IBPS PO Preliminary Grand Test –IPP-181038
HINTS & SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTIONS

1. (3)   It has not been mentioned among the tasks.
2. (5)   The Army should be used only in emergency circumstances, where all other means fail.
3. (1)   Because the line between external and internal security has got blurred.
4. (4)   The Army is the true model in the country of nationalism and secularism.
5. (3)   The Army should be insulated against tasks of internal security to avoid its politicization and communalization.
6. (4)   Because it had taken a policy decision after Blue Star not to communalise its rank and file.
7. (2)   **8.** (3)
9. (2)   **10.** (5)
11. (1)   **12.** (4)
13. (3)   **14.** (2)   **15.** (5)
16. (2)   **17.** (1)
18. (3)   **19.** (2)   **20.** (3)
21-25.   D A G C F E B
21. (2)   **22.** (1)
23. (4)   **24.** (3)   **25.** (4)
26. (2)   **27.** (3)
28. (1)   **29.** (2)   **30.** (5)

31. (4) $x = \sqrt{1369} = \pm 37$ ....(I)

$y = \sqrt[3]{29791} = 31$ ....(II)

$\therefore x \leq y$

32. (3) $\text{equn.}(I) \times 4 + \text{equn}(II) \times 3$

$32x - 12y = 124$
$15x + 12y = 252$
$47x = 376$
$\therefore x = 8$ and from this $y = 11$
$\therefore x < y$

33. (2) $20x^2 - 35x - 44x + 77 = 0$
$5x(4x - 7) - 11(4x - 7) = 0$
$(4x - 7)(5x - 11) = 0$

$x = \frac{7}{4}, \frac{11}{5}$

$4y^2 + 16y - 7y - 28 = 0$
$4y(y+4) - 7(y + 4) = 0$
$(4y - 7)(y + 4) = 0$

$y = -4, \frac{7}{4}$ $\therefore x \geq y$

34. (4) $6x^2 + 8x + 21x + 28 = 0$
$2x(3x + 4) + 7(3x + 4) = 0$
$(3x + 4)(2x + 7) = 0$

$x = -\frac{4}{3}, -\frac{7}{2}$

$6y^2 + 3y + 8y + 4 = 0$
$3y(2y + 1) + 4(2y + 1) = 0$
$(3y + 4)(2y + 1) = 0$

$\therefore y = -\frac{4}{3}, -\frac{1}{2}$ $\therefore x \leq y$

35. (5) $x^2 + 9x - 6x - 54 = 0$
$x(x + 9) - 6(x + 9) = 0$
$x = 6, -9$
$y^2 + 11y - 7y - 77 = 0$
$y(y + 11) - 7(y + 11) = 0$
$(y - 7)(y + 11) = 0$
$\therefore y = 7, -11$
i.e. No relation between x & y

36. (2) $\dfrac{24 \times 8000}{1000} = \text{Rs.}1920$

37. (5)   Angle $= \dfrac{16}{100} \times 360 = \dfrac{288}{5} = 57\dfrac{3}{5}°$

38. (3) $\dfrac{14}{100} \times 8000 = \text{Rs.}1120$

39. (3)   Expenditure on education = 18% of 8000

$= 8000 \times \dfrac{18}{100} = \text{Rs.}1440$

Medical expenditure = 16% of 8000

$= 8000 \times \dfrac{16}{100} = \text{Rs.}1280$

$\therefore$ Difference $= 1440 - 1280 = \text{Rs. }160$

40. (4) $12000 \times \dfrac{16}{100} = \text{Rs.}1920$

41. (4) Average number pen drive

$$= \frac{(15 + 7.5 + 15 + 30 + 17.5) \times 1000}{5}$$

$$= \frac{85 \times 1000}{5} = 17000$$

42. (5) Total no. of products produced by company in the year 2006 = 32500

Total no. of products produced by company in the year 2008 = 75000

Total products in both 2006 and 2008
= 32500 + 75000 = 107500

43. (1) No. of CD's produced by company in 2009 = 22500
No. of Keyboards produced by company in 2005 = 25000
Ratio = 22500 : 25000 = 9 : 10

44. (1) Total no. of CD's and Pendrives in 2008
= (25 + 30) × 1000 = 55000
Total no. of Keyboards in the year 2006 = 15000
Difference = 55000 – 15000 = 40000

45. (1) $\text{Req. Area} = \dfrac{1}{4}\left\{ \pi \times (24.5)^2 \right\}$

$$= \frac{1}{4} \times \frac{22}{7} \times 24.5 \times 24.5 = 471.625\,\text{m}^2$$

46. (3) Let the length and breadth of fields are 3x and 2x respectively
area = $6x^2$
Length of field including path = (3x + 6)
Breadth of field including path = (2x + 6)
Area = (3x + 6) (2x + 6) = $6x^2$ + 30x + 36
Area of path = $6x^2$ + 30x + 36 – $6x^2$ = 456
30x = 456 – 36 = 420   x = 14
Length = 3x = 42 m and breadth = 2x = 28 m
Area = 42 × 28 = 1176 m^2

47. (2) Area of ABCD = 96 × 4 = 384 m^2
Area of A'B'C'D' = 78 × 4 = 312 m^2
Area of 1234 = 4 × 4 = 16 m^2
Area of path = 384 + 312 – 16 = 680 m^2
Expenditure = 2.75 × 680 = 1870 rupees

48. (5) Volume of water $= \dfrac{78400}{1000} = 78.4\text{m}^2$

Area of base of tank $= 7 \times 2.8 = 19.6\text{m}^2$

depth of tank $= \dfrac{78.4}{19.6} = 4\text{m}^2$

49. (2) Area of four walls $= \dfrac{510}{0.85} = 600 = 2 \times 6(l+b)$

l + b = 50
Let the length and breadth of room are 7x & 3x respectively
l + b = 50
7x + 3x = 50   x = 5
Length = 35 m, breadth = 15 m.

50. (1) Probability that all 3 balls black $= \dfrac{^5C_3}{^9C_3} = \dfrac{10}{84} = \dfrac{5}{42}$

Out of 42 cases only 5 are favourable and 37 are not favourable.

So, odd against these being all black is $\dfrac{37}{5}$.

51. (3) $P(A) = \dfrac{1}{5}$, $P(\overline{A}) = 1 - \dfrac{1}{5} = \dfrac{4}{5}$

The probability that he will not hit the target in 10 shots is $\left(\dfrac{4}{5}\right)^{10}$.

So, probability that at least once target will be hit = $1 - \left(\dfrac{4}{5}\right)^{10}$.

52. (1) Male teachers who teaches Mathematics

$$= \frac{2}{7} \times \frac{14}{100} \times 2000 = 80$$

Total no. of teachers who teaches $= \dfrac{7}{100} \times 2000 = 140$

% approximately $= \dfrac{80}{140} \times 100 = 57.14 \cong 57$

53. (4) Total no. of teachers in English, History

$$= \left[\frac{7+27}{100}\right] \times 2000 = 34 \times 20 = 680$$

Total no. of teachers in Mathematics and Biology

$$= \left[\frac{14+12}{100}\right] \times 200 = 26 \times 20 = 520$$

Difference = 680 – 520 = 160

54. (5) Total teachers in Biology and History

$$= \frac{47}{100} \times 2000 = 940$$

55. (2) Average no. of teachers

$$= \frac{\frac{64}{100} \times 2000}{3} = \frac{64 \times 20}{3} = 426 \cong 420$$

56. (1) Here the series is:
14 × 1 -1 = 13
13 × 2 - 4 = 22
22 × 3 - 9 = 57
57 × 4 -16 = 212
212 × 5 - 25 = 1035
Hence, the wrong number **is 55**.

57. (3) Here the series is:
217 + 7 = 224
224 -11 = 213
213 + 13 = 226
226 - 17 = 209
209 + 19 = 228
Hence, the wrong number is 210.

58. (5) Here the series is:
$153 + 7^3 = 496$
$496 + 6^3 = 712$
$712 + 5^3 = 837$
$837 + 4^3 = 901$
$901 + 3^3 = 928$
Hence, the wrong number is 495.

59. (2) Here the series is:
11 × 7 - 7 × 5 = 42
42 × 6 - 6 × 6 = 216
216 × 5 - 5 × 7 = 1045
1045 × 4 - 4 × 8 = 4148
4148 × 3 - 3 × 9 = 12417
Hence, the wrong number is 214.

60. (4) Here, the series is

$488 \div 2 + 1.0 = 245$

$245 \div 2 + 1.5 = 124$

$124 \div 2 + 2.0 = 64$

$64 \div 2 + 2.5 = 34.5$

$34.5 \div 2 + 3.0 = 20.25$

Hence, the wrong number is 35

61. (1) $? = (4800 - 120) \times 2.532$

$= 4680 \times 2.532$

$= 11849.7 \approx 11850$

62. (2) $? = \dfrac{1.5129 + 5.4756}{1.11} \times 10 = \dfrac{6.9885}{1.11} \times 10$

$= 6.2959 = 62.959 \approx 63$

63. (4) $? = \left(\dfrac{17}{100} \times 760\right) + \left(\dfrac{57}{100} \times 79\right) + 77.77$

$= 129.2 + 45.03 + 77.77 = 251.82$

≈ 252

64. (4) $\approx 36\sqrt{?} + 32\sqrt{?} = \dfrac{68}{11} \times ?$

If $? = 121$, then $\sqrt{?} = 11$

$\therefore 36 \times 11 + 32 \times 11 = \dfrac{68}{11} \times 121$

$\Rightarrow 748 = 68 \times 11$

$\therefore ? = 121$

65. (1) $? = (3.2)^2 + (9.8)^2 + (8.13)^2 + (4.24)^2$

$= 10.24 + 96.04 + 66.0969 + 1.9776$

$= 190.354 \approx 190$

66. (1) No paper is a flower (E) + All flowers are fruits (A) = E + A = O* → some fruits are not papers. Hence, conclusions II does not follow. Now, All plants are papers are papers (A) + No paper is a flower (E) = A + E = E → No plant is a flower + All flower are fruits (A) = E + A = O* Some fruits are not plants. Thus, possibility of I exists

67. (2) Some schools are buses (I) + All buses are students (A) = I + A = I → Some schools are students. Thus, conclusion II follows. Again, Some books are schools + Some schools are buses = I + I = No conclusion. Therefore I does not follow.

68. (1) No concept is a method (E) + Some method are techniques = E + I O* → Some techniques are not concept. Hence, I follows. But we can't proceed further. Hence conclusion II does not follow.

69. (5) Some trees are roses conversion Some roses are trees. Now, Some roses are trees + All trees are plastics = I + A → I → Some roses are plastics. Hence, conclusion I follows. Again, All fruits are roses implication Some fruits are roses. Hence, conclusion II follows.

70. (1) Some seconds are minutes (I) + No minute is a triangle (E) → I + E → O → Some seconds are not triangle. Hence, I follows. Again No date is a second (E) + Some second are minute = E + I = O* → Some minutes are not dates. Hence, conclusion II does not follow.

71. (5)   **72. (3)**

73. (3)   **74. (4)**   **75. (1)**

76-80.

	Salary	Hospital	Age
F	12000	U	27
M	18000	C	26
K	15000	P/S	30
N	8000	S/P	24
Y	20000	O	29

76. (1)   **77. (5)**

78. (4)   **79. (3)**   **80. (4)**

81. (1) Given statement

$Y \geq R = C = D > M > L$

Check for I: $Y > M$

Means $M < Y$. hence, conclusion I follows. But conclusions II does not follow.

82. (4) Given statement

$@ > G$ .... (i)

$Q < P$ .... (ii)

$I = A \leq 7$ ...... (iii)

Combination is not possible. Hence neither I nor II follows.

83. (4) Given statement

$L > T$ .... (i)

$S \geq N$ .... (ii)

$T = N < Q$ ...... (iii)

Combining (i), (ii) and (iii) we ave,

$L > T = N \leq S$

$T \leq$, Thus, conclusion I does not follow.

Again, $L > T$

Thus, II does not follows.

84-88.

Name of person	works in	Rank according to salary
F	accounts	1st
H	administration	2nd
E	accounts	3rd
K	IT	4th
I	accounts	5th
G	IT	6th
J	IT	7th
D	Administration	8th

84. (2)   **85. (1)**

86. (3)   **87. (4)**   **88. (2)**

89. (2) All are metals in solid states while mercury is a substance in liquid state.

90. (4) Rest contains that numerical digit which is the next number of alphabet.

91. (3) Rest are put according to their positions in alphabetical series. For example – D has 4th positions in alphabetical series. So, it's repeated 4 times.

92-96. what does it name – ku ru mu ju ...(1)

name does the Real – pu ku su ru ...(2)

the Milton have what – su mu ho ro ...(3)

does have or not – kho rob u ru ...(4)

From (1), (2) and (3) does → ru

From (1) and (2) more → ku

From (1) and (3) what → mu

Now From (1) it → ju

From (2) and (3) the → su

From (2) real → pu

From (3) and (4) have → ro

From (3) Milton → ho

From (4) or/not → kho/bu

92. (3)   **93. (3)**

94. (1)   **95. (4)**   **96. (2)**

97. (4) S _ from statements I

S P R Q from statements II

98. (4)

arrival	of	queen	......(i)
tee	gee	see	
transaction	in	bank	......(ii)
tee	jic	uic	
flowers	of	queen	........(iii)
sav	tee	gee	

From (i) and (iii) arrival → see

99. (5) A, B, C, D, E, F

A > C, D	......(i)
E – 3rd rank	......(ii)
F – 2nd, 3rd, 4th or 5th ranks	.......(iii)

No details of B is given

100. (4) L is not son of M

Now, from I and III, L is daughter of M.