. 400/-
c) Rs. 800/-
d) Rs. 1,200/-
e) None of these
17. A sum of money is to be divided among $Z, X, Y$ in the respective proportion of $4: 5: 6$ and another sum to be divided between $A$ and $B$ equally. If $Z$ got Rs. $2,000 /$ - less than $A$, how much did $X$ get?
a) Rs. 10,000/-
b) Rs. 5,000/-
c) Rs. 4,000/-
d) Cannot be determined
e) None of these
18. Lalit bought a book for Rs. 63/after getting $30 \%$ discount on the printed price. What was the printed price?
a) Rs. 90/-
b) Rs. 110/-
c) Rs. 81.90/-
d) Cannot be determined
e) None of these
19. The average of 3 numbers is 16 . One of these-numbers is 14 . What is the average of the remaining two numbers ?
a) 17
b) 14
c) 15
d) Cannot be determined
e) None of these
20. Sixteen men can complete a work in twelve days. In how many days will twenty-four men complete the same work?
a) 4
b) 8
c) 6
d) 3
e) None of these
21. If 20 per cent of a number is 12 , what will be two-third of that number?
a) 40
b) 20
c) 80
d) 60
e) None of these
22. What is the area of a circle of diameter of 28 cm ?
a) 2464 .sq. cm.
b) $616 \mathrm{sq} . \mathrm{cm}$.
c) $88 \mathrm{sq} . \mathrm{cm}$.
d) $176 \mathrm{sq} . \mathrm{cm}$.
e) None of these
23. In a box, there are 10 black and 5 red balls. If one ball is picked up randomly, what is the probability that it is a black ball?
a) $\frac{1}{2}$
b) $\frac{1}{3}$
c) $\frac{2}{3}$
d) $\frac{4}{5}$
e) $\frac{1}{4}$
24. What would be the diagonal of a square whose area is $25 \mathrm{sq} . \mathrm{cm}$.?
a) 7
b) $\sqrt{60}$
c) 9
d) Cannot be determined
e) None of these
25. If two-third of one-fourth of one third of a number is 6 , what is the number?
a) 108
b) 144
c) 96
d) 78
e) None of these

Directions (26-30) : Study the following information carefully to answer the questions.
The teachers colony has 2800 members, out o\{ which 650 members read only English newspaper. 550 members read only Hindi newspaper and 450 members read only Marathi newspaper. The number of members reading all the 3 newspapers is 100. Members reading Hindi as well as English newspaper are 200. 400 members read Hindi as well as Marathi newspaper and 300 members read English as well as Marathi newspaper.
26. How many members read at least 2 newspapers?
a) 600
b) 800
c) 500
d) 1000
e) None of these
27. How many members read only one newspaper?
a) 1560
b) 1650
c) 1640
d) 1540
e) None of these
28. Find the number of members reading no newspaper.
a) 150
b) 460
c) 550
d) 750
e) None of these
29. Find the difference between number of members reading English as well as Marathi newspaper and the number of members reading English as well as Hindi newspaper.
a) 300
b) 200
c) 100
d) 50
e) None of these
30. Find the number of members reading Hindi newspaper.
a) 750
b) 980
c) 1000
d) 1020
e) None of these

Directions (31-35) : Each of the questions below consists of a question and two statements numbered I and II are given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.
Read both the statements and -
Give answer a) if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.
Give answer b) if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.
Give answer c) if the data either in Statement I alone or in Statement II alone are sufficient to answer the question.
Give answer d) if the data in both the Statements I and II are not sufficient to answer the question.
Give answer e) if the data in both the Statements I and II together are necessary to answer the question.
31. What is the ratio of the total number of girls to the total number of boys in the school?
I. The ratio of the total number of boys to the total number of girls, last year was 4:5.
II. There are 3500 students in the school out of which $60 \%$ are boys.
32. What is the ratio of the number of freshers to the number of seniors in a college?
I. The ratio of males and females in the college is $2: 3$.
II. There are 1125 female freshers in the college.
33. What is Nidhi's age?
I. Nidhi is 3 times younger to Rani.
II. Sureklia is twice the age of Rani and the sum of their ages is 72 .
34. What is Mr. Mehta's present income?
I. Mr. Mehta's income increases by $10 \%$ every year.
II. His income will increase by Rs. 2,500/- this year.
35. What is the speed of the bus?
I. The bus covers a distance of 80 kms . in 5 hrs .
II. The bus covers a distance of 16 kms . in 10 hrs .

Directions (36-40) : Study the following table and answer the questions given below.
EXPORT OF ELECTRONIC GOODS FROM INDIA (IN Rs. CRORES)

| YEAR | TOTAL EXPORTS | ELECTRONIC <br> GOODS |
| :---: | :---: | :---: |
| 2001 | 5,143 | 552 |
| 2002 | 5,404 | 624 |
| 2003 | 5,426 | 717 |
| 2004 | 5,999 | 653 |

36. The fall in electronic goods exports in 2004 from 2003 was nearly-
a) $20 \%$
b) $15 \%$
c) $9 \%$
d) $12 \%$
e) $16 \%$
37. Percentage growth of electronic goods exports in the period of 2002 to 2003 exceeded the percentage growth of the total exports over the same period approximately by--
a) 13.5
b) 12.5
c) 15.5
d) 11.5
e) 14.5
38. If the electronic goods are not exported in the year 2002, then what are the total exports of that year?
a) 4770
b) 4780
c) 4790
d) 4760
e) None of these
39. Over the 4 years period from 2001 to 2004, the electronic exports rose by nearly-
a) $16.3 \%$
b) $15.3 \%$
c) $14.3 \%$
d) $18.3 \%$
e) $20.3 \%$
40. Approximately, what per cent of the total exports were electronic goods in 2003 ?
a) $13 \%$
b) $19 \%$
c) $21 \%$
d) $23 \%$
e) None of these

Directions (41-45) : Study the following Pie-chart carefully and answer the questions given below :
Statistics of a Survey on the food item's preference of the people, conducted on a sample of $\mathbf{3 0 , 0 0 0}$ people.

41. Out of the total sample population, how many people have given preference for fish?
a) 1600
b) 1800
c) 1500
d) 1400
e) None of these
42. What is the total number of people preferring vegetables and those preferring sprouts?
a) 11,900
b) 12,300
c) 12,500
d) 11,500
e) None of these
43. People preferring fruits are approximately what percent of the people preferring vegetables?
a) 48
b) 35
c) 46
d) 37
e) 30
44. What is the difference between the total number of people preferring meat to total number of people preferring fish?
a) 150
b) 200
c) 300
d) 350
e) None of these
45. What is the respective ratio of the number of people preferring meat to the number of people preferring salad?
a) $2: 5$
b) $3: 5$
c) $2: 3$
d) $4: 3$
e) None of these

Directions (46-50) : Study the following graph carefully and answer the questions given below.
PREFERENCES OF PEOPLE IN USING DIFFERENT MODES OF TRANSPORT OVER THE YEARS

46. The number of people preferring to travel by rail in 2004, was how many millions than the number of people preferring to travel by rail in 1999?
a) 70
b) 45
c) 75
d) 50
e) None of these
47. What is the respective ratio of the number of people preferring to travel by bus to the number of people preferring to travel by rail in the year 2002?
a) $15: 11$
b) $9: 7$
c) $7: 9$
d) $11: 15$
e) None of these
48. From 1999 to 2004, the total number of people who preferred to travel by rail, was approximately how many millions?
a) 1300
b) 1500
c) 1600
d) 1700
e) None of these
49. In 2001, the people preferring to travel by bus represented approximately what per cent of the people preferring to travel by buses, rail and airlines together in that year?
a) $65 \%$
b) $35 \%$
c) $55 \%$
d) $75 \%$
e) $45 \%$
50. In the year 2003, if all the airlines reduced their rates by $50 \%$ and $50 \%$ of the people who preferred to travel by rail, now preferred airlines. Approximately how many millions of people prefer to travel by air?
a) 290
b) 313
c) 330
d) 300
e) 325

## REASONING ABILITY

51. In a certain code BREAKDOWN is written as NWODKAERB. How is TRIANGLES written in that code?
a) SELGNTRIA
b) AIRTNSELG
c) SELGNAIRT
d) AIRTGNSEL
e) None of these
52. In a certain code BREAK is written as 51342 and KITE is written as 2796 . How is RIB written in that code?
a) 175
b) 176
c) 185
d) 135
e) None of these
53. The position of the first and the fifth digits in the number 91256784 are interchanged. Similarly the positions of the second and the sixth digits are interchanged and so on. Which of the following will be the fourth digit from the right after the rearrangement?
a) 9
b) 7
c) 1
d) 8
e) None of these
54. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
a) Dog
b) Cat
c) Horse
d) Buffalo
e) Zebra
55. How many such pairs of letters are there in the word CREDIBLE each of which has as many letters between them in the word as in the English alphabet?
a) None
b) One
c) Two
d) Three
e) More than three
56. What should come in place of the question mark (?) in the letter series given below?

PRIMARILY RIMARILY RIMARIL?
a) IMAR
b) RIMARI
c) IMARIL
d) RIMA
e) None of these
57. Rohan walked 50 metres towards East, took a right turn and walked 30 metres. Towards which direction is he now from his starting position?
a) South-West
b) North-East
c) North-West
d) South-East
e) None of these
58. Pointing to Veena, Mohan said "She is the daughter of my grandfather's only daughter." How is Mohan related to Veena?
a) Brother
b) Cousin
c) Uncle
d) Data inadequate
e) None of these
59. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
a) Apple
b) Orange
c) Papaya
d) Rose
e) Guava
60. Four of the following five are alike in a certain way and so form a group. Which is the one that does both not belong to that group?
a) 26
b) 10
c) 48
d) 170
e) 290

Directions (61-68) : In the following questions .the symbols @, \#, \$, \% and• \& are used with different meanings as follows
' $P$ @ $Q$ ' means ' $P$ is neither smaller than nor equal to $Q$ '
'P \# Q' means ' $P$ is not greater than $Q$ '.
' $P \$ Q$ ' means ' $P$ is not smaller than $Q$ '.
' $P$ \% Q' means ' $P$ is neither greater than nor smaller than $Q$ '.
' $P$ \& $Q$ ' means ' $P$ is neither greater than nor equal to $Q$ '.
In ea.ch of the following questions assuming the given statements to be true, find out which of 'the two conclusions I and II given below them is/are definitely true.
Give answer a) if only Conclusion I is true.
Give answer b) if only conclusion II is true.
Give answer c) if either conclusion I or conclusion II is true.
Give answer d) it neither conclusion I nor conclusion II is true.
Give answer e) if conclusions I and II are true.
61. D \& T, R \# T, R \$ M
I. $M \& T$
II. M \% T
62. E\% H, H \$ M, M \# Q
I. H\$ Q
II. E \$ M
63. F\$D, H\#M, M\%D
I. F \$ H
II. F @ H
64. G \# H, H \$ K, K@ M
l. M\#G
II. G \& M
65. R \& M, M \# L, L \$ Q
I. M \% Q
II. M @ Q
66. F \# R, Q \$ R, Q \& M
I. F \# Q
II. R \& M
67. S \#A, S@ T, L \& T
I. L \& A
II. S @ L
68. G \$ J, J @ K, K \% N
I. G @ N
II. G \% N

Directions (69-75) : These questions are based on the following arrangement of numerals, symbols and letters.
WT15MK\%L\$37FEB\#1G*A © @ JUV24
69. If the first ten elements in the arrangement are reversed, which element will be third to the left of eleventh element from the left?
a) D
b) $\%$
c) K
d) I
e) None of these
70. If all the vowels are dropped from the arrangement, which element will be fifth to the right of thirteenth element from the right?
a) H
b) G
c) A
d) 1
e) None of these
71. How many such vowels are there in the above arrangement which are immediately preceded as well as immediately followed by a consonant?
a) None
b) One
c) Two
d) Three
e) None of these
72. Which element is exactly, midway between the eight element from the left and the tenth element from the right?
a) E
b) 7
c) $B$
d) \#
e) None of these
73. If KL: \$7, then 81 : ?
a) GA
b) HC
c) GH
d) © $J$
e) None of these
74. How many such symbols are there in the above arrangement each of which is immediately followed by a numeral and also immediately preceded by a letter?
a) None
b) Two
c) Three
d) One
e) None of these
75. Four of the following five are alike in a certain way on the basis of their position in the above arrangement and so form a group. Which is the one that does not belong to the group?
a) D5W
b) L3K
c) E\#7
d) $H \subset G$
e) U2@
76. 'Go' is related to 'Come' in the same way as 'High' is related to
a) Above
b) Low
c) Jump
d) Stand
e) None of these
77. In a row of boys Mohan is twentieth from the left end and twelfth from the right end. Pratap is fifteenth from the right end in that row. How many boys are there between Mohan and Pratap?
a) 4
b) 2
c) 3
d) 5
e) None of these
78. 'Petal' is related to 'Flower' in the same way as 'Player' is related to
a) Games
b) Sports
c) Team
d) Competition
e) None of these
79. How many such digits are there in the number 52137864 each of which is as far away from the beginning of the number as when they are arranged in descending order?
a) None
b) One
c) Two
d) Three
e) More than three

Directions (80-84) : Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and-
Give answer a) if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.
Give answer b) if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.
Give answer c) if the data either in Statement I alone or in Statement II alone are sufficient to answer the question.
Give answer d) if the data in both the Statements I and II are not sufficient to answer the question.
Give answer e) if the data in both the Statements I and II together are necessary to answer the question.
80. On which day of the week was Joseph born?
I. Joseph's birthday was one day after his sister's birthday.
II. Joseph was born on the third day of the week.
81. $\mathrm{M}, \mathrm{P}, \mathrm{D}, \mathrm{K}$ and Rare sitting around a circle facing at the centre. Who is to the immediate right of P?
$I$. $D$ is sitting between $M$ and $R$.
II. $K$ is not to the immediate left of $R$.
82. How is $D$ related to $M$ ?
I. D has two sisters K and N.
II. K's father is brother of M .
83. How is 'go' written in a certain code language?
I. "go home now" is written as "ja ho na" in that code language.
II. "come home later" is written as " pa ta ho" in that code language.
84. What is Samir's rank from the top in a class of 40 students?
I. Nikhil who is five ranks below Samir is tenth from the bottom.
II. Suresh who is six ranks above Samir is twentieth from the top.

Directions (85-89) : Study the following information carefully and answer the question given below:
M, V, K, D, T, J and Rare seven friends studying in different classes IIIrd, IVth, Vth, VIth, VIIth, VIIIth and IXth standards. Each of them has different favourite colours-yellow, blue, red, white, black, green and violet. J likes red and studies in class Vth. R likes violet and studies in Class IIIrd. M studies in Class VIIIth and does not like either green or yellow. K likes white and does not study either in VIIth or in IVth. D studies in VIth and likes black. T does not study in IVth. V does not like green.
85. In which standard does 'V' study?
a) IVth
b) IXth
c) VIIIth
d) Data inadequate
e) None of these
86. What is M's favourite colour?
a) Red
b) Yellow
c) Green
d) Blue
e) None of these
87. In which standard does K study?
a) IIIrd
b) Vth
c) IVth
d) VIIth
e) None of these
88. What is V's favourite colour?
a) Green
b) Red
c) Yellow
d) Data inadequate
e) None of these
89. In which standard does T study?
a) IVth
b) VIIth
c) VIIIth
d) IXth
e) None of these

Directions (90-95) : Study the following information carefully and answer the questions given below. Digits in the numbers are to be coded as follows:
Digit : 2571369840
Code: PDMRFLJZHK
The following conditions are to be applied:
(i) if the first digit is even and the last digit is odd, each of the even digits in the number is to be coded as ' $A$ '.
(ii) if the first digit is odd and the last digit is even, each of the odd digits in the number is to be coded as ' B '.
(iii) If ' 0 ' is the last digit of the number, it is to be coded as ' X '.
(iv) if first and the last digits either both are even or both are odd. then both are to be coded as ' Y '.
(v) ' 0 ' is neither even nor odd.

Applying the above conditions you have to find out the correct code for the number in each question and indicate your answer accordingly. If none of the codes is correct, e) i.e. 'None of these' is your answer.
90. 375481
a) YMDLZY
b) XMDHZX
c) $Y M D H Z Y$
d) $X M D L Z X$
e) None of these
91. 871543
a) BMRDHB
b) AMRDHB
c) BMRDHA
d) AMRDHA
e) None of these
92. 586342
a) DAAFAA
b) BZLBHP
c) BZLFHB
d) AZLAHP
e) None of these
93. 639487
a) AFJAAM
b) BFJBBM
c) AFJHZA
d) BFJHZB
e) None of these
94. 647320
a) LHMFPK
b) LHFMPX
c) LHMFPX
d) LHFMPK
e) None of these
95. 430912
a) $X F K J R X$
b) YFXJRY
c) $X F Y J R X$
d) YFKJRY
e) None of these

Directions (96-105) : Study the following information carefully and answer the questions below.
An organization wants to recruit System Analysts. The following conditions apply.
The candidate must-
(i) be an engineering graduate in Computer/IT with at least 60\% marks.
(ii) have working experience in the field of Computer at least for 2 years after acquiring the requisite qualification.
(iii) have completed minimum 25 years and maximum 30 years of age as on 1.12.2005.
(iv) be willing to sign a bond for Rs. 50,000/-.
(v) have secured minimum 55\% marks in selection test.

However, if a candidate fulfills all other conditions except:
(a) at (i) above, but is an Electronics Engineer with $65 \%$ or more marks the case is to be referred to the General Manager (GM) -IT.
(b) at (iv) above, but has an experience of at least 5 years as a Software Manager, the case is to be referred to the VP.

In each question below, detailed information of candidate is given. You have to carefully study the information provided in each case and take one of the following courses of actions based on the information and the conditions given above. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 01.12.2005. You have to indicate your 'decision by marking answers to each question as follows:
Mark answer a) if the case is to be referred to VP.
Mark answer b) if the case is to be referred to GM.
Mark answer c) if the data provided is not sufficient to take a decision.

Mark answer d) if the candidate is to be selected.
Mark answer e) if the candidate is not to be selected.
96. Giridhar is working as a Software Engineer in a reputed company for past 4 years after completing Computer Engineering with $68 \%$ marks. He has cleared the selection test with $75 \%$ marks and is willing to sign the bond. His date of birth is 17th December 1978.
97. Ms. Suneeta is an IT Engineer with $60 \%$ marks at graduation as well as in selection test. She is working as a Software Engineer for last 3 years after completing engineering degree and has completed 27 years of age. She is willing to sign the bond of Rs. 50,000/-.
98. Nikita has just completed 26 years of age. She has passed IT Engineering examination in 2002 with $66 \%$ marks and is working as a Sr. Programmer since then. She has no problem in signing the bond of Rs. 50,000/-. She has secured 53\% marks in selection test.
99. Rakesh Rao is a Computer Engineer Graduate and thereafter is working as a Software Manager for past 6 years. He has secured $72 \%$ marks at graduation and $67 \%$ marks in selection test. His date of birth is 5 th December 1976. He is not willing to sign the bond for Rs. 50,000/-.
100. Ramkumar is an engineering graduate in Computers with 78\% marks passed out in 1999 at the age of 23 years. Since then he is working as a Software Manager in an engineering firm. He doesn't want to sign the bond for Rs. $50,000 /$. He has cleared the selection test with $72 \%$ marks.
101. Abhijit is a Computer Engineer with $65 \%$ marks passed out in 2001 at the age of 22 years. Since then he is working as a Software Engineer, in a private firm. He is willing to sign the bond for the required amount. He has secured 63\% marks in selection test.
102. Mr. Rajan is working as a Programmer for the last 6 years in an engineering firm after passing engineering examination. He has passed Electronics Engineering with 76\% marks. His date of birth is 16.05.78. He has cleared the selection test with $62 \%$ marks and is willing to sign the bond for Rs: $50,000 /$-.
103. Nishant is an Electronics Engineer passed out in June 2002 at the age of 22 years Since then he is working as a Programmer in a software company. He has passed the selection test with $66 \%$ marks and is willing to sign the bond.
104. Kalyani is an engineer with $72 \%$ marks in Telecommunication. She has just completed 27 years of age. She has cleared the selection test with $59 \%$ marks. She is willing to sign the bond.
105.Sangita is an IT Engineer and is working as an EDP Officer in a bank for past 5 years. She has completed 28 years of age and is willing to sign the bond of Rs. 50,000/-. She has obtained $65 \%$ marks in the selection test.
106. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
a) 13
b) 17
c) 19
d) 27
e) 29
107. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
a) Wheat
b) Cabbage
c) Food
d) Brinjal
e) Rice
108. 'Guava' is related to 'Fruit' in the same way as 'Carrot' is related to
a) Stem
b) Fruit
c) Flower
d) Root
e) None of these
109. In a certain code, PROBLEM is written as MELAPRO. How is SAVIOUR written in that code?
a) RUOHVAS
b) RUOHSAV
c) RUOJSAV
d) VASHRUO
e) None of these
110. If it is possible to make only one meaningful word with the third, the fifth and the seventh letters of the word CREDIBLE, which of the following will be the second letter of that word?
a) $L$
b) 1
c) E
d) No meaningful word can be made
e) More than one meaningful work can be made
111. 'Mother' is related to 'Child' in the same way as 'Tree' is related to
a) Sapling
b) Bush
c) Grass
d) Shrub
e) None of these
112. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
a) Water
b) Tree
c) Air
d) Fruit
e) Acid
113. In a certain code, COURT is written as DPVSU. How is BRAIN written in that code?
a) CSBJO
b) AQZHM
c) DTCKP
d) CTBKO
e) None of these
114. How many such digits are there in the number 521468, the positions of which remain unchanged even after the digits are arranged in ascending order?
a) None
b) One
c) Two
d) Three
e) More than three
115. $B$ is sister of $D$. $D$ is sister of $M . M$ is brother of $K$. How is $K$ related to $B$ ?
a) Brother
b) Sister
c) Brother or Sister
d) Data inadequate
e) None of these

Directions (116-120) : Study the following statements and answer the questions given below :
(i) ' $A \times B$ ' means ' $A$ is brother of $B$ '.
(ii) ' A - B ' means ' A is mother of B '.
(iii) ' $A+B$ ' means ' $A$ is father of $B$ '.
(iv) ' $\mathrm{A} \div \mathrm{B}^{\prime}$ means ' A is sister of B '.
116. ' M is maternal uncle of J ' will be written as which of the following?
a) $J \times R-M$
b) $M \times J-T$
c) $M X T+J$
d) $M X T-J$
e) None of these
117. 'P is niece of J' will be written as which of the following?
a) $J \div R-P \div T$
b) $J \div R-P$
c) $J X R-P$
d) $P \div J+K$
e) None of these
118. Which of the following represents ' $K$ is nephew of $R$ '?
a) $R X M+K$
b) $R X M+K X J$
c) $K \times M-R$
d) Cannot be determined
e) None of these
119. Which of the following relationship between $T$ and $R$ is represented by 'T + J-R'?
a) $T$ is grandmother of $R$
b) $R$ is grandson of $T$
c) $T$ is grandfather of $R$
d) $R$ is granddaughter of $T$
e) None of these
120. Which of the following statements is superfluous to answer the above questions?
a) Only (i)
b) Either (i) or (iii)
c) Either (ii) or (iv)
d) All the four statements are required
e) The question cannot be answered even with all the four statements

Directions (121-125) : In each of the questions below are given four statements followed by four conclusions numbered I, II, III \& IV. You have to take 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 conclusions logically follows from the given statements disregarding commonly known facts:
121. Statements:

Some apples are bananas.
All bananas are pears.
Some pears are oranges.
All oranges are guavas.
Conclusions:
I. Some guavas are apples.
II. Some guavas are pears.
III. Some oranges are bananas.
IV. Some pears are apples.
a) Only I and III follow
b) Only II and IV follows
c) Only I and II follow
d) Only III and IV follow
e) None of these
122. Statements :

All figures are toys.
Some toys are frames.
All frames are kites.
No kite is doll.
Conclusions:
I. Some dolls are toys.
II. Some kites are toys.
III. No doll is toy.
IV. Some frames are figures.
a) None follows
b) Only II follow
c) Only either I or III follows
d) Only either I or III and II follow
e) Only either I or III and II and IV follow
123. Statements :

All shops are markets.
All goods are markets.
All bottles are shops.
Some markets are huts.
Conclusions:
I. Some huts are bottles.
II. Some goods are bottles.
III. All bottles are markets.
IV. Some shops are huts.
a) Only I and III follow
b) Only III follows
c) Only II, III and IV follow
d) Only I, III and IV follow
e) None of these

## 124. Statements:

Some books are papers.

Some papers are roads.
Some roads are lanes.
Some lanes are streets.
Conclusions:
I. Some streets are roads.
II. Some lanes are books.
III. Some streets are books.
IV. Some roads are books.
a) None follows
b) Only I and $n$ follow
c) Only III and IV follow
d) Only I, II and III follow
e) Only II follows
125. Statements:

Some roses are petals
All petals are fruits
All fruits are trees.
Some trees are flowers.
Conclusions:
I. Some trees are roses.
II. Some flowers are fruits.
III. Some fruits are petals.
IV. All petals are trees.
a) All follow
b) Only I and III follow
c) Only I and IV follow
d) Only II, III and IV follow
e) None of these

Directions (126-130) : In making decisions about important questions, it is desirable to be able to distinguish between 'strong' arguments and 'weak' arguments. 'Strong' arguments are those which are both important and directly related to the question. 'Weak' arguments are those which are of minor importance and also may not be directly related to -the question or may be related to a trivial aspect of the question.
Each question below is followed by three arguments numbered I, II and III. You have to decide which of the arguments 'is a 'strong' argument and which 'weak' argument is.
126. Statement :

Should the Govt. supply free text books up to Std. $X$ to all the students in the Govt. run schools in India?
Arguments:
I. No, many students of these schools come from rich families and they should not be given free books.
II. Yes, this will considerably reduce the percentage of school dropouts as many parents cannot afford the burden of buying books.
III. No, the prices of books prescribed up to Std. $X$ are otherwise very low and there is no need to distribute books free of cost to the students.
a) Only I and II are strong
b) Only II and III are strong
c) Only I and III are strong
d) AII I, II and III are strong
e) None of these
127. Statement:

Should the Govt. privatize all the coal mines in the country?

Arguments:
I. Yes, this will result in optimum mining as the private companies are in a position to bring in experts from other countries to maximize the output.
II. No, the coal mines are our country's wealth and we should not allow them to go to the private hands.
III. Yes, the coal mines in India are in very bad shape and the Govt. is unable to manage them efficiently.
a) Only I and III are strong
b) Only I and II are strong
c) Only II and III are strong
d) AII I, II and III are strong
e) None of these

## 128. Statement:

Should all the engineering graduates passing out of Govt. colleges be compulsorily made to work in Govt.
organizations/public sector undertakings?
Arguments:
I. Yes, these students have used huge resources of the Govt. and they should pay back by serving in Govt./public sector undertaking.
II. Yes, otherwise these students will join the multinational companies and earn huge sums of money leading to loss of Govt. resources.
III. No, each individual has a right to choose his/her job and serving in Govt./public sector undertaking should not be made mandatory.
a) None is strong
b) Only III is strong
c) Only I and III are strong
d) Only either I or III and II are strong
e) None of these

## 129. Statement:

Should the public voting in Reality TV shows be completely banned?
Arguments:
I. Yes, the public votes can be manipulated by the contestants and the deserving one may not win the contest.
II. No, judges of such shows can be biased and therefore the final verdict should be left to the general public.
III. Yes, people may vote in favour of a contestant for all reasons other than the merit and therefore the public opinion may be biased.
a) Only either I or II is strong
b) Only either II or III is strong
c) Only either I and III or II is/are strong
d) All I, II and III are strong
e) None of these

## 130. Statement:

Should Govt. allow foreign construction companies in setting up of nuclear power plants?
Arguments:
I. Yes, the foreign construction companies are technically superior than the construction companies in our country and therefore they will be able to build better installations.
II. Yes, we need to construct such facilities with the help of foreign construction companies which has experience of building such installations in a time bound manner to avoid unnecessary delay.
III. No, nuclear power installations are sensitive in nature and are integrated to the safety and security of our country and therefore we should not allow the foreigners to have access to such installations.
a) All are strong
b) Only I and II are strong
c) Only III is strong
d) Only II is strong
e) None of these

Directions (131-145) : In each of the questions given below which one of the five answer figures on the right should come after the problem figures on the left, if the sequence were continued?

Problem Figures
131.

132.

133.

134.

135.

136.

137.

138.

139.

140.


a) b) c) d) e)

| T | $\uparrow$ | $\Delta$ | $\Delta$ | $\Delta$ |
| :--- | :--- | :--- | :--- | :--- |
| $\uparrow$ | $\overline{\bar{\Delta}}$ | $\overline{\bar{b}}$ | $\overline{\overline{0}}$ | $\overline{\overline{0}}$ |

a)
b)
c)
d) e)

a)
b)
c)
d) e)
e)

a)
b)
c)
d) e)

a)
b)
c)
d) e)

a)
b) c)
d) e)

a) b)
c)
d) e)

a)
b)
c)
d) e)
141.


a)
b)
c)
d) e)
142.

a)
b)
c)
e)
143.

144.

a)
b)
c)
d) e)
145.


a)

a) b) c) d) e)

Directions (146-150) : The second figure in the first unit of the problem figures bears a certain relationship to the first figure. Similarly one of the figures in the answer figures bears the same relationship to the first figure in the second unit of the problem figures. You are therefore to locate the figure which would fit in the question mark.

## Problem Figures

Answer Figures
146.

147.

148.

149.

150.


a)
b)
c)
d) e)

## English Language

Directions (151-160) : In the following passage there are blanks each of which has been numbered. Against each number, there are five words one of which fills the blank appropriately. Find the appropriate word in each case.

In any organized group of mammals, no matter how co-operative, there is always a (151) for social dominance. As he pursues this, each adult individual (152) a particular social rank, giving him his position, or status, in the group hierarchy. The situation never remains (153) for very long, largely because all the status strugglers are (154) older. When the overlords, or 'top dogs', become senile, their seniority is challenged and they are (155) by their immediate subordinates. There is then renewed dominance squabbling as (156) moves a little farther up the social ladder. At the other end of the scale, the younger members of the group are maturing rapidly, keeping up the pressure from (157). In addition, certain members of the group may suddenly be (158) down by disease or accidental death, leaving gaps in the hierarchy that have to be quickly filled.

The general result is a constant condition of status tension. Under natural (159) this tension remains tolerable because of the limited size of the social groupings. If, however, in the artificial environment of captivity, the group size becomes too big, or the space available too small, then the status 'rat race' soon gets out of hand, dominance battles rage uncontrollably, and the leaders of the packs, prides, colonies or tribes come under (160) strain.
151.
a) feel
b) struggle
c) war
d) envy
e) stress
152.
a) allots
b) inherits
c) approves
d) acquires
e) desire
153.
a) stable
b) equitable
c) equal
d) calm
e) unstable
154.
a) aheading
b) looking
c) feeling
d) moving
e) growing
155.
a) throned
b) thrown
c) overthrown
d) insulted
e) picked
156.
a) they
b) junior
c) elder
d) everyone
e) no one
157.
a) above
b) sides
c) top
d) behind
e) below
158.
a) go
b) feel
c) struck
d) run
e) come
159.
a) forces
b) conditions
c) pressures
d) preconditions
e) upbringing
160.
a) severe
b) unwanted
c) stress
d) productive
e) desirable

Directions (161-170): Read each sentence to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is e) i.e. 'No Error'. (Ignore the errors of punctuation, if any.)
161. That boy possess a)/three precious pens b)/but he does not c)/show them to anyone. d)/No Error e)
162. It was evident from the way a)/they behaved b)/that they had not c)/ conscious of the surrounding. d)/ No Error e)
163. I am grateful to you a)/and all your friends b)/for extending timely help c)/and comfort me. d)/No Error e)
164. Though I had a)/not requested him b)/ he helped me by c)/giving money and advice. d)/No Error e)
165. While he was a)/walking of the road b)/a ferocious bull c)/ knocked him down. d)/No Error e)
166. He has been both $a$ )/an intelligent and b)/hardworking person $c) /$ since his childhood. d)/No Error e)
167. All of us are aware a)/that the excellence qualities b)/ possessed by him c)/are all natural gifts. d)/No Error e)
168. A small loaf a)/of bread is b)/far better to c)/having nothing to eat. d)/No Error e)
169. People who have a)/fortunate enough to own b)/a house in this city c)/are very few. d)/No Error e)
170. The number of employees a)/ reporting sick b)/has increased drastically $c$ )/because of the imminent elections. d)/No Error e)

Directions (171-175): Which of the phrases a), b), c) and d) given below should replace the phrase given in bold in the following sentence to make the sentence grammatically meaningful and correct. If the sentence is correct as it is and no correction is required, mark e) as the answer.
171. He has currently been visiting the earthquake affected areas.
a) has been currently visited
b) is currently visit
c) currently has been visited
d) has been in current visit
e) No correction required
172. The intake of clean, simple food assisted by maintaining a steady flow of psychic energy.
a) assisted to maintaining
b) assisting in maintaining
c) assistance for maintenance
d) assists in maintaining
e) No correction required
173. With however knowledge I have, I can say that your argument is not correct.
a) By whatever knowledge I have
b) With whatever knowledge I have
c) With whatsoever knowledge I do
d) For however my knowledge
e) No correction required
174. If you are ascertained of the fact that you are ignorant, you can improve.
a) are certain of
b) have ascertained from
c) have been ascertained of
d) were ascertaining of
e) No correction required
175. If you can visualize a problem, you can be able to solve it.
a) are being able to solve
b) can be solving
c) can solve
d) are able and solve
e) No correction required

Directions (176-180): Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph; then answer the questions given below them.
(A) The researchers in these companies claim that they could do better by allowing their employees to doze off at workplace.
(B) The dreams, while at work, are thus helpful to solve crucial problems.
(C) Would you believe that some U.K. based companies are arranging for beds at the workplace?
(D) The reason, they claim, could be that dreams produce creative solutions.
(E) We only hope that the secrucial problems in U.K. are different from those of ours.
(F) But it is true and is considered as a step to improve quality of their products.
176. Which of the following should be the THIRD sentence after rearrangement?
a) A
b) B
c) C
d) $D$
e) E
177. Which of the following should be the FOURTH sentence after rearrangement?
a) A
b) B
c) C
d) D
e) E
178. Which of the following should be the FIRST sentence after rearrangement?
a) A
b) B
c) C
d) D
e) E
179. Which of the following should be the FIFTH sentence after rearrangement?
a) A
b) B
c) C
d) D
e) E
180. Which of the following should be the SIXTH (LAST) sentence after rearrangement?
a) A
b) B
c) C
d) D
e) $E$

Directions (181-189) : Read the following passage carefully and answer the questions given below it. Certain words in the passage have been printed in bold to help you locate them when answering some of the questions.
"Rivers should link, not divide us" said 'the Indian Prime Minister expressing concern over interstate disputes and urged state governments to show understanding and consideration, statesmanship and an appreciation of the other point of view".

Water conflicts in India now reach every level; divide every segment of our society, political parties, states, regions and sub-regions within states, districts, castes and groups and individual farmers. Water conflicts within and between many developing countries are also taking a serious turn: Fortunately, the "water wars", forecast by so many, have not yet materialized. War has taken place, but over oil, not water. Water is radically altering and affecting political boundaries all over the world between as well as within countries. In India, water conflicts are likely to worsen before they begin to be resolved. Till then they pose a significant threat to economic growth, security and health of the ecosystem and; the victims are likely to be the poorest of the poor as well as the very sources of water-rivers, wetlands and aquifers.

Conflicts might sound bad or negative, but they are logical developments in the absence of proper democratic, legal and administrative mechanisms to handle issues at the root of water conflicts. Part of the problem stems from the specific nature of water namely that water is divisible and amenable to sharing; one unit of water used by one is a unit
denied to others; it has multiple uses and users and involves resultant trade-offs. Excludability is an inherent problem and very often exclusion costs involved are very high; it involves the issue of graded scales and boundaries and need for evolving a corresponding understanding around them. Finally the way water is planned, used and managed causes externalities-both positive and negative, and many of them are unidirectional and asymmetric.

There is a relatively greater visibility as well as a greater body of experience in evolving policies, frameworks, legal set-ups and administrative mechanisms dealing with •immobile natural resources, however contested the space may be. Reformists as well as revolutionary movements are rooted in issues related to land. Several political and legal inventions addressing the issue of equity and societal justice have been attempted. Most countries have gone through land reforms of one type or another. Issues related to forests have also generated a body of comprehensive literature on forest resources and rights. Though conflicts over them have not necessarily been affectively or adequately resolved, they have received much more serious attention, have been studied in their own right and practical as well as theoretical means of dealing with them have been sought. In contrast, water conflicts have not received the same kind of attention.
181. Why does the author ask readers not to view conflicts too negatively?
(A) Most countries have survived them easily.
(B) They bring political parties together.
(C) They only affect the grass root levels.
a) Only (A)
b) Only (B)
c) Only (C)
d) All (A), (B) and (C)
e) Neither (A) nor (B) nor (C)
182. The author's main objective in writing the passage is to-
a) showcase government commitment to solve the water distribution problem
b) make a strong case for war as the logical resolution .for water conflicts
c) point out the seriousness of the threat posed by unresolved water conflicts
d) describe how the very nature of water contributes to water struggles
e) criticize governmental efforts for water conflict resolution
183. According to the author which of the following is/are consequence/s of water conflicts?
(A) Trans border conflicts between developing countries
(B) Water bodies will remain unused and unaffected till the conflict is resolved
(C) Water conflicts have altered the political boundaries within countries.
a) Only (A)
b) Only (B)
c) Only (C)
d) Both (A) \& (C)
e) None of these
184. According to the passage which of the following is a limitation of water resulting in disputes?
a) Water is not a divisible resource
b) Manipulation of water distribution is easy
c) Water is an interconnected resource
d) Water is an immobile resource
e) None of these
185. Which of the following can be inferred about water conflicts?
a) Water management techniques like dams, linking rivers etc., have negative consequences
b) There is no real solution to water conflicts
c) Despite receiving much attention water conflicts remain unresolved
d) Water conflicts threaten the livelihood of those who depend on water sources
e) None of these
186. Which of the following is TRUE in the context of the passage?
a) Water wars are taking place between many developing countries
b) There have been several legal interventions in India to govern the use of water resources
c) The poor people are worst affected by water conflicts
d) Water diversion by Indian states has helped resolved water disputers
e) None of these
187. What is the Prime Minister's advice to resolve water disputes?
a) Link all rivers to make national grid
b) Politicians alone can solve the problem
c) Bridges and dams can resolve water issues
d) Make consensual and conscious efforts
e) Create public awareness
188. According to the author which of the following factors aggravates water disputes?
a) Political interventions
b) Excessive analysis of the issue
c) Reformist movements by political parties
d) Inadequate administrative and legislative frameworks
e) None of these
189. Which of the following is NOT TRUE in the context of the passage?
a) Deeper problems exist at the root of all water conflicts
b) Competing uses of water is a cause of water conflict
c) In India water conflicts affect all levels
d) Only social stability is unaffected by water disputes
e) All are true

Directions (190-192): Pick out the word which is closest in meaning to the word printed in bold as used in the passage.

## 190. inherent

a) functional
b) intense
c) persistent
d) characteristic
e) genetic

## 191. materialized

a) mattered
b) interfered
c) hidden
d) presented
e) expanded

## 192. radically

a) suddenly
b) equally
c) completely
d) moderately
e) concurrently

Directions (193-195): Pick out the word which is opposite in meaning to the word printed in bold as used in the passage.
193. worsen
a) bounty
b) accept
c) better
d) stable
e) capable
194. asymmetric
a) unsteady
b) equilibrium
c) discouraging
d) superior
e) contradictory
195. denied
a) considered
b) assigned
c) concerned
d) fined
e) acknowledged

Directions (196-200) : In the sentence below, four words which are printed in bold have been numbered a), b), c) and d). One of them may be wrongly spelt. Find out the word which is wrongly spelt, if there is any. The number of that word is the answer. If all the words printed in bold are spelt correctly in the context of the sentence, mark e) as the answer i.e. 'All correct'.
196. After several a) rounds of negotiations b) the flat owner axceeded c) to our request. d) All correct e)
197. Vinayak is a shrewd a) person, any moment b) he may create c) a trouble d) for you. All correct e)
198. Sania competed a) with the excellent b) players from each state in our country c) and won the first prige. d) All correct e)
199. The approach a) of parents participation b) in education acknowleges $c$ ) the social dimensions $d$ ) of this issue. All correct e)
200. An exclucive a) proposal will be presented b) for discussion and favourable c) consideration. d) All correct e)

Information Technology/Systems
201. The $\qquad$ states that a foreign key must either match a primary key value in another relation or it must be null.
a) entity integrity rule
b) referential integrity constraint
c) action assertion
d) composite attribute
e) None of these
202. An applet $\qquad$
a) is an interpreted program that runs on the client
b) tracks the number of visitors to a Website
c) is a compiled program that usually runs on the client
d) collects data from visitors to a Website
e) None of these
203. A $\qquad$ , sometimes called a boot sector virus, executes when a computer boots up because it resides in the boot sector of a floppy disk or the master boot record of a hard disk.
a) system virus
b) Trojan horse virus
c) file virus
d) macro virus
e) None of these
204. Which error detection method uses one's complement arithmetic?
a) Simple parity check
b) Checksum
c) Two-dimensional parity check
d) $C R C$
e) None of these
205. A result of a computer virus cannot lead to-
a) Disk Crash
b) Mother Board Crash
c) Corruption of program
d) Deletion of files
e) None of these
206. The network interface card of LAN is related to following layer of OSI Model-
a) Transport
b) Network
c) Data Link
d) Physical
e) All of these
207. Which of the following does NOT describe a data warehouse?
a) Subject-oriented
b) Integrated
c) Time-variant
d) Updateable
e) None of these
208. Which of the following is TRUE?
a) Logical design is software dependent
b) In a distributed database, database is stored in one physical location
c) Conceptual design translates the logical design into internal model
d) Logical design is software independent
e) None of these
209. A range check $\qquad$ .
a) ensures that only the correct data type is entered into a field
b) verifies that all required data is present
c) determines whether a number is within a specified limit
d) tests if the data in two or more associated fields is logical
e) None of these
210. The total set of interlinked hypertext documents worldwide is-
a) HTTP
b) Browser
c) WWW
d) B 28
e) None of these
211. With the object-oriented ( 00 ) approach, an object encapsulates, or a programmer.
a) carries out, the details of an object for
b) hides, the details of an object from
c) reveals, the details of an object to
d) extends, the details of an object beyond
e) None of these
212. Every computer connected to an intranet or extranet must have a distinct-
a) firewall
b) proxy server
c) IP address
d) domain name
e) None of these
213. A table of bits in which each row represents the distinct values of a key?
a) Join index
b) Bitmap Index
c) B+ Tree
d) Hierarchical index
e) None of these
214. The degree of detail that should be incorporated into a database depends on what?
a) Data integrity
b) The type of database
c) The user's perspective
d) The business practices and policies
e) None of these
215. The $\qquad$ converts digital signals to analog signals for the purpose of transmitting data over telephone lines.
a) Modem
b) Router
c) Gateway
d) Bridge
e) All of these
216. Before a package can be used in a Java program it must be $\qquad$ .
a) executed
b) referenced
c) imported
d) declared
e) None of these
217. Choose the correct way to indicate that a line in a C++ program is a comment line, that is, a line that will not be executed as an instruction.
a) begin the line with a \# sign
b) begin the line with double slashes (//)
c) begin and end the line with double hyphens (- ... - )
d) indent the line
e) None of these
218. Programming languages built into user programs such as Word and Excel are known as $\qquad$ .
a) 4 GLs
b) macro languages
c) object-oriented languages
d) visual programming languages
e) None of these
219. Firewalls are used to protect against $\qquad$
a) Unauthorized Attacks
b) Virus Attacks
c) Data Driven Attacks
d) Fire Attacks
e) All of these
220. This is a standard way for a Web server to pass .a Web user's request to an application program and to receive data back to forward to the user.
a) Interrupt request
b) Forward DNS lookup
c) Data-Link layer
d) File Transfer Protocol
e) Common gateway interface
221. Three SQL DDL CREATE commands are $\qquad$
a) Schema, Base and Table
b) Base, Table and Schema
c) Key, Base and Table
d) Schema, Table and View
e) None of these
222. Data are $\qquad$ in client/server computing.
a) never sent to the client machine
b) sent in very large sections to save processing time
c) sent only upon the client's request
d) sent in complete copies for the client to filter and sort
(5\} sent from the client to the server for processing
223. Which of the following will NOT eliminate the ambiguities of a null value?
a) Define the attribute as required
b) Define subtypes
c) Define each attribute as having an initial value that is recognized as blank
d) Define super types
e) None of these
224. The directory is mandatory for every disk.
a) Root
b) Base
c) Sub
d) Case
e) None of these
225. This is a group of servers that share work and may be able to back each other up if one server fails.
a) Channel bank
b) Cluster
c) Tiger team
d) Server less backup
e) Logical unit
226. Execution of any 'C' Programme starts from $\qquad$ .
a) the infinite function
b) the moderate function
c) the main function
d) the detection function
e) All of these
227. The four common types of files are -
a) document files, worksheet files, database files and digital files
b) document files, worksheet files, database files and presentation files
c) document files, worksheet files, database files and program files
d) document files, worksheet files, database files and workbook files
e) None of these
228. Software bugs can be caused by the following
a) Poorly validated requirements
b) Properly implemented designs
c) Simple misuse of the program
d) a) and c) both
e) a), b) and c) all
229. $\qquad$ is a primary key of one file that also appears in another file.
a) Physical key
b) Primary key
c) Foreign key
d) Logical key
e) None of these
230. $\qquad$ is a networking model proposed by International Standards Organization.
a) ISO Reference Model
b) IOS Reference Model
c) OSI Reference Model
d) SIO Reference Model
e) None of these
231. Transfer rates range from thousands of bits per second to billions of bits per second, called-
a) Kilo bits per second (Kbps)
b) Megabits per second (Mbps)
c) Decabits per second (Dbps)
d) Gigabits per second (Gbps)
e) None of these
232. A universal standard for moving mail on the Internet is
a) MIME
b) POP
c) SMTP
d) IMAP
e) None of these
233. Which of the following is not a common feature of software applications?
a) Menus
b) Windows
c) Help
d) Search
e) None of these
234. A data analysis technique that organizes data attributes such that they are grouped in non-redundant, stable, flexible, and adaptable entities is known as
a) normalization
b) generalization
c) contextualization
d) concatenation
e) None of these
235. Which of the following is not a restriction for a table to be a relation?
a) The cells of the table must contain a single value.
b) All of the entries in any column must be of the same kind.
c) The columns must be ordered
d) No two rows in a table may be identical
e) None of these
236. In data flow diagrams-
a) processes are represented by rounded rectangles
b) data flows are represented by straight lines
c) data stores are represented by open-ended boxes
d) a) and c) both
e) a), b) \& c) all
237. Which of the following is a transaction?
a) A group of SQL statements consisting of one read and one write operation
b) A group of SQL statements consisting only of read operations
c) A group of SQL statements defining a user-oriented task
d) A group of SQL statements consisting only of write operations
e) None of these
238. The term, "hypertext" means
a) Non-sequential writing
b) Hypermedia
c) Blinking text
d) Text with heavy formatting
e) None of these
239. Programs that automatically submit your search request to several search engines simultaneously are called
a) Metasearch engines
b) Webcrawlers
c) Spiders
d) Hits
e) None of these
240. In Oracle, which statement is true about segments?
a) Each table has its own segment
b) A segment is created every time an extent is created, extended, or altered
c) An index segment is created every time a table is created
d) A segment is deleted whenever a table is truncated
e) None of these
241. If 20 people need to communicate using symmetric-key cryptography, $\qquad$ symmetric keys are needed.
a) 190
b) 200
c) 20
d) 19
e) 210
242. What is Internet 2?
a) A new type of cabling system for Wide Area Networks
b) A second local area network that can connect with another online LAN to share access
c) A new standard for Internet browsers
d) An association to develop advanced Internet technology
e) None of these
243. A device that copies or reproduces text and pages is also called a(n)
a) optical scanner
b) bar code reader
c) character device
d) digital camera
e) None of these
244. A monitor's clarity as indicated by its resolution is measured in
a) bits
b) pixels
c) arrays
d) inches
e) None of these
245. What should you do as soon as you have successfully created the database and the data dictionary?
a) Open the database for users to start adding data
b) Start adding a bunch of table spaces to allow users to use
c) Leave it running for a few days to make sure that nothing bad is going to happen
d) Shut it down and take a cold backup
e) None of these
246. How is power supplied to a low-power USB device?
a) through a power cable
b) From an external power supply
c) Directly from the computer's power supply
d) Through the USB cable
e) None of these
247. Where are cookies stored?
a) On the server
b) In web. $x \mathrm{ml}$
c) On the client
d) In HTML
e) None of these
248. The time between the computer's request for data from secondary storage and the completion of the data transfer is known as the disk's
a) cache time
b) access time
c) recording time
d) baud rate
e) None of these
249. $\qquad$ is an application of associative memory.
a) Pattern recognition
b) Function approximation
c) Image recognition
d) Retina recognition
e) None of these
250. When you are selecting a mouse for a particular computer system what is the most important consideration?
a) The type of drivers that come with the mouse
b) The length of the mouse cord
c) The type of connector the mouse is equipped with
d) The number of buttons the mouse has.
e) None of these

## ANSWERS

| Q. 1 | B | Q. 22 | B | Q. 43 | D | Q. 64 | D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q. 2 | A | Q. 23 | C | Q. 44 | C | Q. 65 | D |
| Q. 3 | C | Q. 24 | E | Q. 45 | A | Q. 66 | E |
| Q. 4 | B | Q. 25 | A | Q. 46 | C | Q. 67 | E |
| Q. 5 | E | Q. 26 | D | Q. 47 | A | Q. 68 | A |
| Q. 6 | E | Q. 27 | B | Q. 48 | E | Q. 69 | A |
| Q. 7 | E | Q. 28 | A | Q. 49 | E | Q. 70 | B |
| Q. 8 | D | Q. 29 | C | Q. 50 | E | Q. 71 | C |
| Q. 9 | B | Q. 30 | E | Q. 51 | C | Q. 72 | E |
| Q. 10 | C | Q. 31 | B | Q. 52 | A | Q. 73 | A |
| Q. 11 | A | Q. 32 | D | Q. 53 | A | Q. 74 | B |
| Q. 12 | B | Q. 33 | E | Q. 54 | E | Q. 75 | D |
| Q. 13 | A | Q. 34 | E | Q. 55 | E | Q. 76 | B |
| Q. 14 | D | Q. 35 | C | Q. 56 | C | Q. 77 | B |
| Q. 15 | C | Q. 36 | C | Q. 57 | D | Q. 78 | C |
| Q. 16 | C | Q. 37 | E | Q. 58 | B | Q. 79 | A |
| Q. 17 | D | Q. 38 | B | Q. 59 | D | Q. 80 | B |
| Q. 18 | A | Q. 39 | D | Q. 60 | C | Q. 81 | D |
| Q. 19 | A | Q. 40 | A | Q. 61 | C | Q. 82 | E |
| Q. 20 | B | Q. 41 | C | Q. 62 | B | Q. 83 | D |
| Q. 21 | A | Q. 42 | E | Q. 63 | B | Q. 84 | C |


| Q. 85 | A | Q. 127 | A | Q. 169 | A | Q. 211 | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q. 86 | D | Q. 128 | D | Q. 170 | C | Q. 212 | C |
| Q. 87 | E | Q. 129 | B | Q. 171 | E | Q. 213 | E |
| Q. 88 | C | Q. 130 | C | Q. 172 | D | Q. 214 | C |
| Q. 89 | B | Q. 131 | D | Q. 173 | B | Q. 215 | A |
| Q. 90 | C | Q. 132 | B | Q. 174 | E | Q. 216 | D |
| Q. 91 | E | Q. 133 | D | Q. 175 | A | Q. 217 | B |
| Q. 92 | B | Q. 134 | D | Q. 176 | A | Q. 218 | D |
| Q. 93 | A | Q. 135 | E | Q. 177 | D | Q. 219 | A |
| Q. 94 | C | Q. 136 | A | Q. 178 | C | Q. 220 | D |
| Q. 95 | D | Q. 137 | E | Q. 179 | B | Q. 221 | D |
| Q. 96 | E | Q. 138 | D | Q. 180 | E | Q. 222 | E |
| Q. 97 | D | Q. 139 | B | Q. 181 | E | Q. 223 | C |
| Q. 98 | E | Q. 140 | E | Q. 182 | C | Q. 224 | A |
| Q. 99 | A | Q. 141 | D | Q. 183 | D | Q. 225 | B |
| Q. 100 | A | Q. 142 | C | Q. 184 | B | Q. 226 | C |
| Q. 101 | D | Q. 143 | A | Q. 185 | D | Q. 227 | B |
| Q. 102 | B | Q. 144 | B | Q. 186 | C | Q. 228 | E |
| Q. 103 | E | Q. 145 | B | Q. 187 | D | Q. 229 | C |
| Q. 104 | E | Q. 146 | C | Q. 188 | D | Q. 230 | C |
| Q. 105 | C | Q. 147 | D | Q. 189 | D | Q. 231 | B |
| Q. 106 | D | Q. 148 | B | Q. 190 | C | Q. 232 | A |
| Q. 107 | C | Q. 159 | A | Q. 191 | B | Q. 233 | B |
| Q. 108 | D | Q. 150 | E | Q. 192 | C | Q. 234 | A |
| Q. 109 | B | Q. 151 | B | Q. 193 | C | Q. 235 | C |
| Q. 110 | B | Q. 152 | D | Q. 194 | D | Q. 236 | C |
| Q. 111 | D | Q. 153 | A | Q. 195 | E | Q. 237 | A |
| Q. 112 | E | Q. 154 | E | Q. 196 | C | Q. 238 | B |
| Q. 113 | A | Q. 155 | C | Q. 197 | D | Q. 239 | A |
| Q. 114 | D | Q. 156 | B | Q. 198 | D | Q. 240 | D |
| Q. 115 | C | Q. 157 | E | Q. 199 | C | Q. 241 | A |
| Q. 116 | D | Q. 158 | C | Q. 200 | A | Q. 242 | C |
| Q. 117 | A | Q. 159 | B | Q. 201 | B | Q. 243 | A |
| Q. 118 | B | Q. 160 | A | Q. 202 | D | Q. 244 | B |
| Q. 119 | C | Q. 161 | A | Q. 203 | A | Q. 245 | A |
| Q. 120 | D | Q. 162 | C | Q. 204 | D | Q. 246 | D |
| Q. 121 | E | Q. 163 | D | Q. 205 | B | Q. 247 | C |
| Q. 122 | D | Q. 164 | C | Q. 206 | B | Q. 248 | B |
| Q. 123 | B | Q. 165 | B | Q. 207 | A | Q. 249 | B |
| Q. 124 | A | Q. 166 | E | Q. 208 | A | Q. 250 | C |
| Q. 125 | E | Q. 167 | B | Q. 209 | C |  |  |
| Q. 126 | E | Q. 168 | C | Q. 210 | A |  |  |

