SOLUTIONs for SBI PO Memory Based Prelims Exam 2015

1. E.
Number of Failed candidates from school-C in the year 2008 = 96
Number of appeared candidates from school-D in the year 2006 = 235
Required number
= 96 + 235
= 331

2. B.
Year 2005 is the second lowest.

3. A.
Number of appeared candidates from school-C in the year 2006 = 693
Number of passed candidates from school-D in the year 2009 = 252
Required Ratio
= 693 : 252
= 11 : 4

4. E.
Number of passed candidates from school B in the year 2005 = 435
Number of appeared candidates from school-A in the year 2008 = 546
Required percentage
$$= \frac{435}{546} \times 100$$
= 80 (approx)

5. C.
Number of passed candidates from school A in the year 2008 = 346
Number of passed candidates from school A in the year 2009 = 435
Percentage Increase $= \frac{89}{346} \times 100$
= 26 (approx)

6. A.
Percentage increase in export of Company C from 2004 to 2008
$$\frac{(750-500) \times 100}{500} = 50\%$$

7. E.
Total export of company A
= 350 + 500 + 400 + 600 + 550 + 400 + 500 = 3300

Total export of company B
= 500 + 400 + 600 +800 +900 +700 +700 = 4600
Required percentage
$$= \frac{3300 \times 100}{4600} = 71.73 \approx 72$$

8. B.
Export in the year2003 = 400 thousand tonne
Export in the year2004 = 600 thousand tonne
Required percentage
$$= \frac{(600-400) \times 100}{400} = \frac{200 \times 100}{400} = 50\%$$

Percent rise in export from the previous year was the maximum in 2004

9. C.
Average export of company B
$$= \frac{500+400+600+800+900+700+700}{7} = \frac{4600}{7}$$
= 657.14

10. E.
Total export of the three companies in the year 2003
= 500 + 400 + 600 =1500
Total export of the three companies in the year 2006
=550 + 900 + 600 = 2050
Required ratio =1500:2050 =30:41

11. B.
Since, milkman sold 80 litre of mixture
So, remaining mixture = 330 – 80 = 250 litre
Quantity of water = 250 × 24/100 = 60 litre
Quantity of milk = 250 – 60 = 190 litre.
Now, milkman made new mixture in which
water = 60 + 26 = 86 litre
milk = 190 + 60 = 250 litre
Percentage of water in the new mixture
= 86/(86 + 250) * 100
$$= \frac{86}{336} * 100 = 25.59\%$$

12. C.
Use:
$$B = \frac{[tu+td]}{[tu-td]} * R$$

15 km downstream in 18 min so 10 km in (18/15)*10 = 12 min
B= 4x,R = x
Now

$$4x = \frac{[tu+12]}{[tu-12]} * x$$

Solve, tu = 20 min

13. D.
(A + B) can do a work in 12 days

∴ (A + B)'s 1 day work = $\frac{1}{12}$ …(1)

(B + C) can do a work in 15 days

∴ (B + C)'s 1 day work = $\frac{1}{15}$ …(2)

If A's efficiency is twice that of C.

∴ (2C + B)'s 1 day work = $\frac{1}{12}$ ….(3)

From (2) and (3), we get
(2C + B – B – C) 's 1 day work

$$= \frac{1}{12} - \frac{1}{15} = \frac{1}{60}$$

C 's 1 day work $\frac{1}{60}$

B's 1 day work $= \frac{1}{15} - \frac{1}{60} = \frac{3}{60} = \frac{1}{20}$

Thus, B can do a work alone in 20 days.
Hence, option C is correct

14. A.
Present age of Rohan = 75 – 7 = 68 years
Present age of Wasim = 68 – 12 = 56 years
Present age of Manoj = 3/8 × 56 = 21 years
Present age of Manoj's father = 21 + 25 = 46 years

15. B.
Let initial investment be x, 3x, 5x. Then,
A : B : C = ((x*4) + (2x*8)) : ((3x*4) + (3x/2*8)) : ((5x*4) + (5x/2*8)) = 20x : 24x : 40x
= 5 : 6 : 10

16. A.
Required Probability

$$= 1 - \frac{12C_3}{15C_3} = 1 - \frac{44}{91} = \frac{47}{91}$$

17. B
Required Rate

$$= \frac{8000 \times 3 \times r_1}{100} = \frac{8000 \times 3 \times r_2}{100} = 576$$

$$\frac{8000 \times 3 \times (r_1 - r_2)}{100} = 576$$

$r_1 - r_2$ = 2.4

18. A.
Area of rectangle = length × breadth
hhh length - breadth of rectangle = 48cm
Breadth = 1/4 length
Hence length - 1/4 length = 48 ⇒ 3/4 length = 48 ⇒length = 16 × 4 = 64cm
Breadth of rectangle = 64 - 48 = 16cm
Area of rectangle = 16 × 64 cm²
Given area of square=area of rectangle = 16 × 64cm²
Area of square = side²
Hence side = $(16 × 64)^{1/2}$ = 4 × 8 cm = 32 cm

19. B.
Let C.P. be x. Discount = 20% of 6080 = 1216
S.P = 6080 - 1216 = 4864
18 = (4864 - x) / x *100 Hence, x = 4122
When discount not given, Profit % = (6080 - 4122)/4122 *100 = 47.5%

20. A.
x = 8, 6
and, y = 3, 2
hence, x > y
21. D
x = -5, -4
and, y = -4, -3 hence, x ≤ y

22. D.
x = ±23
and, y = 23 hence, x ≤ y

23. B.
x = -7, -6
and, y = -9, -7 hence, x ≥ y

24. C.
x = 2.5
and, y = 3 hence, x < y

25. C

$$\left(\frac{47}{100} \times 1442 - \frac{36}{100} \times 1412\right) \div 63$$

= (677.74 – 508.32) ÷ 63 = 169.42/63 = 2.689
= 3 (Approx)
Hence option C is correct

26. D.
? = 2418.065 + 88 ÷ 14.2 × 6
? = 2418.065 + 88 × 1/14.2 × 6
? = 2418.065 + 6.197 × 6
? = 2418.065 + 37.18
? = 2455.25
? = 2455 (Approx.)

27. A.
?
$$\approx 5000 - \sqrt{900} \times 12^2 = 5000 - 30 \times 144$$
? ≈ 5000 – 4320 = 680

28. A.
= 47 x 27 + 15 x 35
= 1269 + 525 = 1794
= 1795 (Approximate)

29. C.
(11+ 49 ÷ 7) * 125 ÷ 5
(11+7)*25
18*25
450

30. B.
The pattern is
(3*1) + (1*1) = 4
(4*2) + (2*2) = 12
(12*3) + (3*3) = 45
(45*4) + (4*4) = 196
(196*5) + (5*5) = 1005

31. C.
26, 38, ?, 68, 86
$5^2 + 1 = 25 + 1 = 26$
$6^2 + 2 = 36 + 2 = 38$
$7^2 + 3 = 49 + 3 = 52$
$8^2 + 4 = 64 + 4 = 68$
$9^2 + 5 = 81 + 5 = 86$

32. A.
The pattern is -
(45030 / 5) - 6 = 9000
(9000 / 5) - 5 = 1795
(1795 / 5) - 4 = 355
(355 / 5) - 3 = 68
(68 / 5) - 2 = 11.6

33. D.
Pattern followed is -
949 * 0.2 = 189.8
189.8 * 0.3 = 56.94
56.94 * 0.4 = 22.776
22.776 * 0.5 = 11.388
11.388 * 0.6 = 6.8328

34. D.
248 – 217 = 31
217 – 188 = 29
188 – 165 = 23
[Consecutive prime number]
∴ ? = 165 – 19 = 146

35. B.
As the ratio of their new shares is 9:8:6, their respective shares are:
A's share = (9/23) × 2300 = Rs.900
B's share = (8/23) × 2300 = Rs.800
C's share = (6/23) × 2300 = Rs.600
So, A's original share = 900 – 120 = Rs.780
B's original share = 800 – 150 = Rs.650
C's original share = 600 – 90 = Rs.510
So, ratio of their original shares = 780:650:510 = 78:65:51
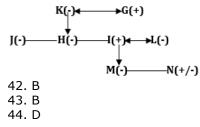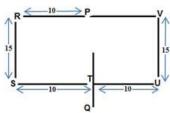
36. B.

Sushil	Sneha	Teena	Mohan	Varun	Aman	Vikas	Nilesh
North	North	South	South	North	South	North	North

37. C.
38. B.
39. A.
40. C.
41. D.
+ is used for male and – for female.

42. B
43. B
44. D
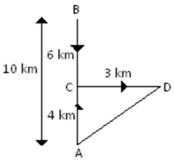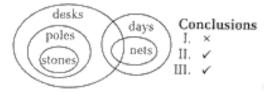
45. B.
The movement is as shown in figure.
AC = (AB – BC) = (10 – 6) km = 4 km. Clearly, D is to the North-east of A.
So, Kunal's distance from starting point A = AD = $\sqrt{AC^2 + CD^2} = \sqrt{4^2 + 3^2} = \sqrt{25} = 5$ km. So, it is 5 km to the North-east of his starting point.
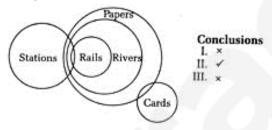
46. C.


Only II and III follow

47. C.

Only II follows

48. B.

49. E.

50. C.
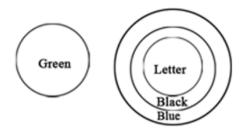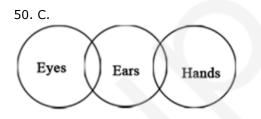
51. D.

52. C.
A>B>R<S>T>P
I. T>R, false
II. B<P, false
III. S<P, false

53. E.
From the given statement,
M ≥ N = O > P < Q
No information is obtained about the relationship between Q and O or between N and Q.
Also, O>M is definitely false.
O can be greater than, lesser than or equal to Q.
II and III cover only 2 conditions.
Hence none of the conclusions is true.

54. C.
After combining, we get
R≤P=Q<G=A>M=B≥D
I. G>B, TRUE
II. Q≥D NOT TRUE
III. A>P TRUE

55. C.
After combining, we get
B≥G>A>C≥V=P>K=D
I. G ≥ C, NOT TRUE
II. V>K, TRUE
III. D< G, TRUE
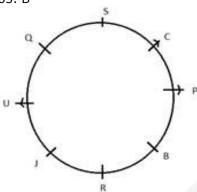
56. B.

enjoy	the	places	of	India	neat	and	clean	is	country	enviourment
Pi/ba	Pi/ba	da	ni	ea	ma	ri	la	Ki/sa	Ki/sa	zi

57. C
58. A
59. D
60. B
61. C
62. C
63. B
64. B

65. B

U, P, and C faces outside the centre and rest facing the centre.

66. A.

8	E	USA
7	A	China
6	H	Russia
5	D	Japan
4	B	UK
3	G	India
2	C	Canada
1	F	France

67. B.
68. D.
69. E.
70. C.
71. D.
Water-borne diseases are the most recurrent causes of infants all over the world
72. E.
In this case energy of sound waves travel gradually but their intensity deflates as they travel further from their source.

73. B.
It is based on analytical data

74. D.
75. B.
76. E.
77. D.
78. A.
79. E.
80. C.
81. D.
82. E.
83. A.
84. C.
85. C.
86. B.
87. E.
88. C.
89. A.
90. C.
91. E.
92. D.
93. A.
94. D.
95. B.
96. B.
97. C.
98. D.
99. E.
100. A.

***