IBPS PO Preliminary Grand Test –IPP-170505

HINTS & SOLUTIONS

1. (1) Volatile (Adjective) = likely to change suddenly; easily becoming dangerous; unstable.

2. (4)

3. (3)

4. (3)

5. (2) Pre-requisite (Noun) = something that must exist or happen before something else can hap-pen or be done; precondition.
Look at the sentence :
A degree is an essential prerequisite for employment at this level.

6. (1)

7. (5) Perspective (Noun) = a particular attitude towards some-thing; a way of thinking about something; viewpoint.
Look at the sentence :
His experience abroad provides a wider perspective on the problem.

8. (4)

9. (5)

10. (3) Massive (Adjective) = very large and solid; extremely large or serious.
Meagre (Adjective) = small in quantity and poor in quality; paltry.

11. (1)

12. (4)

13. (5)

14. (5)

15. (2)

16. (4) Here, slashing excise duty (singular) to make it at par with....... should be used.

17. (1) Here, Police officers have refused to divulge the identity of .... should be used.

18. (1) It is a preposition related error. Hence, Attributing rise in inflation partly to .... should be used.

19. (4) Here, the stake in the Swedish company which is a premier car maker .... should be used.
Premium = an extra payment added to the basic rate.
Premier = most important or famous.

20. (4) Here, it is a preposition related error. Hence, over other people's needs .... should be used.
Take precedence over something = to take priority/importance.

21. (2)

22. (1)

23. (3)

24. (1)

25. (2)

26. (3)

27. (5)

28. (2)

29. (5)

30. (1)

31. (4) Revenue generated from magazine Q from :
Printed version = Rs. (201 + 157 + 204 + 232 + 128 + 142) thousand

= Rs. 1064 thousand
Online version = Rs. (145 + 139 + 144 + 139 + 151 + 163) thousand
= Rs. 881 thousand

Percentage decrease = $\frac{(1064 - 881)}{1064} \times 100 = 17\%$

Advertisement revenue generated in :
January $\Rightarrow$ Rs. (169 + 163 + 201 + 145 + 136 + 141 + 209 + 168 + 152 + 209 + 131 + 184) thousand
= Rs. 2008 thousand
June $\Rightarrow$ Rs. 2070 thousand
Difference = Rs. (2070 - 2008) thousand
= Rs. 62 thousand

32. (1) Total revenue generated from magazine R :
Online $\Rightarrow$ Rs. 1123 thousand
Printed $\Rightarrow$ 986 thousand
Required percent

$= \frac{(1123 - 986)}{986} \times 100 = \frac{137 \times 100}{986} = 14$

33. (4) Percentage increase : January - February

$\Rightarrow \frac{403 - 361}{361} \times 100 = 11.6$

April-May

$\Rightarrow \frac{(326 - 285)}{285} \times 100 = 14.4$

34. (3) Ratio of revenue generated from magazine P in July =
Printed : Online
= 204 : 144 = 17 : 12
$\therefore$ Required answer

$=$ Rs. $\left(\frac{17}{12} \times 108000 \right) =$ Rs. 153000

35. (1) Total revenue generated from online version :
February $\Rightarrow$ Rs. 1089 thousand
April $\Rightarrow$ Rs. 1049 thousand
Total revenue
= Rs. (1089 + 1049) thousand = Rs. 2138 thousand
Total revenue generated from printed version :
May $\Rightarrow$ Rs. 924 thousand
June $\Rightarrow$ Rs 1008 thousand
Total revenue = Rs. (924 + 1008) thousand = Rs. 1932 thousand
Required ratio = 2138: 1932 = 1069: 966
Calculations (118-124):
Total students = 1600

Students who study dentistry = $\frac{9}{20} \times 1600 = 720$

Students who study homeopathy = $\frac{11}{20} \times 1600 = 880$

For Dentistry Course

Number of boys = $\frac{5}{8} \times 720 = 450$

Number of girls = $\frac{3}{8} \times 720 = 270$

For boys :

Only English = $\frac{16 \times 450}{100} = 72$

Only Hindi = $\frac{10 \times 450}{100} = 45$

Only Bangla = 45

English + Hindi = $\frac{20 \times 450}{100} = 90$

English + Bangla = 90

Hindi + Bangla = $\frac{10 \times 450}{100} = 45$

English + Hindi + Bangla = 450 - 387 = 63

For Girls :

Only English = $\frac{270 \times 10}{100} = 27$

Only Hindi = $\frac{270 \times 10}{100} = 27$

Only Bangla = $\frac{270 \times 20}{100} = 54$

English and Hindi = $\frac{270 \times 10}{100} = 27$

English and Bangla = $\frac{270 \times 20}{100} = 54$

Hindi and Bangla = $\frac{270 \times 20}{100} = 54$

English + Hindi + Bangla = 270 - 243 = 27

For Homeopathy Course

Boys $\Rightarrow \frac{4}{11} \times 880 = 320$

Girls $\Rightarrow \frac{7}{11} \times 880 = 560$

For Boys :

Only English = $\frac{20 \times 320}{100} = 64$

Only Hindi = $\frac{15 \times 320}{100} = 48$

Only Bangla = $\frac{5 \times 320}{100} = 16$

English and Hindi = $\frac{15 \times 320}{100} = 48$

English and Bangla = $\frac{25 \times 320}{100} = 80$

Hindi and Bangla = $\frac{10 \times 320}{100} = 32$

English + Hindi + Bangla = 320 - 288 = 32

For Girls :

Only English = $\frac{15 \times 560}{100} = 84$

Only Hindi = 84

Only Bangla = $\frac{5 \times 560}{100} = 28$

English and Hindi = $\frac{20 \times 560}{100} = 112$

English and Bangla = 112

Hindi and Bangla = $\frac{15 \times 560}{100} = 84$

English + Hindi + Bangla = 560 - 504 = 56

36. (1) Required answer = 27 + 27 + 27 + 72 + 45 + 90 + 64 + 48 + 48 + 84 + 84 + 112 = 728

37. (2) Required answer = 63 + 27 + 32 + 56 = 178

38. (5) Required per cent $= \frac{54 + 112}{830} \times 100 = \frac{16600}{830} = 20\%$

39. (4) Required answer = 48 + 112 = 160

40. (1) Required ratio = 84 : 80 = 21 : 20

41. (2) 9 × 2 + 1 = 18 + 1 = 19
19 × 2 + 2 = 38 + 2 = 40
40 × 2 + 3 = 80 + 3 = 83
83 × 2 + 4 =166 + 4 = $\boxed{170}$

42. (5) (980 ÷ 2) - 6 = 484
(484 ÷ 2) - 6 = 236
(236 ÷ 2) - 6 = 112
(112 ÷ 2) - 6 = 50
(50 ÷ 2) - 6 = $\boxed{19}$

43. (3) 8 × 1 + 1 = 9
9 × 2 + 2 = 20
20 × 3 + 3 = 63
63 × 4 + 4 = 256
256 × 5 + 5 = 1285
1285 × 6 + 6 = 7710 + 6 = $\boxed{7716}$

44. (4) (1015 ÷ 2) + 0.5 = 507.5 + 0.5 = 508
(508 ÷ 2) + 1 = 254 + 1 = 255
(255 ÷ 2) + 1.5 = 127.5 + 1.5 = 129
(129 ÷ 2) + 2 = 64.5 + 2 = 66.5
(66.5 ÷ 2) + 2.5 = 33.25 + 2.5 = $\boxed{35.75}$

45. (1) 12 × 1 = 12
12 × 1.5 = 18
18 × 2 = 36
36 × 2.5 = 90
90 × 3 = 270
270 × 3.5 = $\boxed{945}$

46. (4) Required time = LCM of 54, 42 and 63 seconds
=2 × 3 × 7 × 3 × 3 = 378 seconds = 6 minutes.

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2 | 54, 42, 63
3 | 27, 21, 63
7 | 9, 7, 21
3 | 9, 1, 3
    3 , 1, 1
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47. (1) $\boxed{\text{Quicker approach}}$

Distance = 30 × 6 = 180 km

Hema's speed = $\frac{180}{4} = 45$ kmph

Required difference $= \left(\frac{180}{4} - \frac{180}{50}\right)$ hour

= (4.5 - 3.6) hour
= 0.9 hour = 54 minutes

48. (5) $\boxed{\text{Quicker approach}}$

The word ARMOUR consists of 6 letters in which R comes twice.

$\therefore$ Required number of arrangements = $\frac{6!}{2!}$

$$= \frac{6 \times 5 \times 4 \times 3 \times 2 \times 1}{2 \times 1} = 360$$

49. (4) | Quicker approach |

Let the number be x.

$\therefore 2x + 3 \times 42 = 238$

$\Rightarrow 2x = 238 - 126 = 112$

$\therefore x = \frac{112}{2} = 56$

$\therefore$ Required sum $= 56 \times 3 + 2 \times 42 = 168 + 84 = 252$

50. (2) | Quicker approach |

Let the number of students in the college be x.

$\therefore (100 - 75 - 12 - 10)\%$ of $x = 15$

$\Rightarrow x \times \frac{3}{100} = 15$

$\Rightarrow x = \frac{15 \times 100}{3} = 500$

51. (1) Number of Mechanical specialists in 2013 = (280 + 360 + 200 + 260 + 320 + 320 + 380) x $\frac{123}{100}$

$= \frac{2120 \times 123}{100} = 2607.6 = 2608$

Number of electronics specialists in 2013 = (220 + 240 + 320 + 140 + 280 + 200 + 280) x $\frac{82}{100}$

$= 1680 \times \frac{82}{100} = 1377.6 = 1378$

Required percentage

$= \frac{2608}{1378} \times 100 = 189\%$

52. (2) Required ratio = (220 + 280 + 340) : (180 + 280 + 320) = 840 : 780 = 14 : 13

53. (3) Number of IT specialists = 1900
Number of Mechanical specialists = 2120
Required difference
= 1900 + 2120 = 4020

54. (4) Total number of IT specialists in institutes R, S, T, U and V in 2013
=

$$\frac{260 \times 112}{100} + \frac{340 \times 115}{100} + \frac{180 \times 118}{100} + \frac{260 \times 121}{100} + \frac{220 \times 110}{100}$$

= 291 + 391 + 212 + 315 + 242 = 1451

55. (1) Total number of students in institute S
= 140 + 260 + 340 = 740
Music : Painting : Cricket = 19 : 8 : 10
Sum of the ratios = 19 + 8 + 10 = 37

$\therefore$ Number of students who like music = $\frac{19}{37}$ x 740 = 380

56. (1) New total investment in schemes M, 0, P and R

$= Rs. \left(\frac{84 \times 145}{100} + \frac{32 \times 155}{100} + \frac{60 \times 150}{100} + \frac{96 \times 140}{100} \right)$ thousand

= Rs. (121.8 + 49.6 + 90 + 134.4) thousand = Rs. 395.8 thousand

57. (1) Total investment by Gautam in schemes M,O, P and R

$= \left[84 \times \frac{54}{100} + \frac{40 \times 32}{100} + \frac{60 \times 300}{100} + \frac{96 \times 64}{100} \right]$ thousand

= Rs. (45.36 + 12.8 + 18 + 61.44) thousand = Rs. 137.6 thousand

After 10% decrease,

Investment = $\frac{137.6 \times 90}{100}$ = Rs. 123.84 thousand

Total investment by Rudra in these schemes
= Rs. (84 + 32 + 60 + 96) thousand - 123.84 thousand
= Rs. (272 - 123.84) thousand = Rs. 148.16 thousand
Ratio = 123.84 : 148.16 = 387 : 463

58. (3) Total investment by Gautam :
=

$\left(\frac{84 \times 54}{100} + \frac{72 \times 60}{100} + \frac{32 \times 40}{100} + \frac{60 \times 30}{100} + \frac{64 \times 40}{100} + \frac{64 \times 96}{100} \right)$ thousand

= Rs. (45.36 + 43.2 + 12.8 + 18 + 25.6 + 61.44) thousand = Rs. 206.4 thousand
Total investment by both in schemes P, Q, R and M
= Rs. (60 + 64 + 96 + 84) thousand = Rs. 304 thousand
Required percent

$= \frac{304}{206.4} \times 100 = 147$

59. (2) Total investment made by both in schemes M, O and P respectively

$= \left(\frac{84 \times 135}{100} + \frac{32 \times 145}{100} + \frac{60 \times 155}{100} \right)$ thousand

= Rs. (113.4 + 46.4 + 93) thou-sand
Total investment made by Gautam in these schemes

$= Rs. \left(\frac{1134 \times 54}{100} + \frac{46.4 \times 40}{100} + \frac{93 \times 30}{100} \right)$ thousand

= Rs. (61.236 + 18.56 + 27.9) thousand = Rs. 107.696 thousand
= Rs. 108 thousand

60.. (3) Total new investment by both

$= Rs. \left[(84 + 72 + 32 + 60 + 64) \frac{125}{100} + 96 \right]$ thousand

$= Rs. \left(\frac{312 \times 125}{100} + 96 \right)$ thousand

= Rs. (390 + 96) thousand = Rs. 486 thousand

Average = $\frac{486}{6}$ = Rs. 81 thousand

61. (1) 84000
62. (1) 380
63. (2) 700
64. (2) 35
65. (2) 125
66. (2) From statement I
A > D > C
There is no information about B and E.
From statement II
B is heavier only than E.
Therefore, A, C and D are heavier than B and E.
Thus, E is the lightest.

67. (5) From statement I
According to his mother, Rajiv was born on 13th, 14th, 15th, 16th or 17th May
From statement II
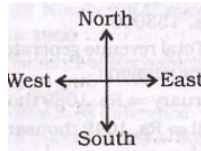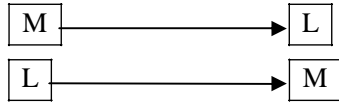According to his father, Rajiv was born 17th, 18th, 19th, 20th, 21st or 22nd May
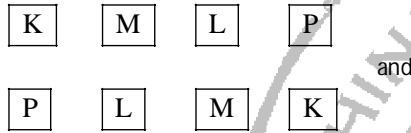From both the statements

Common date $\Rightarrow$ 17th May

68. (1) From statement I
Sonal has only one brother as her mother has only two children.
From statement II
It is not clear how many brother does Sonal have.

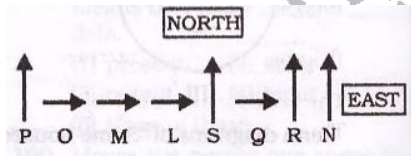69. (4) From statement I

From statement II

and

so on.

70. (3) From statement I

From statement II

(71 – 75):

71. (4) L Is in front of M.
72. (1) The immediate neighbours of O are M and P.
73. (4) Two persons - S and Q - are standing between R and L.
74. (2) L is standing to the immediate left of S.
75. (3) Except M, all others are facing north.

(76 - 80): After careful analysis of the input and various steps of rearrangement, it is evident that in each step two elements – one number and one word - are rearranged. The word which comes first in the dictionary order is moved to the extreme left position while the lowest number is moved to the extreme right position in the Step I. In the next step, the word which comes second in the dictionary order is placed at the second position from the left while the second lowest number is placed at the second position from the right. The same procedure is continued till all the words get rearranged in dictionary order from the left and the numbers get rearranged in descending order after the words.

Input: site grid 19 53 22 call art main 35 66 fill 93
Step I: art site grid 53 22 call main 35 66 fill 93 19

Step II: art call site grid 53 main 35 66 fill 93 22 19
Step III: art call fill site grid 53 main 66 93 35 22 19
Step IV: art call fill grid site main 66 93 53 35 22 19
Step V: art call fill grid main site 93 66 53 35 22 19

76. (4) This is Step IV.
77. (5) '53' is fourth from the right or ninth from the left in Step IV.
78. (3) 'Site' is fourth from the left end in Step III.
79. (1) Five steps are needed to complete the arrangement.
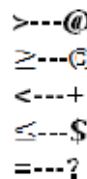80. (3) Option (3) is the final arrangement.

(81– 85):

Day	City	Time
Monday	Kanpur	3 PM
Tuesday	Surat	8 PM
Wednesday	Guwahati	6 PM
Thursday	Chennai	5 PM
Friday	Delhi	4 PM
Saturday	Mumbai	2 PM
Sunday	Patna	7 PM

81. (3) The train scheduled on Friday leaves for Delhi at 4 PM.
82. (1) The train for Surat is scheduled on Tuesday.
83. (4) The combination Saturday-Mumbai - 2 PM is correct.
84. (2) The train for Surat leaves on Tuesday at 8 PM.
There is a gap of four days between the trains which leave for Surat and Patna respectively. The train for Mumbai leaves on Saturday at 2 PM.
The train for Chennai leaves on the day immediately before the train for Delhi.
85. (5) The train for Kanpur is scheduled on Monday but Wednesday is given with it.
The train for Guwahati is scheduled on Wednesday but Friday is given with it.
The train for Delhi is scheduled on Friday but Sunday is given with it.
The train for Surat is scheduled on Tuesday but Thursday is given with it.
In all these cases there is a gap of one day between the scheduled day and the day provided with city. But in the case of Chennai there is a gap of two days.

86. (3)   87. (1)
88. (2)   89. (4)
90. (5)
91. (1) Obviously, statement (A) is the cause and statement (B) is its effect.
92. (4) Clearly, both the statements (A) and (B) are effects of independent causes.
93. (5) Clearly, both the statements (A) and (B) are effects of some common cause.
94. (3) Clearly, both the statements (A) and (B) are independent causes.
95. (2) Clearly, statement (B) is the cause and statement (A) is its effect.

(96 – 100)

96. (4)   97. (2)
98. (4)   99. (3)
100. (5)