SOLUTIONS

NUMERICAL ABILITY

1.	(d)	2.	(a)	3.	(b)	4.	(e)	5.	(b)	6.	(b)	7.	(b)	8.	(d)	9.	(d)	10.	(d)
11.	(d)	12.	(a)	13.	(b)	14.	(d)	15.	(d)	16.	(b)	17.	(e)	18.	(e)	19.	(a)	20.	(d)
21.	(c)	22.	(e)	23.	(b)	24.	(e)	25.	(c)	26.	(d)	27.	(c)	28.	(b)	29.	(c)	30.	(c)

REASONING ABILITY

31.	(d)	32.	(a)	33.	(c)	34.	(c)	35.	(a)	36.	(d)	37.	(d)	38.	(d)	39.	(b)	40.	(b)
41.	(d)	42.	(b)	43.	(c)	44.	(d)	45.	(e)	46.	(c)	47.	(d)	48.	(a)	49.	(c)	50.	(c)
51.	(b)	52.	(a)	53.	(b)	54.	(b)	55.	(c)	56.	(c)	57.	(c)	58.	(b)	59.	(e)	60.	(c)
61.	(c)	62.	(b)	63.	(a)	64.	(d)	65.	(e)	66.	(b)	67.	(c)	68.	(e)	69.	(c)	70.	(e)

- NUMERICAL ABILITY

1. $? = 3.6 + 36.6 + 3.66 + 0.36 + 3.0 = 47.22$

2. $? = 23 \times 45 \div 15 = \frac{23 \times 45}{15} = 69$

3. $? = 4\frac{5}{6} + 7\frac{1}{2} - 5\frac{8}{11}$

$$= (4 + 7 - 5) + \left(\frac{5}{6} + \frac{1}{2} - \frac{8}{11}\right)$$

$$= 6 + \left(\frac{55 + 33 - 48}{66}\right)$$

$$= 6 + \frac{40}{66} = 6\frac{20}{33}$$

4. $\frac{210}{14} \times \frac{17}{15} \times ? = 4046$

$$\therefore ? = \frac{4046 \times 15 \times 14}{210 \times 17} = 238$$

5. $? = 83\%$ of $2350 = \frac{83}{100} \times 2350$

$= 83 \times 23.50 = 1950.50$

6. $(?)^2 = \sqrt{1089} + 3 = 33 + 3 = 36$

$\therefore \quad ? = \sqrt{36} = 6$

7. $? = 96 + 32 \times 5 - 31 = 96 + 160 - 31$

$= 256 - 31 = 225$

8. $? \div 36 = 7^2 - 8$

Or $\frac{?}{36} = 49 - 8$

Or $? = 41 \times 36$

$\therefore \quad ? = 1476$

9. $? = \sqrt{8281} = 91$

10. $? = (63)^2 - (12)^2 = (63+12)(63-12)$

$\therefore ? = 75 \times 51 = 3825$

11. $? = 1\frac{4}{5} + 3\frac{3}{5} + 4\frac{3}{10}$

$$= (1+3+4) + \left(\frac{4}{5} + \frac{3}{5} + \frac{3}{10}\right)$$

$$= 8 + \left(\frac{8+6+3}{10}\right)$$

$$= 8 + \frac{17}{10}$$

$$= (8+1) + \frac{7}{10} = 9\frac{7}{10}$$

12. $17 \times 19 \times 4 \div ? = 161.5$

Or, $\frac{17 \times 19 \times 4}{?} = 161.5$

Or, $\frac{17 \times 19 \times 4}{161.5} = ?$

Or $\frac{17 \times 19 \times 4 \times 10}{1615} = ?$

Or, $\frac{12920}{1615} = ?$

$\therefore \quad ? = 8$

13. $1798 \div 31 \times ? = 348$

Or $\frac{1798}{31} \times ? = 348$

Or, $? = \frac{348 \times 31}{1798} = \frac{10788}{1798} = 6$

14. $(9.8 \times 2.3 + 4.46) \div 3 = (3)^?$

Or $\frac{(22.54 + 4.46)}{3} = (3)^?$

Or, $\frac{27}{3} = (3)^?$

Or $9 = (3)^?$

Or $(3)^? = (3)^2$

$\therefore \quad ? = 2$

15. 43% of $600 + ?\%$ of $300 = 399$

Or $\frac{43}{100} \times 600 + \frac{?}{100} \times 300 = 399$

Or ?× 3= 399-258 =141

$\therefore$?= $\frac{141}{3} = 47$

16. Principal =P, Time = n, Rate = r

$CI = P\left[\left(1+\frac{r}{100}\right)^n - 1\right]$

Here, P= Rs. 7500

R=4% , n = 2 years

So, CI = $7500\left[\left(1+\frac{4}{100}\right)^2 - 1\right]$

$=7500\left[\left(\frac{26}{25}\right)^2 - 1\right]$

$=7500\left[\frac{676-625}{625}\right]$

$=\frac{7500\times 51}{625}$ =Rs.612

17. Total number of letters in the word CREAM =5

Now, 5 letters can be arranged in 5! Ways

$\therefore$ Total number of ways= 5!

=1×2×3×4×5=120

18. Circumference of circle =2 πr

So, 2 πr =792

$\therefore$ $r=\frac{792\times 7}{2\times 22}$

$=\frac{5544}{44}$ =126 m

19. Cost of 36 pens and 42 pencils =Rs. 460

Dividing both sides by 2 we get, cost of 18 pens and 21 pencils

$=\frac{460}{2}$ =Rs. 230

20.Let A's present age be x and B's present age be y.

7 years ago,

$\frac{x-7}{y-7} = \frac{3}{4}$

Or, 4x-28 = 3y -21

Or 4x -3y = 7

9 years from now,

$\frac{x+9}{y+9} = \frac{7}{8}$

Or 8x+72 = 7y +63

Or 8x -7y = – 9 ...(ii)

Solving eqn (i) and (ii)

We get,

X=19 years

Y= 23 years

21.Amount = Rs. 5428

Principal = Rs. 4600

SI = Amount –principal

=5428-4600=Rs. 828

Time= $\frac{SI\times 100}{p\times R} = \frac{828\times 100}{4600\times 3}$

$=\frac{828}{138}$ =6 years

22.Average score

$=\frac{59+84+44+98+30+40+58}{7}$

$=\frac{413}{7}$ =59

23.Let the three consecutive odd numbers be x, x+2 and x+4.

So, x+x+2+x+4=1383

Or 3x+6=1383

Or 3x = 1383 -6=1377

$\therefore$ $x = \frac{1377}{3} = 459$

Hence, the largest odd number

= x+4

= 459+4 = 463

(24-26):

Cost price = Rs. 5600

Marked price = $5600 \times \frac{112}{110}$ = Rs= 6272

Selling price = $6272\times \frac{95}{100}$

=Rs. 5958.40

24. marked price= Rs. 6272

25. Profit =Selling price- cost price

=Rs. 5958.40- rs.5600 =Rs. 358.40

% Profit = $\frac{\text{profit}}{\text{cost price}}\times 100$

$=\frac{358.40}{5600}\times 100 = 6.4\%$

26. Discount = Marked price –selling price

=6272 –Rs. 5958.40 = Rs. 313.6

27. Area of rectangle = length ×breadth

=l×b

So, 39×b =1209

$\therefore$ $b=\frac{1209}{39}$ = 31 m

Hence, perimeter = 2 (l+b)

=2(39+31)=140 m

28. total number of users of brand B in all cities together

=600+500+ 650+700+550=3000

29. number of users of Brand A in city T = 700

Number of users of Brand B in City Q = 500

$\therefore$ Required % = $\frac{700}{500}\times 100$ =140%

30.Average number of users of Brand A in all five cities

$=\frac{500+550+600+550+700}{5}$

$=\frac{2900}{5} = 580$

31. total number of users of brand A and B, in city

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R= 600+ 650=1250

Total number of users of brand A and b in city of users of Brand A and B in city p = 500+600 =1100

∴ Difference =1250-1100 =150

32. the number of users of brand A in City P = 500

The number of users of Brand B in city S = 700

$\therefore \text{Ratio} = \frac{500}{700} = 5:7$

33. cost price of 21 articles =Rs. 6531

Cost price of one article= $\frac{6531}{21}$

= Rs. 311

Selling price of 21 article = Rs. 9954

Selling price of one article = $\frac{9954}{21}$

=Rs. 474

Profit = 474-311=Rs. 163

$\therefore$ % profit = $\frac{163}{311}\times 100$

$52.41 \approx 52\%$

34. A and B complete the work together in 8 days.

A's and B's one day's work = $\frac{1}{8}$

B alone completes work in 10 days.

B's one day's work =1\10

A's one days' work $= \frac{1}{8}-\frac{1}{10}$

$= \frac{5-4}{40} = \frac{1}{40}$

Hence, A alone can complete the work in 40 days.

35. Cost price = Rs. 1700

Selling price =Rs. 2006

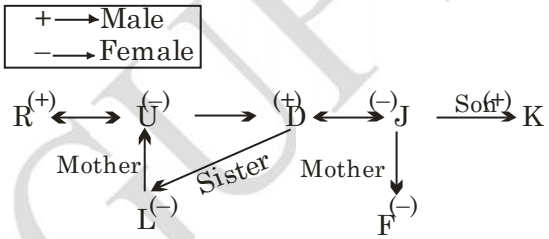
Profit =SP-CP

=2006-1700

=Rs. 306

% profit = $\frac{306}{1700}\times 100 = 18\%$

36-37:



36. (d)

37.(d)

person	Month	Fruit
V	January	Apple
U	February	Papaya
Q	March	Litchi
R	June	Grape
P	August	Banana
T	October	Orange
S	December	Mango

38. (d), 39. (b), 40. (b), 41. (d), 42. (b),

Question (43-45):

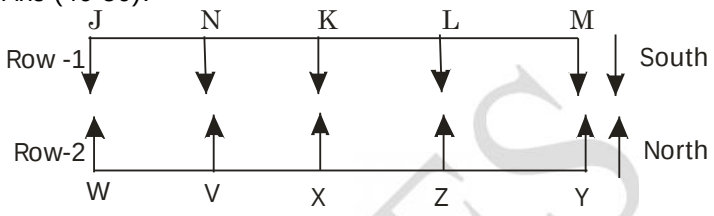
U>Q>P>S>R>T- buildings

↓ ↓ ↓

23 12 5 -offices

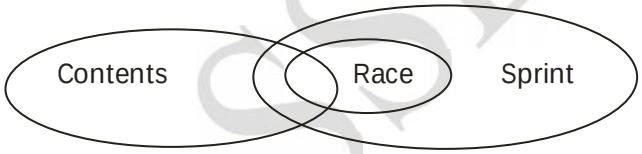
43.(c) 44.(d) 45.(e)

Ans (46-50):



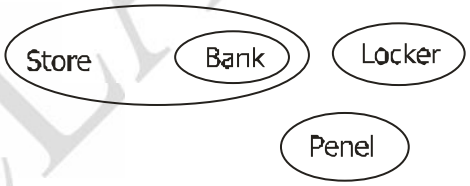
46.(c) 47.(d) 48.(a) 49.(c) 50.(c)

51.(b)

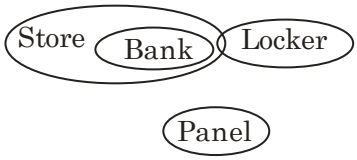


52.(a)

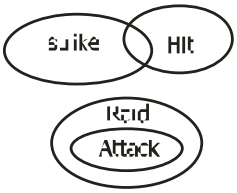
Or



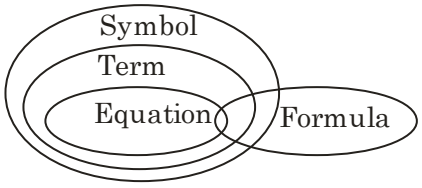
Or



53. (b)



54.(b)



55.(c)

Question (56-60):

56-60

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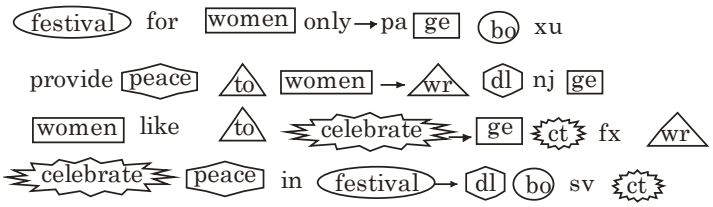

56. (sc) 57.(c) 58.(b) 59.(e) 60.(c)

61. (c) statements : $S \leq L \leq I = P \geq E > R$; $L > Q$
$\Rightarrow Q < L \leq I = P \geq E > R$
Conclusions: I $P \geq S \rightarrow$ False
II. $I > R \rightarrow$ True

62. (b)Statement : $G > R \geq E = A \leq T \leq S$; $D \leq A \leq J$
$\Rightarrow D \leq A \leq T$
Conclusions: $T \geq D \rightarrow$ true
II.$R > S \rightarrow$False

63. (a) Statement : $A \geq B > C \leq D \leq E < F$
Conclusions I. $A \geq E \rightarrow$ false
II. $C = F \rightarrow$ true

64. (d) Statements $G > R \geq E = A \leq T \leq S$; $D \leq J$
Conclusions : I. $J > G \rightarrow$False
II. $J = G \rightarrow$False

65. (e) statement : $S \leq L \leq I = P \geq E > R$; $L > Q$
Conclusions : $L < R \rightarrow$ False
II. $E \geq Q \rightarrow$ False

Question (66-70)
Faces in the center point.

66. (b)
67. (c)
68. (e)
69.(c)
70.(e)

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