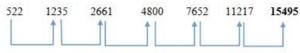


# Solutions

#### 1. Ans. D

The pattern is  $=5^2+1$ ,  $6^2+1$ ,  $7^2+1$ ,  $8^2+1$ ,  $9^2+1$ , So the wrong term 63 is replace by  $= 8^2+1 = 65$ 

# 2. Ans. A



 $+(1\times713)+(2\times713)+(3\times713)+(4\times713)+(5\times713)+(6\times713)$ 

So, 15495 will come at the place of question mark.

# 3. Ans. D

The pattern is 5\*7 = 35, 9\*11 = 99, 13\*15 = 195, 17\*19 = 323, 21\*23 = 483

#### 4. Ans. C

The series is x 1 + 2, x 2+3, x 3 + 4, so next term is = 31\*4+5 = 129

### 5. Ans. B

$$200 \times \frac{6}{5} = 240$$

$$240 \times \frac{5}{4} = 300$$

$$300 \times \frac{4}{3} = 400$$

$$400 \times \frac{3}{2} = 600$$

$$600 \times \frac{2}{1} = 1200$$

# 6. Ans. C

Take nearest values  $(233.01+117.0003)\times68.01\div16.998$  $= 350 \times 4 = 1400(approx)$ 

## 7. Ans. C

44% of 125 + 75% of 840 = 55 + 630 = 685

## 8. Ans. C

# 9. Ans. A

$$\frac{?}{576} = \frac{256}{?}$$
⇒ ?<sup>2</sup> = 256×576
⇒ ? =  $\sqrt{256 \times 576}$  = 384

# 10. Ans. C

Given that:

$$8\frac{2}{7}$$
% of 1568+132% of 265.75 = x+245.56

$$\Rightarrow$$
 (58/700) of 1568 + 350.79 = x + 245.56

$$\Rightarrow$$
129.92 + 350.79 = x + 245.56  
 $\Rightarrow$ x = 235.15

# 11. Ans. D

$$4^{7.2+7.8-5.6} ---> 4^{9.4}$$
  
 $4^{?} = 4^{9.4-5} = 4.4$ 

# 12. Ans. C

$$555 \times \frac{?}{100} + 444 \times \frac{28}{100} = 202.02$$

$$\frac{555 \times ? + 12432}{100} = 202.02$$

$$555 \times ? + 12432 = 20202$$

$$555 \times ? = 20202 - 12432$$

$$555 \times ? = 7770$$

$$?=\frac{7770}{555}=14$$

#### 13. Ans. D

? = 
$$(73425 - 33267 - 22418 - 17650) \times \sqrt{11025}$$
  
=  $(73425 - 73335) \times \sqrt{11025}$   
=  $90 \times 105$ 

$$= 9450$$



# 14. Ans. D

The given expression is

$$\frac{20.25 + 9.75}{12.55 + 2.45} + \left(0.125 + \frac{1}{4.8}\right)$$

$$\Rightarrow \frac{30}{15} + \left(\frac{1}{8} + \frac{10}{48}\right)$$

$$\Rightarrow 2 + \frac{16}{48} = 6$$

# 15. Ans. A

$$\frac{169}{45} \times \frac{125}{208} \div \frac{5}{16} + \frac{7}{9}$$

$$\frac{169}{45} \times \frac{125}{208} \times \frac{16}{5} + \frac{7}{9}$$

$$\frac{169}{45} \times \frac{25}{13} + \frac{7}{9}$$

$$\frac{65}{9} + \frac{7}{9} = \frac{72}{9} = 8$$

# 16. Ans. A

$$(\sqrt{7921} - \sqrt{2070.25}) \times \frac{1}{4} = (89 - 45.5)/4 = 43.5/4$$
  
= 11 (Approx)

Hence option A is correct

## 17. Ans. B

$$? = (4438 - 2874 - 559) \div (269 - 106 - 83)$$

$$? = (1005) \div (80)$$

$$? = \frac{1005}{80}$$

$$? = 12.56$$

? = 13 (Approx.)

## 18. Ans. E

$$? = 726 \times \frac{15.2}{100} \times 643 \times \frac{12.8}{100}$$

 $= 110.352 \times 82.304$ 

= 9082.41

≈ 9082 (approx)

### 19. Ans. A

40.005% of 439.998 + ?% of655.011 = 229.5  

$$\frac{40}{100} \times 440 + \frac{x}{100} \times 655 = 230$$

$$\frac{? \times 655}{100} = 230 - 176$$

? = 8 (approx.)

# 20. Ans. B

$$\frac{20}{100}$$
 of 600 +  $\frac{10}{100}$  of 900 =120+90=210 (Approx) Hence option B is correct.

# 21. Ans. B

Average = 
$$(280 + 354 + 433 + 343 + 535) / 5 = 389$$

# 22. Ans. D

Difference = 
$$(235 + 567) - 134 = 668$$

### 23. Ans. E

Total animals in China in 1990=320+346+436=1102 Total bears in Sri Lanka = 255 + 343 + 545 + 546+ 453 = 2142Required percent= (1102/2142)\*100=51.44%=51%

# 24. Ans. D

Total animals in 2010 in China = 411 + 535 + 534= 1480

Animals left = 1480 - (35% of 1480) = 962

# 25. Ans. C

Required ans = 
$$3/4$$
 (135 + 325 + 345 + 267) = 804

# 26. Ans. D

$$10y + x - 10 x - y = 72$$

$$9y - 9x = 72$$

$$y - x = 8$$

$$x + y = 10$$

$$x = 1, y = 9$$

Original number = 19

After interchange = 91  
Average = 
$$\frac{19+91}{2} = \frac{110}{2} = 55$$





# 27. Ans. C

Use:  $B = [t_u + t_d] / [t_u - t_d] * R$ 15 km downstream in 18 min so 10 km in (18/15)\*10 = 12 min B = 4x, R = xNow  $4x = [t_u + 12] / [t_u - 12] * x$ Solve,  $t_u = 20$  min

# 28. Ans. C

When difference between the compound interest and simple interest on a certain sum of money for 2 yr at r% rate is Rs. x, then the sum is given by

Sum= 
$$x \left(\frac{100}{r}\right)^2$$
  
=  $128 \left(\frac{100}{8}\right)^2 = 128 \left(\frac{25}{2}\right)^2$   
=  $\frac{128 \times 25 \times 25}{2 \times 2} = Rs. 20000$ 

Short Trick:

Difference of SI and CI =  $p(r/100)^2$ 128 =  $p(8/100)^2$ P = 128\*10000/64 = Rs.20,000

# 29. Ans. D

$$\frac{12x5}{15x4} = \frac{432x5}{675x4}$$
or,  $\frac{1}{1} = \frac{4}{5}$ 

2kg of pulse:1kg of rice=5x2:4x1 or, 2kg of pulse:1kg of rice=10:4=5:2

#### 30. Ans. E

Let Samir's monthly salary be Rs. x. According to the question, x - (52+23)% of x = 4500 x - 75% of x = 4500 25% of x = 4500  $x = \frac{4500 \times 100}{25} = Rs. 18000$ 

#### 31. Ans. B

Let nishant capital is x(8500×36)/(x×2(D) = 15/12 x=10200

### 32. Ans. B

A alone can fill the part of tank in 1 hour = 1/2
B alone can fill the part of tank in 1 hour = 1/3
A alone can empty the part of tank in 1 hour = 1/6
⇒ Part of tank filled in 1 hour

⇒ Part of tallk filled in 1 flot

= 1/2 + 1/3 - 1/6 = 2/3

Now, Time taken to fill 2/3 part of the tank

= 1 hour,

Hence, time taken to fill the whole tank will be

= 1 / (2/3) hours

= 3/2 hours

= 1 1/2 hours.

# 33. Ans. A

Let the present ages of the woman and her daughter be 5x and x yr respectively.

According to the question,

$$5x + x = 21 \times 2$$

$$6x = 42$$

$$X = \frac{42}{6} = 7$$

Woman's age=  $5 \times 7 = 35$  yr Required ratio = (35 + 5):(7+5)= 40:12=10:3

## 34. Ans. D

C.P. = ₹ 6500

 $loss = 20\% = 20 \times 6500/100 = 1300$ 

S.P. = CP - loss = 6500 - 1300 = 5200 ₹

Now C.P. = ₹ 5200

profit =  $25\% = 25 \times 5200/100 = 1300$ 

Hence Total S.P. = C.P. + gain

= 5200 + 1300 = ₹ 6500

Now difference between the amount he has now and initial amount he had = 6500 - 6500 = 0 ₹ Therefore he has neither gain nor loss.

# 35. Ans. E

Let the sum be ₹P.

Then, 
$$\frac{P \times 12.5 \times 4}{100} - \frac{P \times 14 \times 3}{100} = 38.8$$

or 
$$\frac{50P - 42P}{100} = 38.8$$

or, 
$$8P = 38.8 \times 100 = 3880$$

$$\therefore P = \frac{3880}{8} = \underset{485}{\neq} 485$$



# **⇔** gradeup

# 36. Ans. B

1 girl's 1 days work = 1/(8x4)= 1/321 boy' s1 days work = 1/(3x2) = 1/61 woman's 1 days work = 1/(5x4) = 1/20Clearly, girls are less efficient i.e., they are taking the most time.

# 37. Ans. C

Speed of the Car =  $\frac{540}{9}$  = 60 km / hr

Speed of train =  $2 \times 60 = 120 \text{ km/hr}$ Speed of bike =  $2/3 \times 120 = 80 \text{ km/hr}$ Distance covered by bike in  $5 \text{ h} = 80 \times 5 = 400 \text{km}$ Hence option C is correct

# 38. Ans. C

Same number = [1,1,1,1] or [2,2,2,2] or . . . . [6,6,6,6]Total favorable cases = 6Total cases =  $6^4$ Probability =  $6/6^4$  =  $1/6^3$  = 1/216

# 39. Ans. A

4 men + 6 women = 8 men 6 women = 4 men So 6 men + 6 women = 6 men + 4 men  $\Rightarrow$  10 men M1D1 = M2D2 8\*40 = 10\*D2 D2 = 32 days

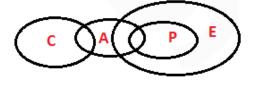
# 40. Ans. C

According to the question (3 boys out of 6) and (2 girls out of 5) are to be chosen.

∴Required number of ways =

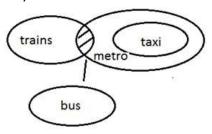
$$({}^{6}C_{3} \times {}^{5}C_{2}) = \left(\frac{6 \times 5 \times 4}{3 \times 2 \times 1} \times \frac{5 \times 4}{2 \times 1}\right) = 200$$

# 41. Ans. B



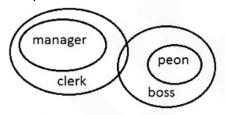
## 42. Ans. D

Only I & III follow

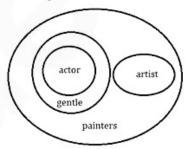


# 43. Ans. B

Only III follows

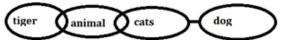


### 44. Ans. A



None of the four conclusions is necessarily true. Hence None follows will be the answer.

# 45. Ans. B



#### 46. Ans. A

Statement: W > D < M < P < A = F
I. F > D (it follows)
II. P < W (it does not follows)

# 47. Ans. D

Statement: H > M > F < A = B > S I. H > B (it does not follow) II. F < S (it does not follow)



## 48. Ans. B

Statement: B > T > Q > R = FI.  $Q \ge F$  (it does not follow) II. T > F (it follows)

### 49. Ans. B

Statements:  $S = R \ge Q$ , P < QI.  $S \ge P$  (it does not follow) II. R > P (it follows)

#### 50. Ans. B

Statements: S > M < Y = Z > F > TI. S > F (it does not follow) II. Y > T (it follows)

## 51. Ans. D

There are 3 such combinations - DF1, MJ3, NP8.

## 52. Ans. E

There are 4 such combinations – V2E, F1U, J32, P8Z.

## 53. Ans. C

There are 2 such combinations – U#, I ©.

#### 54. Ans. A

Except PV#, every other combination has a gap of one position between first two letter and gap of two position in last 2 letter in the arrangement.

# 55. Ans. A

Fifth to the left of the fifteen from the right end means - 5 + 15 = 20th element from right end which is U.

3 P I V 2 E 9 # D F 1 U # B % 8 J I © W M J 3 2 V @ 5 N P 8 Z

# 56. Ans. B

Anu	Bablu	Dheeru	Falak	Esha	Chetan	Harish	Golu
South	North	North	North	South	South	South	North

Two persons are seated between Anu and Falak

# 57. Ans. C

Anu	Bablu	Dheeru	Falak	Esha	Chetan	Harish	Golu
South	North	North	North	South	South	South	North

Anu, Golu represents the persons seated at the two extreme ends of the line.

# 58. Ans. A

Anu	Bablu	Dheeru	Falak	Esha	Chetan	Harish	Golu
South	North	North	North	South	South	South	North

The position of Bablu with respect of Falak second to the left.

## 59. Ans. E

Anu	Bablu	Dheeru	Falak	Esha	Chetan	Harish	Golu
South	North	North	North	South	South	South	North

Golu does not belong to the group becaue all other are facing towards South.

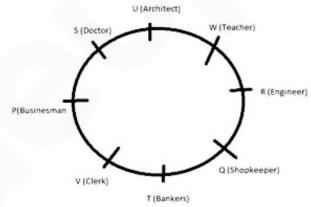
#### 60. Ans. C

Anu	Bablu	Dheeru	Falak	Esha	Chetan	Harish	Golu
South	North	North	North	South	South	South	North

Harish sits on the immediate left of Chetan

## 61. Ans. C

The clerk is an immediate neighbor of the banker is true.



# **62. Ans. D** W is a teacher

V (Clerk)

V (Architect)

W (Teacher)

R (Engineer)

V (Clerk)

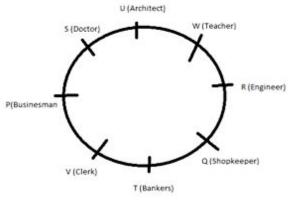
T (Bankers)





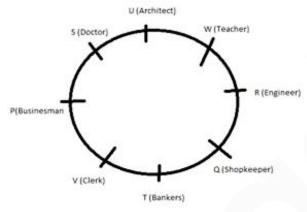
## 63. Ans. C

The position of doctor with respect to the shopkeeper is fourth to the right

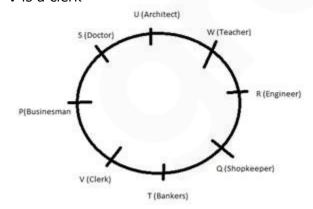


## 64. Ans. D

Doctor sits exactly between the architect and the businessman



# **65. Ans. A** V is a clerk



## 66. Ans. A

Rakesh is a Teacher and Rakesh's wife is Reena who is a lawyer.

Note: Mukesh & Rakesh are married couples and their mother is a lawyer who is head of the family. Wife of Mukesh is a Doctor and Rakesh's wife is Reena who is a lawyer. Ajay is the son of Mukesh.

## 67. Ans. C

Mukesh & Rakesh are married couples and their mother is a lawyer who is head of the family. Wife of Mukesh is a Doctor and Rakesh's wife is Reena who is a lawyer. Ajay is the son of Mukesh.

#### 68. Ans. B

Three males are - Mukesh, Rakesh and Ajay. Note: Mukesh & Rakesh are married couples and their mother is a lawyer who is head of the family. Wife of Mukesh is a Doctor and Rakesh's wife is Reena who is a lawyer. Ajay is the son of Mukesh.

#### 69. Ans. D

Mukesh & Rakesh are married couples and their mother is a lawyer who is head of the family. Wife of Mukesh is a Doctor and Rakesh's wife is Reena who is a lawyer. Ajay is the son of Mukesh.

# 70. Ans. C

vo' stand for - share Solutions: in - to market - pi less - je share - vo maximum - zo dollar - ab now - su making - ka the/gains - do/yo

## 71. Ans. A

the code for 'making' is - ka Solutions: in - to market - pi less - je share - vo maximum - zo dollar - ab now - su making - ka the/gains - do/yo





# 72. Ans. E

the code for 'gain' is - either yo or do Solutions:
in - to
market - pi
less - je
share - vo
maximum - zo
dollar - ab
now - su
making - ka
the/gains - do/yo

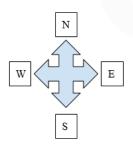
# 73. Ans. B

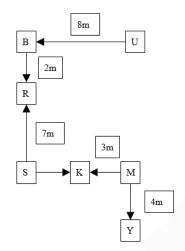
the code for 'the maximum you share' is - vo wiz zo do
Solutions:
in - to
market - pi
less - je
share - vo
maximum - zo
dollar - ab
now - su
making - ka
the/gains - do/yo

# 74. Ans. E

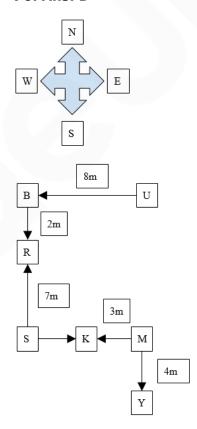
Solutions: in - to market - pi less - je share - vo maximum - zo dollar - ab now - su making - ka the/gains - do/yo

# 75. Ans. B

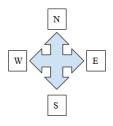




# 76. Ans. D

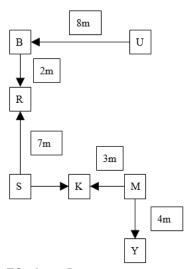


# 77. Ans. A

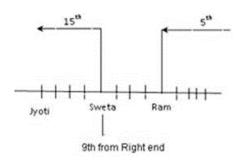








78. Ans. D From the figure, it is clear that Shweta is 9th from the right end.



# 79. Ans. E

According to the question, distance travelled E (30) > A > B (15) > D > C Either C or D possibly travels 5 km to the workplace

# 80. Ans. A

According to the question, distance travelled - E (30) > A > B (15) > D > CA possibly travels 20 km to his workplace.

