

SBI PO Preliminary Grand Test –SPP-180420

HINTS & SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTIONS

1. (2) The trend of substantial increase in value of stocks
2. (4) The markets in both the group of countries have shown upward trend
3. (4) It prolonged the low interest rate regime
4. (1) All the three
5. (3) Either (B) or (C) only
6. (4) a transition from under-development to enrichment
7. (4) The word boost (verb) means : make something increase, become better or more successful. Therefore, the antonym of the word boosted should be dam-aged.
8. (2) The word Plunge (verb) means decrease (in prices, temperatures etc.) suddenly and quickly. Therefore the antonym of the word Plunged should be increased.
- 9.(3) The word buoyant (Adjective) means : tending to increase or stay at a high level (of prices, business activity etc.), usually showing financial success. Therefore its synonym should be upbeat.
- 10.(4) The word Spur (verb) means to encourage somebody to do something or to encourage them to try harder to achieve something. Therefore, the synonym of the word spurred should be stimulated.
- 11.(4) presently facing
- 12.(3) will fall to as low as
- 13.(2) In all likelihood
- 14.(3) to assess

- 15.(1) Among the key competencies
- 16.(3) 17.(2)
- 18.(1) 19.(5) 20.(4)
- 21.(1) 22.(5)
- 23.(2) 24.(4) 25.(3)
- 26.(1) 27.(1)
- 28.(5) 29.(2) 30.(4)
31. (3)

The pattern is :

$$148 + 2^2 = 148 + 4 = 152$$

$$152 + 3^2 = 152 + 9 = 161$$

$$161 + 4^2 = 161 + 16 = 177$$

$$177 + 5^2 = 177 + 25 = \boxed{202}$$

$$202 + 6^2 = 202 + 36 = 238$$

32. (2) The pattern is :

$$4 \times \frac{1}{2} = 2$$

$$2 \times 1 = 2$$

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

$$3 \times 2 = 6$$

$$6 \times \frac{5}{2} = \boxed{15}$$

33. (4) The pattern is :

$$339 + 1 \times 16 = 339 + 16 = 355$$

$$355 - 2 \times 16 = 355 - 32 = 323$$

$$323 + 3 \times 16 = 323 + 48 = 371$$

$$371 - 4 \times 16 = 371 - 64 = 307$$

$$307 + 5 \times 6 = 307 + 80 = \boxed{387}$$

34. (4) The pattern is :

$$5 \times 3 - 1 = 15 - 1 = 14$$

$$14 \times 3 - 2 = 42 - 2 = 40$$

$$40 \times 3 - 3 = 120 - 3 = 117$$

$$117 \times 3 - 4 = 351 - 4 = 347$$

$$347 \times 3 - 5 = 1041 - 5 = \boxed{1036}$$

35. (4) The pattern is :

$$12 \times 2 = 24$$

$$24 \times 4 = 96$$

$$96 \times 6 = 576$$

$$576 \times 8 = \boxed{4608}$$

$$4608 \times 10 = 46080$$

- 36.(2) Volume of the cylindrical tank = $\pi r^2 h$

Where r = radius of the base and
h = height of the tank.

From statement II, $\pi r^2 = 616$

From statement II, h = 28 metre

Hence, we can determine the capacity of the tank.

- 37.(4) Let the length of the train be x metre

From statements I and II,

$$\text{Speed of train} = \frac{x}{18} = \frac{2x}{36}$$

It gives no result.

From statements I and III,

Speed of train = $\frac{300}{18} = \frac{50}{3}$ metre/second.

From statements II and III

Speed of train = $\frac{300+300}{36} = \frac{50}{3}$ metre/second.

38.(5) Question cannot be answered even with the information in all three statements.

39.(2) Let the two digit number be $10x + y$.

From statement I,

$10y + x = 10x + y + 9$

$9(y - x) = 9$

$y - x = 1$ (i)

From statement II,

$x + y = 7$ (ii)

From statement III,

$x - y = 1$ or $y - x = 1$ (iii)

From statements I and II,

The number obtained = 34

From statements II and III, Numbers = 34 or 43

Hence, we get no unique answer.

40.(3) From statements II and III, Profit on each article = $765 - 632 = \text{Rs. } 133$

From statements I, II and III, Number of articles sold

$= \frac{1596}{133} = 12$

41.(1) Required % increase in operating profit

$= \frac{160 - 130}{130} \times 100 = 23\%$

42. (2) Interest in 1990 – 91 = 30% of 130 = Rs. 39 lakh

Interest in 1991 – 92 = 40% of 160 = Rs. 64 lakh

Difference = $64 - 39 = 25$ lakh

43.(4) Total interest = 30% of 130 + 40% of 160 Rs. 103 lakh

Borrowed funds $\times 20\% = 103$

Borrowed funds = $103 \times 100/20 = 515$ lakh

44. (4) Retained profit in 1990 – 91 = (25% of 130) = 14.515 lakh

Retained profit in 1991-92 = (20% of 160) = Rs. 32 lakh

Change = $(32.5 - 32)/32.5 = 1.5\%$ decrease

45.(3) Total dividend earned by shareholders in 1991 – 92 = (8% of 160) = 12.8 lakh

46. (1) Let the numbers be : $a < b < c$

According to the question, $\frac{a+b+c}{3 \times 3} = c - 8$

$\Rightarrow a + b + c = 9c - 72$ ----(i)

Again, $a + b = 16$

$\therefore 16 + c = 9c - 72 \Rightarrow 9c - c = 72 + 16 \Rightarrow 8c = 88 \Rightarrow c = 11$

47.(5) Let the amount invested in scheme A be Rs. x .

Case I

S.I. = $\frac{\text{Principal} \times \text{Rate} \times \text{Time}}{100} = \frac{x \times 8 \times 14}{100} = \text{Rs. } \frac{112x}{100}$

Case II

Amount invested in scheme B

= Rs. $\left(x + \frac{112x}{100}\right) = \text{Rs. } \left(\frac{100x + 112x}{100}\right) = \text{Rs. } \frac{212x}{100}$

$\therefore \text{C.I.} = P \left[\left(1 + \frac{R}{100}\right)^T - 1 \right]$

$= \frac{212x}{100} \left[\left(1 + \frac{R}{100}\right)^2 - 1 \right] = \frac{212x}{100} \left(\frac{121}{100} - 1 \right) = \frac{212x \times 21}{10000}$

$\therefore \frac{212x \times 21}{10000} = 6678 \Rightarrow \frac{6678 \times 10000}{212 \times 21} = \text{Rs. } 15000$

48. (1) 4 years ago,

A's age = $10x$ years

B's age = $3x$ years

A's present age = $(10x + 4)$ years

B's present age = $(3x + 4)$ years

According to the question,

$\frac{10x + 4 + 8}{2} = (3x + 4 + 8) = -2$

$\Rightarrow 3x + 12 - (5x + 6) = 2$

$\Rightarrow 3x + 12 - 5x - 6 = 2 \Rightarrow 6 - 2x = 2$

$\Rightarrow 2x - 6 - 2 = 4 \Rightarrow x = 2$

\therefore B's present age = $3x + 4 = 3 \times 2 + 4 = 10$ years

Pia's monthly salary = Rs. $5x$

Percentage expenditure by Pia on Mother + Tuition fee + payment of debt

= $60 + 15 + 18 = 93\%$

Expenditure on shopping = 7%

$\therefore 5x \times \frac{7}{100} = 2100 \Rightarrow 5x \times 7 = 21000$

$\Rightarrow x = \frac{21000}{5 \times 7} = 6000$

\therefore Som's monthly salary = $4x = 4 \times 6000 = \text{Rs. } 24000$

According to the question, 18×16 women = 24×18 children

$\Rightarrow 2$ women = 3 children

$\therefore 8$ women + 16 children

= $(12 + 16)$ children = 28 Children

$\Rightarrow \frac{M_1 D_1}{W_1} = \frac{M_2 D_2}{W_2} \Rightarrow \frac{24 \times 18}{1} = \frac{28 \times 9}{W_2}$

$\Rightarrow W_2 = \frac{28 \times 9}{24 \times 18} = \frac{7}{12}$

\therefore Remaining work = $1 - \frac{7}{12} = \frac{5}{12}$

This part of work is done by 10 men.

$\frac{M_1 D_1}{W_1} = \frac{M_2 D_2}{W_2} \Rightarrow \frac{12 \times 20}{1} = \frac{10 \times D_2}{\frac{5}{12}}$

$\Rightarrow 10 \times D_2 = 12 \times 20 \times \frac{5}{12} = 100 \Rightarrow D_2 = \frac{100}{10} = 10$ days

Eq.-I: $5x^2 + 4\sqrt{10}x + 8 = 0$

$\Rightarrow 5x^2 + 2\sqrt{10}x + 2\sqrt{10}x + 8 = 0$

$\Rightarrow \sqrt{5}x(\sqrt{5}x + 2\sqrt{2}) + 2\sqrt{2}(\sqrt{5}x + 2\sqrt{2}) = 0$

$\Rightarrow (\sqrt{5}x + 2\sqrt{2})(\sqrt{5}x + 2\sqrt{2}) = 0 \Rightarrow x = \frac{-2\sqrt{2}}{\sqrt{5}}$

Eq.-II: $4\sqrt{3}y^2 + 5y - 2\sqrt{3} = 0$

$\Rightarrow 4\sqrt{3}y^2 + 8y - 3y - 2\sqrt{3} = 0$

$\Rightarrow 4y(\sqrt{3}y + 2) - \sqrt{3}(\sqrt{3}y + 2) = 0$

$\Rightarrow (\sqrt{3}y + 2)(4y - \sqrt{3}) = 0$

$\Rightarrow y = \frac{-2}{\sqrt{3}}, \frac{\sqrt{3}}{4}$

\therefore Relationship can't be established.

Eq.-I: $x^2 - 6\sqrt{3}x - 48 = 0$

$\Rightarrow x^2 + 2\sqrt{3}x - 8\sqrt{3}x - 48 = 0$

$\Rightarrow x(x + 2\sqrt{3}) - 8\sqrt{3}(x + 2\sqrt{3}) = 0$

$\Rightarrow (x + 2\sqrt{3})(x - 8\sqrt{3}) = 0$

$$\Rightarrow x = -2\sqrt{3}, 8\sqrt{3}$$

Eq.-II: $y^2 - \sqrt{2}y - 24 = 0$

$$\Rightarrow y^2 + 3\sqrt{2}y - 4\sqrt{2}y - 24 = 0$$

$$\Rightarrow y(y + 3\sqrt{2}) - 4\sqrt{2}(y + 3\sqrt{2}) = 0$$

$$\Rightarrow (y + 3\sqrt{2})(y - 4\sqrt{2}) = 0$$

$$\Rightarrow y = -3\sqrt{2}, 4\sqrt{2}$$

∴ Relationship can't be established.

53.(3) Eq.-I: $x^2 + 17x - 234 = 0$

$$\Rightarrow x^2 + 26x - 9x - 234 = 0$$

$$\Rightarrow x(x + 26) - 9(x + 26) = 0$$

$$\Rightarrow (x + 26)(x - 9) = 0$$

$$\Rightarrow x = -26, 9$$

Eq.-II: $y^3 = 2197 \Rightarrow y = 13$

∴ $x < y$.

54. (3) Eq.-I: $56x^2 + 37x + 6 = 0$

$$\Rightarrow 56x^2 + 16x + 21x + 6 = 0$$

$$\Rightarrow 8x(7x + 2) + 3(7x + 2) = 0$$

$$\Rightarrow (7x + 2)(8x + 3) = 0 \Rightarrow x = \frac{-2}{7}, \frac{-3}{8}$$

Eq.-II: $66y^2 - 13y - 4 = 0$

$$\Rightarrow 66y^2 - 24y + 11y - 4 = 0$$

$$\Rightarrow 6y(11y - 4) + 1(11y - 4) = 0$$

$$\Rightarrow (11y - 4)(6y + 1) = 0 \Rightarrow y = \frac{4}{11}, -\frac{1}{6}$$

∴ $x < y$.

55. (3) Eq.-I: $x^2 + 4x + 4 = 0$

$$\Rightarrow x^2 + 2x + 2x + 4 = 0$$

$$\Rightarrow x(x + 2) + 2(x + 2) = 0$$

$$\Rightarrow (x + 2)(x + 2) = 0 \Rightarrow x = -2$$

Eq.-II: $y^2 - 8y + 16 = 0$

$$\Rightarrow y^2 - 4y - 4y + 16 = 0$$

$$\Rightarrow y(y - 4) - 4(y - 4) = 0$$

$$\Rightarrow (y - 4)(y - 4) = 0 \Rightarrow y = 4$$

∴ $x < y$.

56.(2) Required ratio = $\frac{(700 + 600 + 720)}{(750 + 560 + 750)} = \frac{2020}{2060}$ i.e. 101 : 103.

57.(1) Total number of students from all the institutes in 2002 = 750 + 640 + 680 + 780 + 740 + 620 + 650 = 4860

Therefore required number of students passed

$$= \frac{70}{100} \times 4860 = 3402.$$

58.(5) Number of students for all the given years in institute B = (640 + 600 + 620 + 660 + 760 + 740 + 700) = 4720.

Total number of students passed = $\frac{60}{100} \times 4720 = 2832$

Hence, average number of students passed

$$= \frac{1}{7} \times 2832 = 404.57 \approx 405$$

59.(4) Required %

$$= \frac{640}{(620 + 580 + 640 + 560 + 650 + 630 + 660)} \times 100\%$$

$$= \frac{640}{4340} \times 100\% \approx 14.75\%$$

60. (3) Required difference = (780 + 700 + 660 + 840 + 720 + 660 + 740) - (740 + 760 + 690 + 790 + 780 + 650 + 680) = 5100 - 5090 = 10.

61.(2) ? = 459 + 3 × 89 [459.008 = 459, 88.862 = 89] = 459 + 267 = 726 = 725

62.(1) ? = (621.52)² = 622 × 622 = 386884

We have taken 622 > 621.52 here

∴ Required answer = 386300.

63.(5) 561204 × 58 = ? × 55555

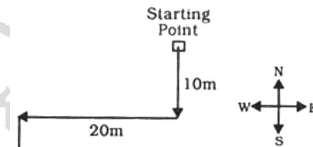
$$\Rightarrow ? = \frac{561204 \times 58}{55555} = 10 \times 58 = 580$$

$$= 586 \quad [\because 561204 \div 55555 = 10]$$

64.(3) ? = $\left(531 \times \frac{444}{100}\right) \div 972 = 2358 \div 972 = 2.5$

65.(4) ? = (9321 + 5406 + 1001) ÷ (498 + 929 + 660) = 15728 + 2087 = 7.5

66. (1)



67. (4)



68.(4)

71-75.

Candidate	Conditions					
	(i) or (A)	(ii) or (B)	(iii)	(iv)	(v)	
Shobha	✓	-	-	✓	✓	✓
Rohan	✓	-	NG	-	✓	✓
Prakash	-	✓	✓	-	✓	✓
Sudha	✓	-	✓	-	✓	x
Amit	✓	-	✓	-	✓	✓

71.(1) Shobha Gupta does satisfy conditions (1), (B), MO, (iv) and (v). Therefore, her case would be referred to Executive Director.

72.(3) It is not mentioned Rohan Maskare worked in which section.

73.(2) Prakash Gokhale does satisfy conditions (A), (ii), (iii), (iv) and (v). Therefore, his case would be referred to General Manager - Advances.

74.(4) Sudha Mehrotra does not satisfy condition (v).

75.(5) Amit Narayan does satisfy all the conditions. Therefore, he can be selected.

76-80.

Position	Person	Music
Director (DR) Executive	P	Hip-Hop
Director (ED)	O	Opera,
Chief Manager (CM)	N	Pop
Senior Manager (SM)	Q	Rock
Manager (MG) Assistant	R	Jazz
Manager (AM)	M	Electronic
Trainee (TE)	S	Classical

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- 76.(3) There is a gap of two persons between R and the one who likes opera. Similarly, there is a gap of two persons between Q and the one who likes classical. There is a gap of two persons between P and the one who likes Rock.
- 77.(1) R works as Manager (MG).
- 78.(5) N and O are more experienced than Q but less experienced than P.
- 79.(4) S works as Trainee (TE).
- 80.(2) N works as Chief Manager (CM) and likes Pop.
- 81-84.

Person	Phone	Service Provider
Anita	Micromax	Tata
Binod	Samsung	Idea
Chandni	Nokia	Uninor
David	Spice	Airtel
Ejaj	Videocon	Reliance
Fazal	Blackberry	Vodafone
Gauri	Motorola	Aircel

- 81.(2) 82.(4)
- 83.(5) 84.(2)
- 85-90. (i) All building are houses → Universal Affirmative (A-type).
- (ii) Some oceans are seas → Particular Affirmative (I-type).
- (iii) No house is an apartment → Universal Negative (E-type).
- (iv) Some houses are not apartments → Particular Negative (O-type).

85-86. All buildings are houses.

No house is an apartment.
 $A + E \Rightarrow$ E-type of Conclusion
 "No building is an apartment." (A)
 No house is an apartment.

All apartment are flats.
 $E + A \Rightarrow$ O_1 -type of Conclusion
 "Some flats are not houses." (B)
 No building is an apartment.

All apartments are flats.
 $E + A \Rightarrow$ O_1 -type of Conclusion
 "Some flats are not buildings." (C)

- 85.(2) Conclusion A is Conclusion II.
- 86.(1) Only I follows.
- 87-88. Some seas are oceans.

All oceans are rivers.
 $I + A \Rightarrow$ I-type of Conclusion
 "Some seas are rivers." (A)
 All oceans are rivers.

No river is a canal.
 $A + E \Rightarrow$ E-type of Conclusion
 "No ocean is a canal." (B)

Some seas are rivers.

- No river is a canal.
 $I + E \Rightarrow$ O_1 -type of Conclusion
 "Some canals are not seas." (C)
- 87.(1) All oceans are rivers.
 Its converse "Some rivers are oceans", is true.
 Thus, Conclusion I is true.
- 88.(5) Conclusion B is Conclusion I.
 Conclusion A is Conclusion II.
- 89-90. No day is night.

All nights are noon.
 $E + A \Rightarrow$ O_1 -type of Conclusion
 "Some noon are not days." (A)
 All nights are noon.

No noon is an evening.
 $A + E \Rightarrow$ E-type of Conclusion
 "No night is an evening." (B)

- 89.(4) None follows.
- 90.(5) Both I & II follows.
- 91.(4) From both the statements never ever

go there → na ja ni ho

go there and come back

→ ma ho sa ni da

The code for 'never' is either 'na or 'ja'.

- 92.(5) From both the statements, $K > J > W > P > M, T$
- 93.(5) From both the statements,

5 \$ # 3

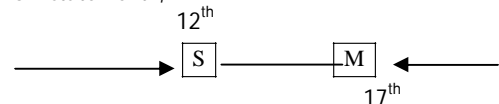
→ Flowers are really good

7 # 3 5

→ good flowers are available

Therefore, \$ \Rightarrow really

- 94.(5) From both the statements, P and T are daughters of J. M is son of J.
- 95.(1) From statement I,



50 – 29 = 21

- 96.(2) Option (2) is implicit as keeping in mind people's desire and hope of positive response, the company uses a phrase like "a hassle-free holiday package" in the advertisement.
- 97.(3) We can conclude only that those who do not take dowry respect womanhood.
- 98.(2) 99.(4) 100.(1)