## SOLUTION

1. (5)
2. (4)
3. (2)
4. (1)
5. (3)
6. (5)
7. (2)
8. (3)
9. (1)
10. (4)
11. (5)
12. (2)
13. (4)
14. (2)
15. (4)
16. (3)
17. (5)
18. (4)
19. (1)
20. (5)
21. (5) No correction required.
22. (1) after we had bowed ....
23. (1) 'seldom' if ever' or only 'seldom'.
24. (3) if 'he' has access
25. (3) is that
26. (2)
27. (4)
28. (1)
29. (3)
30. (4)
31. (2)

$$
A L P H \underset{L}{\text { ABE }}
$$

There are two pairs AB and EH
32.
(1)

| B | E | N | C | H | L | U |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| \$ | $\#$ | 5 | $@$ | 2 | 9 | © |
| BULE $\mathbf{~ \$ C 9 \# \# ~}$ |  |  |  |  |  |  |

33. (3) $110 \div 22 \times 10+16-10=66-10=56$
34. (4) In (2), We don't know the sex of $s$.

Let us check others:

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S (-)
|
|
R (-)
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$\therefore$ Hence $S$ is grand - mother of $R$ in (1).
$\ln (3), S$ is the mother of $R$.
In (4),


Hence $S$ is the aunt of $R$.
35. (2) $\quad S>R>P>T>Q$
36. (2) $A / A B / A B C / A B C D / A B C D E / A B$
37. (3) Tech the student = sa ra pa

Teach the people $=$ pa sa ma .... (ii)
From (i) and (ii), Tech the = pa sa ... (iii)
From (i) and (iii), we get, student = ra
38. (3)
39. (3) Others are prime numbers.
40. (1) Here, the first is the working place of the second.
41. (3) $6^{\text {th }}$ to the right of $16^{\text {th }}$ from the right $=(16-6=) 10^{\text {th }}$ from the right $=V$.
42. (2) \# and \%
43. (2) Each corresponding element moves 5 places ahead.
44. (4) $\mathrm{K} \xrightarrow{+1} \mathrm{~L} \xrightarrow{+2}$ @
$9 \xrightarrow{+1} \$ \xrightarrow{+2} V$
$F \xrightarrow{+1} 3 \xrightarrow{+2}$ *
$7 \xrightarrow{+1} 9 \xrightarrow{+1} \$$
$U \xrightarrow{+1} F \xrightarrow{+2} 6$
45. (2) 9 and 6 .
46. (4)
47. (1)
48. (3)
49. (4)
50. (3)
51. (4) $\mathrm{Z}<\mathrm{K}, \mathrm{K}>\mathrm{S}, \mathrm{S} \leq \mathrm{T}$

Combining these, we get
$Z<K>S \leq T$
No comparisons can be concluded.
52. (5) $\mathrm{V} \leq \mathrm{S}, \mathrm{S}<\mathrm{L}, \mathrm{L}<\mathrm{J}$

Combining these, we get
$V \leq S<L<J$
$V<L-I$ Follows.
$S<J-I I$ Follows.
53. (2) $\mathrm{M} \leq \mathrm{R}, \mathrm{R}<\mathrm{J}, \mathrm{J} \leq \mathrm{H}$

Combining these, we get
$M<R<J \leq H$
$M<H$. Hence I does not follow
$R<H-I I$ fOLLOWS.
54. (1) $\mathrm{H} \geq \mathrm{F}, \mathrm{F}=\mathrm{G}, \mathrm{G}>\mathrm{H}$

Combining these, we get
$H \geq F=G>M$
$H>M-I$ Follows.
$H \geq G$ Hence II does not necessarily follow.
55. (3) $\mathrm{W}=\mathrm{T}, \mathrm{T} \geq \mathrm{K}, \mathrm{K}>\mathrm{F}$

Combining these, we get
$W=T \geq K>F$
Hence $W \geq K$
Which means either I $(W>K) \operatorname{or} I I(W=K)$ Follows.
56. (5) All girls are ladies + All ladies are females $=A+A=A=$ All girls are females. Hence I follows. Some Boys are girls + All girls are ladies $=I+A=I=$ Some boys are ladies. Hence II follows.
57. (2) Some doctors are engineers + Some engineers are lecturers $=I+I=$ No Conclusion. Hence I does not follow. Some engineers are lecturers + All lecturers are peons $=I+A=I=$ Some engineers are peons.

## Hence II follows.

58. (5) All combs fare hairs + All hairs are hands $=A+A=A=$ All combs are hands. Hence I follows. All hairs are hands (A) - implication - Some hairs are hands (I). Hence II follows.
59. (4) I does not follow because I-type statements can't be combined. II is a restatement.
60. (1) Some files are folders + All folders are bags $=I+A=I=$ Some files are bags. Hence I follows. All papers are files + some files are folders $=\mathrm{A}+\mathrm{I}=$ No Conclusion. Hence II does not follow.
61. (3) After interchanging the first and last

Digits 983674536748865
$\therefore$ Smallest number is 536
The answer is 635
62. (4) After interchanging the first two digits;

839, 746, 365, 487, 658
Ascending order :
365, 487, 658, 746, 839
The second number is 487 .
The answer is 847
63. (3) Sum of the digits are,

20, 17, 14, 19, 19
The answer is 635
64. (5) After subtracting 1 from the middle digit of each number and interchanging first and second digits, we Get
739, 646, 265, 387, 558

The answer is 568
65. (1) After subtracting I from the last digit and adding 1 to the first digit:

488, 575, 734, 946, 667
The smallest number is 488 .
The answer is 389.
66. (1)
67. (3)
68. (4)
69. (2)
70. (2)
71. (1) $\sqrt{?}=\frac{8657}{\sqrt{2809}}=\frac{8957}{53}=169$
$\therefore ?=(169)^{2}=28561$
72. (2)
73. (2)
74. (1)
75. (1)
76. (1) $\div 2-1=23, \div 2-1=10.5, \div 2-1=4.25 \ldots \ldots$
77. (1) $2+13=15,15+26=41,41+39=80,80+52=132$
$\therefore 132+65=197$
78. (1) $51975 \div 11=4725,4725 \div 9=525$,

$$
525 \div 7=75,75 \div 5=15
$$

$$
15 \div 3=5
$$

79. (2) $4+15=19,19+30=49,49+60=109$,
$109+120=229$
80. (2) $840 \div 1=840,840 \div 2=420,420 \div 3=140$,
$140 \div 4=35,35 \div 5=7$
81. (4) Required difference $=27-21=6$ lakh tones
82. (2) Required year $=2010$
83. (4) Required Ratio $=2: 6=1: 3$
84. (3)

Required percentage $=\frac{4}{5} \times 100=80 \%$
85. (3) Required difference $=27-21=6$ lakh tones
86. (3) $38 x+38 y=5016$

$$
x+y=\frac{5016}{38}=132
$$

$\therefore \frac{(x+y)}{2}=\frac{132}{2}=66$
87. (3) LCM of $8,6,4,12$ and 10 is 120 . They ring together after every 120 seconds.
$\therefore$ for 1 hour they ring $\frac{3600}{12}=30$ times together.
88. (2) Let the present age of Ram and Shyam be $4 x$ and $3 x y r s$.
$\frac{4 x+9}{3 x+9}=\frac{7}{6}$
$\therefore \quad \mathrm{x}=3$
$\therefore$ The ages of Ram and Shyam are 12 and 9 years.
$\therefore$ Required ratio $=\frac{12+12}{9+12}=\frac{24}{21}=\frac{8}{7}$
89. (2) $35 \%$ of total marks $=320+30=350$
$\therefore$ Total marks $=\frac{350 \times 100}{35}=1000$
90. (3) Let the no. be c.
$\therefore 72 \%$ of $x-49 \%$ of $x=575$
$\therefore(72-49) \%$ of $x=575$
$\therefore$ of $x=\frac{575}{23} \times 9=225$
91. (2) Let the rate $\%=r$
$\therefore 5136=\frac{8560 \times r \times 5}{100}$
$\therefore r=12$
92. (1) Because, $65 \times 66=4290$
93. (4) Booking amount $=13 \%$ of $(650 \times 6500)$
$=\frac{650 \times 6500 \times 13}{100}=549250$
94. (4) Let the no. be $x$.
$\therefore \frac{1}{8}$ of $\quad x=76$
$\therefore x=608$
$54 \%$ of $608=\frac{608 \times 54}{100}=328.32$
95. (3) Let the $1^{\text {st }}$ no. be $x$ and $2^{\text {nd }}$ no. be $y$
$\therefore 39 \%$ of $x=91 \%$ of $y$
$39 x=91 y$
$\therefore \frac{x}{y}=\frac{91}{39}=\frac{7}{3}$
96. (1) (? $)^{2}=342 \times 38$
$\therefore \quad ?=\sqrt{342 \times 38}=\sqrt{38 \times 9 \times 38}=38 \times 3=114$
97. (3) Required amount $=\frac{90300}{28}=3225$
98. (2) Because, $19 \times 23=437$
99. (1) Cost of ( 21 books +28 pens $)$ is 1855 .

Cost of $\frac{6}{7} \times(21$ books +28 pens $)=\frac{6}{7} \times 1855$
$\therefore$ Cost of 18 books and 24 pens $=1590$
100. (3) Let the no. be $x$.
$\therefore \mathrm{x}^{2}+(47) 2=2290$
$\therefore \mathrm{x}^{2}=2290-2209=81$
$\therefore x=9$

