SBI PO Preliminary Grand Test –SPP-170451

HINTS & SOLUTIONS

1.(2) The answer to this question can be found in the beginning phase of 2nd, 3rd and 5th paragraph. Option (2) is the right answer. It explains the two theories based on different magnetic phenomenon. The first one investigated by Gary Prinz and the other being the MTJ's which are being investigated by researchers at chip makers.

2.(3) The answer to this question can be found in the second sentence of the 4th paragraph. Option (3) is the only apt choice.

3.(1) The second sentence of the 6th paragraph revels option (1) as the right answer. The statement "In place of conducting wires, a magnetic processor would have rows of magnetic dots, each of which could be polarized in one of two directions" reveals the right choice.

4.(3) The answer to this question can be inferred from the 2nd sentence of the 7th paragraph. Option (3) is the right choice.

5.(4) Referring to the last sentence of the 6th paragraph reveals option (4) as the right choice.

6.(4) R Cwburn and M Welland are trying to build the magnetic chip that could store and manipulate information. option (4) is the right choice.

7.(2) Option (2) is the right choice. This can be found from the latter part of the 8th paragraph "they fed a signal in at one end of the chain of dots and used a second signal to control whether it propagated along the chain".

8.(1) Option (2) is clearly stated in the opening lines of the passage while the opening lines of the 6th paragraph confirm option (2) as well. In the same way the concluding lines of the 4th paragraph confirm option (4). While the second sentence of the 1st paragraph helps us identify option (1) as the right answer.

9.(3) Magnetized means a physical phenomenon produced by the motion of electric charge, which results in attractive and repulsive forces between objects and allure means the quality of being powerfully and mysteriously attractive or fascinating.

10.(4) Pioneered means develop or be the first to use or apply (a new method, area of knowledge, or activity) and spearhead means an individual or group chosen to lead an attack or movement.

11.(4) as successful...should be followed by "as" not "than"

12.(5) No error

13.(3) "has" should be replaced by "have" because "ocers" is plural.

14.(3) Resignation is singular, so it should be followed by "has" and not "have"

15.(4) Use "measured" in place of "measure" because in Passive voice third form of verb is used.

16.(4) Shipment will "be delayed"

17.(1) "is experiencing" because recession is still in progress this year.

18.(2) "experienced" candidate

19.(5) No error

20.(1) "agricultural" should be used.

21.(3) 22.(1)

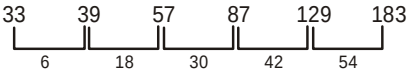
23.(5) 24.(4)

25.(2) 26.(2)

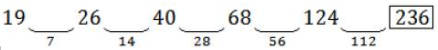
27.(4) 28.(2)

29.(5) 30.(3)

31.(1)



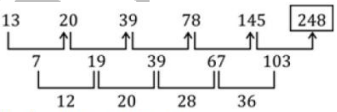
32.(3)



33.(5) The pattern is +26, –11, +26, –11, +26, –11....
Therefore, ? = 73 + 26 = 99

34.(5) The pattern is +1.5, +2.5, +3.5, +4.5 .....

35.(4)



36.(2)
$I. x^2 - 14x + 48 = 0$
$\Rightarrow x^2 - 8x - 6x + 48 = 0$
$\Rightarrow x(x-8) - 6(x-8) = 0$
$\Rightarrow (x-6)(x-8) = 0$
$\Rightarrow x = 6, 8$
$II. y^2 + 6 = 5y$
$\Rightarrow y^2 - 5y + 6 = 0$
$\Rightarrow y^2 - 3y - 2y + 6 = 0$
$\Rightarrow y(y-3) - 2(y-3) = 0$
$\Rightarrow (y-2)(y-3) = 0$
$\Rightarrow y = 2, 3$
$\therefore x > y$

37.(3)
$I. x^2 + 9x + 20 = 0$
$\Rightarrow x^2 + 5x + 4x + 20 = 0$
$\Rightarrow x(x+5) + 4(x+5) = 0$
$\Rightarrow (x+4)(x+5) = 0$
$\Rightarrow x = -4, -5$
$II. y^2 + 7y + 12 = 0$
$\Rightarrow y^2 + 4y + 3y + 12 = 0$
$\Rightarrow y(y+4) + 3(y+4) = 0$
$\Rightarrow (y+3)(y+4) = 0$
$\Rightarrow y = -3, -4$
$\therefore x \leq y$

38.(3)
$I. x^2 = 529$
$\Rightarrow x^2 - 529 = 0$
$\Rightarrow (x-23)(x+23) = 0$
$\Rightarrow x = 23, -23$
$II. y = \sqrt{529}$
$y = 23$
$\therefore x \leq y$

39.(1)
$I. 2x + 3y = 14$
$II. 4x + 2y = 16$
On (i) $\times 2 - (ii)$
$x = \frac{5}{2}$
$y = 3$
$\therefore x < y$

40.(4) I. $x^2 - 1 = 0$
$\Rightarrow (x+1)(x-1) = 0$
$\Rightarrow x = -1, 1$
II. $y^2 + 3y + y + 3 = 0$
$\Rightarrow y^2 + 3y + y + 3 = 0$
$\Rightarrow y(y+3) + 1(y+3) = 0$
$\Rightarrow (y+1)(y+3) = 0$
$\Rightarrow y = -1, -3$
$\therefore x \geq y$

41.(2) Male applicants from China = $25000 \times 5 \times \frac{3}{4} = 93,750$
Male applicants from USA = $25,000 \times 40 \times \frac{5}{8} = 6,25,000$
Male applicants UK = $25,000 \times 30 \times \frac{2}{5} = 3,00,000$
Male applicants from Canada = $25,000 \times 10 \times \frac{1}{2} = 1,25,000$
Male applicants from France = $25,000 \times 15 \times \frac{8}{15} = 2,00,000$
Total male applicants = 13,43,750
$\therefore$ Total female applicants = 11,56,250
Required ratio = $\frac{11,56,250}{13,43,750} = 37 : 43$

42.(4) Male applicants from France & Canada = 1,25,000 + 2,00,000 = 3,25,000
Female applicants from USA = $25,000 \times 40 \times \frac{3}{8} = 3,75,000$
Female applicants from UK = $25,000 \times 30 \times \frac{3}{5} = 4,50,000$
Total female applicants from both countries = 8,25,000
Hence, Difference = 5,00,000
$\therefore$ required value = $\frac{5,00,000}{8,25,000} \times 100 = 60.6\%$ less

43.(1) Total rejections from France and China = $\frac{2}{5} \times 25,000 \times 20 = 2,00,000$
$\therefore$ No. of accepted files = $25000 \times \frac{3}{5} \times 20 = 3,00,000$
No. of female applicants from both countries = $25,000 \times \left[15 \times \frac{7}{15} + 5 \times \frac{1}{4}\right]$
$= 33 \times 6250 = 2,06,250$
Desired difference = $3,00,000 - 2,06,250 = 93,750$

44.(3) New total applications for CHINA = $25,000\left[5 + 40 \times \frac{35}{100}\right]$
= 4,75,000
New composition = $\frac{4,75,000}{25,00,000} \times 100 = 19\%$ applications for China

45.(5) Avg. Number of males applicants from all countries = $\frac{13,43,750}{5} = 2,68,750$
Total female applicants from UK & USA = 8,25,000
Desired percentage = $\frac{2,68,750}{8,25,000} \times 100 = 32.58 \approx 33\%$

46.(2) Required average area
$= \frac{1}{5}(82 + 78 + 50 + 45 + 56) \times \frac{120 \times 90}{360}$
$= 1866\ m^2$

47.(1) Required percentage
$= \frac{82 - 50}{82} \times 100 = \approx 39\%$

48.(4) Required difference
$= |(56 + 78) - (45 + 49)| \times \frac{120 \times 90}{360}$
$= \frac{40 \times 120 \times 90}{360} = 1200\ m^2$

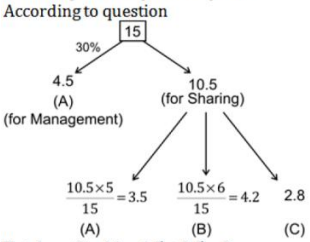
49.(5) Required ratio $= \frac{56}{49} = \frac{8}{7}$

50.(4) $66\frac{2}{3}\%$ of area covered by rice = $\frac{82}{360} \times 120 \times 90 \times \frac{2}{3}$
$= 1640\ m^2$
$\because$ In 1640 m^2 production of rice = 125 quintals
$\therefore$ in (82×30) m^2 production of rice = $\frac{125}{1640} \times 82 \times 30$
= 187.5 quintals

51.(2) n(skill) = 70
n(interview) = 65
n(Both skill & *Interview*) = 100 − 27 = 73
$\therefore P(Skill \cup Interview) = 70 + 65 - 73 = 62\%$
$62\% \rightarrow 248$
$\therefore 100\% \rightarrow \frac{248}{62} \times 100 = 400$

52.(1) Given (3M + 5W) 80 = (2M + 78C) 12 D
$\Rightarrow$ 24M + 40 W = 24 M + 84 C
$\Rightarrow$ 40W = 84 C
Or 21 C = 10 W
$\therefore$ 10 women can do as much work in a day as 21 children.

53.(1) Ratio of their investment = 5 : 6 : 4
Let total profit be (5 + 6 + 4) = 15
According to question



Total profit of A = 4.5 + 3.5 = 8
Total profit of (B + C) = 4.2 + 2.8 = 7
Difference = 8 − 7 = 1 → 200
$\therefore$ 15 (Total profit) → 200 × 15 = Rs. 30,00

54.(5) (S + B + C) = 240 kg
(S + B + C + K) = 324 kg.....(i)
$\therefore$ K = 81 × 4 − 240 = 84 kg
R = 84 +2 = 86 kg
Now Given,
B + C + K + R = 83 × 4 = 332 .....(iii)
From (i) & (ii)
R − S = 8
S = 86 − 8 = 78 kg.

55.(1) $\frac{200 \times 72}{\frac{1}{2}} = \frac{x(120-72)}{\frac{1}{2}}$
$\Rightarrow 14,400 = 48x$
$\Rightarrow x = 300$
Extra men to be employed = 300 − 200 = 100 men

56.(4) A ——— x ——— B
$S_{UP} = 4 : S_{down} = 8$
$\frac{x}{4} + \frac{x}{8} = \frac{45}{60}$
$\Rightarrow \frac{3x}{8} = \frac{45}{60}$
$\Rightarrow x = 2$km
AB = 2 km

57.(3) C = 240
$M = 240\left(\frac{120}{100}\right) = 288$
S = 264
Discount % = $\frac{(288-264)}{288} \times 100 = 8\frac{1}{3}\%$

58.(4) Amount earned is equal to his gain in interest
He earned (36 − 24) = 12% of 5500 in 1 year
$\therefore$ Interest he earned = $\frac{5500 \times 12 \times 2}{100} = Rs.\ 1320$

59.(3) From 2nd year to 3rd year
Interest earned on Rs. 5850 = 5908.50 − 5850 = 58.5
$R = \frac{58.5 \times 100}{5850 \times 1} = 1\%$

60.(5) Ramu : Pappe : Buddha = 40 × 10 : 50 × 5 : 70 × 4
= 400 : 250 : 280
= 40 : 25 : 28
Given : 40 → 80
$\therefore$ (40 + 25 + 28) → 186

61.(1) $\left(\frac{24}{9}\right)^2 \times \frac{399}{39} \div \frac{41}{899} = \frac{576}{80} \times \frac{400}{40} \times \frac{900}{40} = 1620$

62.(3) $\approx 68 \times 14 - 14 \times 13 = 770$

63.(4) $\approx 5467 - 3245 + 1123 - 2310 = 1035$

64.(3) $\approx 40 \times 6 - 250 + 700 = 690$

65.(2) $= \frac{52001 \times 29}{61 \times 41} = 600$

66.(3) I. $H = K \geq J \geq L = F \geq G$ (False)
II. $H = K \geq J \geq L = F \geq G$ (False)

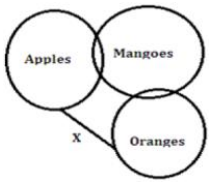
67.(2) I. U < T > S > R (False)
II. T > S > R > P (True)

68.(2) I. $Z < W \leq V \leq U$ (False)
II. $W \leq V \leq U < T$ (True)

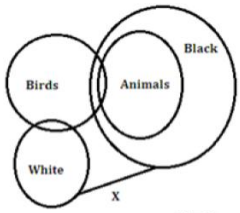
69.(1) I. P > O > M > L > K (True)
II. N > M < O (False)

70.(4) I. B < A > D ≤ E (False)
II. C > A > D ≤ E (False)

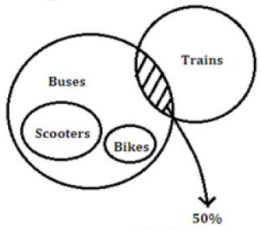
71.(4)



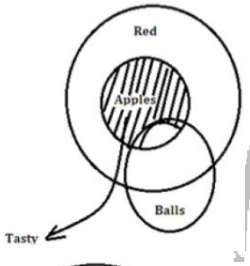
72.(1)



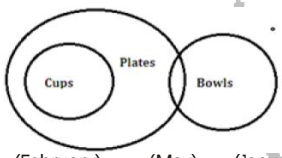
73.(2)



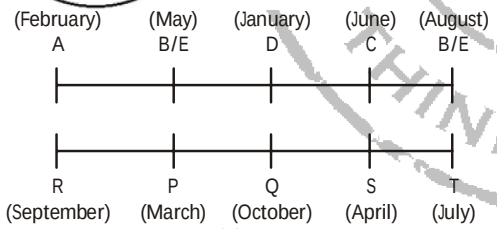
74.(1)



75.(5)



76-80.



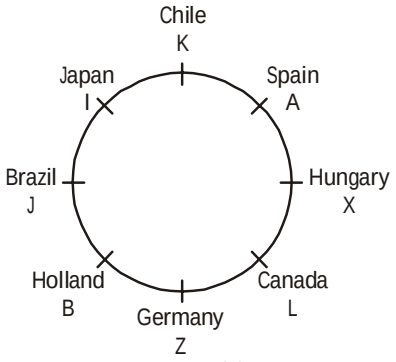
76.(5) 77.(3)
78.(4) 79.(3)
80.(2)

81-85.

Floor	Persons	Games
7	Q	Football
6	P	Basketball
5	U	Kabaddi
4	S	Tennis
3	T	Carrom
2	V	Kho Kho
1	R	Dodgeball

81.(4) 82.(1)
83.(2) 84.(3)
85.(5)

86-90.



86.(1) 87.(5)
88.(3) 89.(5)
90.(1)

91.(2) I. is not necessarily true but
II. is obviously true ; otherwise why will ads like this be given?

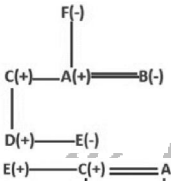
92.(1) The notice given by the XYZ deportment clearly mentions the ill-effect of drinking. The motive behind mentioning the ill-effect must be to restrict drinkers from drinking.
So, I must be assumed.
But II is not implicit.

93.(4) The statement does not mention the specific reason behind the view of the speaker. Hence, both I and II are not implicit.

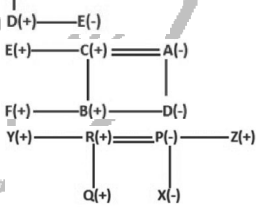
94.(5) Both I and II must be assumed.

95.(1) FAO made such a declaration because it must be assuming the problem quite alarming. Hence I is assumed but II is not necessarily valid.

96.(2)

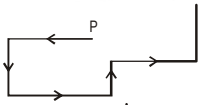


97.(4)



98.(2)

99.(1)



100.(5)