RPF MOCK TEST – 3 (SOLUTION)

51. (C) The minimum number of Bananas
= L.C.M of (6, 8, 10, 12, 15, 16) + 4
= 24 + 4 ⇒ 244

52. (B) Per copy cost price for the customer of

45 magazines = $\frac{7}{10}$ × 90 = ₹ 63

Per copy cost price for the buyer of 26

magazine = $\frac{3}{4}$ × 90 = ₹ 67.50

∴ Required diff. = 67.50 – 63 = ₹ 4.50

53. (A) Area of walls = 2 (l + b) × h
= 2(8 + 6) × 3 = 84 m^2
Area of two windows and a door

$= 2\left(1\frac{1}{2}\times 1\right) + \left(2\times 1\frac{1}{2}\right) = 6\ m^2$

∴ Area to be covered = 84 – 6
= 78 m^2
∴ Area of paper = Area to be covered = 78
⇒ (length × breadth) of paper = 78

⇒ length of paper = $\frac{78}{50}$ × 100 m
= 156 m

∴ Required cost = $\frac{156\times 25}{100}$ = ₹ 39

54. (B) Area of large cube = 6(5)^2
= 150 (unit)
Area of cuboid = 2 (1 × 1 + 1 + 125 + 125 × 1)
= 502 sq.units
∴ Percentage increase in surface area

$= \frac{502-150}{150}\times 100 = 234\frac{2}{3}\%$

55. (A) Let the fraction be = $\frac{x}{y}$

ATQ,

$\frac{x\times 140}{2y\times 100} = \frac{7}{16}$

∴ Original fraction = $\frac{5}{8}$

56. (A) Let the downstream and upstream speed be 3x and 5x.

Speed of the current = $3\frac{3}{4}$ km/hr

A.T.Q,

⇒ $\frac{5x-3x}{2} = \frac{15}{4}$ km/hr

⇒ $x = \frac{15}{4}$ km/hr

∴ Speed of the boat in still water

$= \frac{5x+3x}{2} = 4x$

$= \frac{4\times 15}{4}$ km/hr = 15 km/hr

57. (D) Let the number of students = x
A.T.Q.,

$\frac{x}{2} - 5 = \frac{x}{3} - 2$

⇒ $\frac{x}{2} - \frac{x}{3} = 3$

⇒ $\frac{3x-2x}{6} = 3$

⇒ x = 18
So, the number of students = 18

58. (C) Let total
A.T.Q.,
Mark = x

$\frac{x\times 30}{100} + 96 = \frac{x\times 45}{100}\times 24$

⇒ $\frac{15x}{100} = 120$

x = 800
Total marks = 800
Passing marks = 240 + 96
= 336

∴ Required percentage % = $\frac{336}{800}$ × 100

⇒ 42%

59. (C) The minute hand complete one revolution in 60 minute.

∴ In 50 minute it will cover $\frac{50}{60} = \frac{5}{6}$

z of the revolution.
∵ 1 revolution = 2π radian.

∴ $\frac{5}{6}$ revolution = $2\pi\times\frac{5}{6} = \frac{5\pi}{3}$ radian

∴ Distance moved by tip = 3 × $\frac{5\pi}{3}$ cm
= 5π cm

= 5 × $\frac{22}{7}$ cm = 15.71 cm

60.(C) Let sum = ₹x
A.T.Q.,

$$x - 4400 = \frac{x \times 5 \times 100}{9 \times 100}$$

$\Rightarrow 9x - 39600 = 59$
$\Rightarrow x = 9900$

61.(B) ATQ.,

$$\text{Total number of male} = \frac{32600 \times 28}{41}$$

$= 22400$
Total number of female = 10400

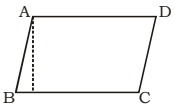
$$\text{Total number married male} = \frac{22400 \times 100}{700}$$

$= 3200$

$$\therefore \text{Required percentage} = \frac{3200}{10400} \times 100$$

$$= 30\frac{10}{13}\%$$

62.(B) Sides are in ratio 5 : 4



Let the sides are $5x$ and $4x$ units
$\therefore$ parallelogram's area = greater side × altitude
$\Rightarrow 1000 = 5x \times 20 \Rightarrow x = 10$
similarly parallelogram's area = smaller side × its altitude
$\Rightarrow 1000 = 4x \times$ its altitude
$\Rightarrow 1000 = 4 \times 10 \times$ it's altitude
$\therefore$ altitude = 25 units

63. (D) Let x litres from each vessel are mixed
$\therefore$ Total water in third vessel

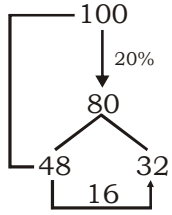
$$= \frac{3x}{7} + \frac{5x}{8} = \frac{59x}{56}$$

Total milk in third vessel

$$= \frac{4x}{7} + \frac{3x}{8} = \frac{53x}{56}$$

$$\therefore \text{Required ratio} = \frac{59x}{56} : \frac{53x}{56} = 59 : 53$$

64. (D)



$\therefore$ 16 unit $\rightarrow$ 1900 – 300
$\Rightarrow$ 1unit $\rightarrow$ 100
then, 32 UNITS $\rightarrow 32 \times 100 = 3200$

65.(A) Let the original number is x
$\therefore$ answer obtained by student = $x \times 7.2 = 7.2x$
but correct answer = $0.72x$
$\Rightarrow 7.2x - 0.72x = 2592 \Rightarrow 6.48x = 2592$

$$\Rightarrow x = \frac{2592}{6.48} = 400$$

$\therefore$ The original number is 400

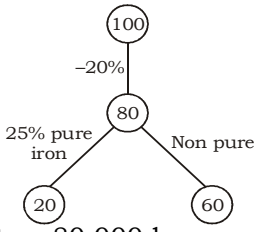
66.(C) The time taken by A in 1 round = $\frac{35}{4}$ hrs

The time taken by B in 1 round = $\frac{35}{5}$ hrs

$\therefore$ L.C.M of $\frac{35}{4}$ and $\frac{35}{5}$ = 35

$\therefore$ They will meet earliest again after 35 hours.

67. (B) Let the total quantity of hematite mined = 100 kg.
ATQ,



$\therefore$ 20 units = 80,000 kg
$\Rightarrow$ 1 unit = 4,000 kg
$\therefore$ Total hematite = 100 × 4000 = 4,00,000 kg

68. (B) Here, first divisor (175) is a multiple of second divisor (25).
$\therefore$ Required remainder = Remainder obtained on dividing 132 by 25 = 7

69. (D) Required average weight

$$\frac{(50 \times 6 + 51 \times 2 + 55 \times 2)}{10} = \frac{300 + 102 + 110}{10}$$

$$= \frac{512}{10} = 51.2 \text{ kg}$$

70. (B) $675 = 5 \times 5 \times 3 \times 3 \times 3$
$\therefore$ Required number = 5

71. (B) Discount = 300 – 274.50 = ₹ 25.50

$$\therefore \text{Discount \%} = \frac{25.50}{300} \times 100 = 8.5\%$$

72. (A) Let the price of table be t and chair be c.

$$4t + 5c = 1000 \quad \ldots(i)$$

$$4 \times \left(t \times \frac{110}{100}\right) + 5 \times \left(c \times \frac{120}{100}\right) - (4t + 5c) = 120$$

$$\frac{44t}{10} - 4t + \frac{30c}{5} - 5c = 120$$

$$\frac{4t}{10} + c = 120$$

$\Rightarrow 4t + 10c = 1200 \quad \ldots(ii)$
$\Rightarrow 4t + 5c = 1000 \quad \ldots(i)$
– – –
$5c = 200$
$\Rightarrow c =$ ₹ 40

$\therefore t =$ ₹ 200
Cost of 1 table = ₹ 200

73. (D) Total number of vote = 1136 + 7636 + 11628
= 20400

$$\text{Required percentage} = \frac{11628}{20400} \times 100$$
$$= 57\%$$

74. (B) Let number of boys = B and Girls = G
$B = G - 2$
$\because \quad B + G = 52$
$\therefore \quad G - 2 + G = 52 \quad [\because B = G - 2]$
$\Rightarrow \quad G = 27, B = 25$
Total weight = 52 × 52 = 2704 kg
Total weight of boys = 25 × 60 = 1500 kg
Total weight of girls = 2704 – 1500
= 1204 kg
$\therefore$ Average weight of girls = $\frac{1204}{27}$ = 44.59 kg

75. (A) Let the larger number be x and smaller be y

$$\therefore x - \frac{y}{2} = \left(y - \frac{y}{2}\right) \times 5$$

$$\Rightarrow \frac{2x - y}{2} = \frac{y}{2} \times 5$$

$$\Rightarrow 2x - y = 5y$$

$$\Rightarrow 2x = 6y \Rightarrow \frac{x}{y} = \frac{6}{2}$$

$$\Rightarrow x : y = 3 : 1$$

76. (B) Let the no. be 30 and 28 respectively.
then, the sum of number = 30 + 28 = 58
Now, divide the number by 17, then we have 7 as the remainder.

77. (A) Distance travelled by have in

$$1 \text{ minute} = \frac{9 \times 5}{18} \times 60 = 150 \text{ m}$$

$\therefore$ Time taken by hound to catch hare

$$= \frac{180 + 150}{(12 - 9) \times 5} \times 18$$

$$= \frac{330 \times 18}{3 \times 15}$$

= 396 sec.

$$\therefore \text{ Required distance} = \frac{396 \times 12 \times 5}{18}$$

= 1320 m.

78. (B) If a + b + c = 0, then $a^3 + b^3 + c^3 = 3abc$
Here, 0.111 + 0.222 + (–0.333) = 0
$= -3 \times 0.111 \times 0.222 \times 0.333$
$= -(0.333)^2 \times 0.222$
$\therefore$ Expression
$= [-(0.333)^2 \times 0.222 + (0.333)^2 \times 0.222]^3 = 0$

79. (C) $\because 1 + 2 + 3 + \ldots + n = \frac{n(n+1)}{2}$

$\therefore 1 + 2 + 3 + \ldots + 25$

$$= \frac{25(25+1)}{2} = 25 \times 13$$

Hence, 13 is a factor of required sum.

80. (A) A – 5 — 7
35
B – 7 — 5
Total work in 1 cycle = 12 units in 2 days
$\therefore$ total time taken by
A and B = $5\frac{4}{5}$ days

81. (B) Average number of people using mobile service for all the years

$$= \frac{20 + 25 + 10 + 35 + 25}{5} \text{ thousands}$$

= 23000

82. (C) Required ratio
= 20 : 15 = 4 : 3

83. (A) Required percentage

$$= \frac{40}{50} \times 100 = 80\%$$

84. (A) Required percentage

$$= \frac{15}{75} \times 100 = 20\%$$

85. (D) Average number of people using all the mobile service throughout all the year

$$= \frac{50 + 60 + 40 + 75 + 65}{5} \text{thousands}$$

= 58000®

86. (B)

87. (C) As,
E N G L I S H
opposite
S H R O T M V
Similarly,
F A C E B O O K
Opposite
P L L Y V X Z U

88. (A) As,
$3^3 + 3 = 30$
$4^4 + 4 =$ **260**

89. (D) As,
168 ÷ 3 = 56
Similarly,
1296 ÷ 4 = **324**

90. (C) As,
7528 – 4195 = 3333
Similarly,
4673 – **1340** = 3333

91. (D) P W E N K R Z I
+7 +8 +9 +7 +8 +9
B I O Z **Y F O X**
+7 +8 +9 +7 +9 +9

92. (C) Except **Dipika Pallikal,** all others are tennis players. While Dipika Pallikal is a squash player.

93. (C) Except **(24, 56),** all others pairs are of the co-prime numbers.

94. (A) Except **Ounce**, all others are the currency of defferent nation. While Ounce is the unit of weight.

95. (C) Except **29 – 84,** in digits of all others sum of digits of first number is equal to sum of digits of second number.

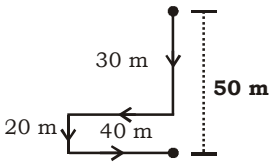
96. (B) As,
(7 + 3) 2 + 1 = 21
and, (6 + 2) 2 + 1 = 17
Similarly,
(4 + 7) 2 + 1 = **23**

97. (A) 6 + 9 = 15 (+4, +2)
17 + 10 = 27 (+4, +2)
29 + 21 = 50 (+4, +2)
52 33

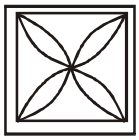
98. (D)

99. (A) Number of odd days
= 1 + 1 + 1 + 2 = 5
∴ Required day = **saturday**

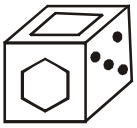
100. (B)



101. (A)



102. (A)



103. (D)

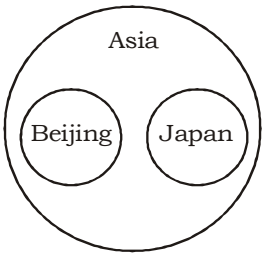
104. (D)

105. (A) 2 × 3 – 2 = 4
3 × 4 – 3 = 9
4 × 9 – 4 = 32
9 × 32 – 9 = **279**

106. (A) 34, 75, 133, **209**, 304
+41 +48 +76 +95
+17 +58 +19

107. (D) Required place = 18 + 6 – 4 = 20

108. (C)



109. (B) ca**b**/bd**c**/ec**d**/fd**e**/ge

110. (D)

I. ×
II. ×
Neither conclusion I nor II follows.

111. (A) As,

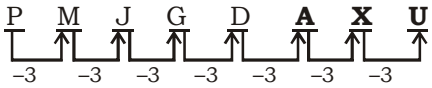
$$17 + 55 \Rightarrow \frac{72}{2} = 36$$

and, $97 + 47 \Rightarrow \frac{144}{2} = 72$

Similarly,

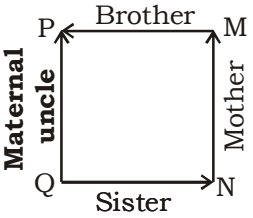
$$28 + 56 \Rightarrow \frac{84}{2} = \mathbf{42}$$

112. (B)

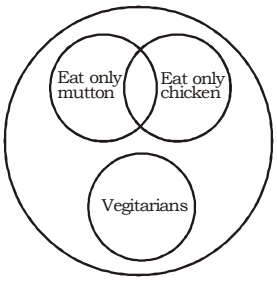


113. (C)
114. (B)
115. (D)

116. (C)



117. (C)



118. (B) Let the fare from city P to Q and R = x and y
ATQ,
$2x + 3y = 84$ ..... (i)
$3x + 2y = 81$ ..... (ii)
On solving equation (i) and (ii),
We get,
y = **18**
and x = **15**

119. (C) Total number of triangles = **8**

120. (A) Required number = 10 + 10 = **20**

Answer key

1.	(D)	16.	(A)	31.	(C)	46.	(C)	61.	(B)	76.	(B)	91.	(D)	106.	(A)
2.	(A)	17.	(C)	32.	(B)	47.	(D)	62.	(B)	77.	(A)	92.	(C)	107.	(D)
3.	(C)	18.	(A)	33.	(B)	48.	(D)	63.	(D)	78.	(B)	93.	(C)	108.	(C)
4.	(D)	19.	(D)	34.	(C)	49.	(D)	64.	(D)	79.	(C)	94.	(A)	109.	(B)
5.	(C)	20.	(D)	35.	(B)	50.	(A)	65.	(A)	80.	(A)	95.	(C)	110.	(D)
6.	(A)	21.	(A)	36.	(C)	51.	(C)	66.	(C)	81.	(B)	96.	(B)	111.	(A)
7.	(D)	22.	(D)	37.	(A)	52.	(B)	67.	(B)	82.	(C)	97.	(A)	112.	(B)
8.	(A)	23.	(B)	38.	(#)	53.	(A)	68.	(B)	83.	(A)	98.	(D)	113.	(C)
9.	(B)	24.	(D)	39.	(D)	54.	(B)	69.	(D)	84.	(A)	99.	(A)	114.	(B)
10.	(A)	25.	(C)	40.	(B)	55.	(A)	70.	(B)	85.	(D)	100.	(B)	115.	(D)
11.	(A)	26.	(B)	41.	(C)	56.	(A)	71.	(B)	86.	(B)	101.	(A)	116.	(C)
12.	(A)	27.	(A)	42.	(B)	57.	(D)	72.	(A)	87.	(C)	102.	(A)	117.	(C)
13.	(D)	28.	(A)	43.	(B)	58.	(C)	73.	(D)	88.	(A)	103.	(D)	118.	(B)
14.	(B)	29.	(C)	44.	(C)	59.	(C)	74.	(B)	89.	(D)	104.	(D)	119.	(C)
15.	(D)	30.	(C)	45.	(B)	60.	(C)	75.	(A)	90.	(C)	105.	(A)	120.	(A)

Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003

Note:- Whatsapp with Mock Test No. and Question No. at 7053606571 for any of the doubts, also share your suggestions and experience of Sunday Mock

Note:- If you face any problem regarding result or marks scored, please contact 9313111777