2007, OUTRAM LINES, 1ST FLOOR, OPPOSITE MUKHERJEE NAGAR POLICE STATION, DELHI-110009

## IBPS PO PHASE - I - 103 (SOLUTION)

## REASONING

(1-5) :

| Place | Bottle | Juice | Colour |
| :---: | :---: | :---: | :---: |
| 1 | S | Apple | Blue |
| 2 | W | Mango | Pink |
| 3 | Y | Olive's | Brown |
| 4 | T | Grapes | Pink |
| 5 | Z | Orange | White |
| 6 | V | Pear | White |
| 7 | X | Kiwi | Blue |
| 8 | P | Banana | Brown |

1. (4)
2. (2)
3. (2)
4. (2)
5. (3)
(6-13) :

| Floor | Person | Dates | Place | Month |
| :---: | :---: | :---: | :---: | :---: |
| 12 | Aman | 2 | Gorakhpur | October |
| 11 | Umesh | 3 | Durgapur | March |
| 10 | Tribhuvan | 11 | Kurukshetra | December |
| 9 | Satyarth | 19 | Sasaram | November |
| 8 | William | 4 | Rampur | September |
| 7 | Ryan | 9 | Noida | April |
| 6 | Yogesh | 13 | Moradabad | February |
| 5 | Ajay | 1 | Vaishali | May |
| 4 | Vinay | 6 | Bareilly | June |
| 3 | Praveen | 5 | Lucknow | August |
| 2 | Omnath | 17 | Jaunpur | July |
| 1 | Manoj | 10 | Varanasi | January |

6. (1)
7. (5)
8. (2)
(14-17) :
9. (3)

10. (1)
11. (3)
12. (5)
13. (5)
14. (4)
15. (1)

(16-20) :
16. (1)

17. (4)

18. (4)

19. (1) Jack > Imtiaz > Lavesh > Michael > Kevin

$$
15 \mathrm{~km} / \mathrm{hr} \quad 5 \mathrm{~km} / \mathrm{hr}
$$

20. (3)

(21-22) :

21. (3)
22. (2)
(23-27) :

| Floor | Day | Person | Game |
| :---: | :---: | :---: | :---: |
| 7 | Sunday | Deepak | Cricket |
| 6 | Monday | Bipin | Football |
| 5 | Thursday | Chankya | Hockey |
| 4 | Tuesday | Edward | Volleyball |
| 3 | Friday | Amitabh | Basketball |
| 2 | Wednesday | Gopal | Tennis |
| 1 | Saturday | Fred | Kabbadi |

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23. (2) 24. (3) 25. (2)
26. (3)
27. (5)
(28-32) :

28. (5)
29. (3)
30. (4)
31. (2)
32. (4)
(33-35) :
33. (1) from I


A's position is north east only statement I sufficient to answer the question and statement II and III are not sufficient to give the answer.
34. (3) from I and II

35. (2) From I


Not sufficient to answer the question from II.


Sufficient to answer the question.

## MATHS

(36-40) :
36.
(2) $?=\frac{18 \times 609}{100}+\frac{27.5 \times 450}{100}$
$=109.62+123.75=233.37 \approx 233$
37.
(3) $?=\frac{3942}{64 \times 3}=20.53 \approx 21$
38.
(4) $?=\frac{23}{10} \times \frac{34}{7} \times \frac{15}{2}=83.785 \approx 84$
39. (4) ? $\approx 12.6 \times 22 \times 18=4989.6 \approx 4959$
40. (3) ? $\approx 17+27+37-13-9 \approx 59 \approx 60$
(41-45) :
41. (4) Total no. of girl in swimming
$=1800 \times \frac{12}{100} \times \frac{5}{8}=135$
Total no. of girls in Tennis
$=1800 \times \frac{25}{100} \times \frac{3}{5}=270$
$\therefore$ Required $\%=\left(\frac{135}{270} \times 100\right) \%=50 \%$
42. (1) Required total
$=1800 \times \frac{13}{100} \times \frac{2}{3}+1800 \times \frac{30}{100} \times \frac{7}{10}$
$=156+378=534$
43. (4) Total no. of boys in football
$=1800 \times \frac{20}{100} \times \frac{5}{9}=200$
Total no of girls in Tennis and Swimming together
$=1800 \times \frac{25}{100} \times \frac{3}{5}+1800 \times \frac{12}{100} \times \frac{5}{8}$
$=270+135=405$
$\therefore$ Required ratio $=200: 405=40: 81$
44. (3) Total no. of girls in all five games together
$=1800 \times\left[\frac{12}{100} \times \frac{5}{8}+\frac{13}{100} \times \frac{1}{3}+\frac{20}{100} \times \frac{4}{9}+\right.$
$\left.\frac{30}{100} \times \frac{3}{10}+\frac{25}{100} \times \frac{3}{5}\right]$
$=135+78+160+162+270=805$
Required ratio $=\left(\frac{805}{1800} \times 100\right) \%$
$=44.72 \% \approx 45 \%$

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45. (5) Required difference

$$
\begin{aligned}
& =1800 \times\left[\frac{20}{100} \times \frac{5}{9}-\frac{12}{100} \times \frac{3}{8}\right] \\
& =200-81=119
\end{aligned}
$$

(46-50) :
46. (5) The number series is :

$$
\begin{aligned}
& 4+6=10 \\
& 10+(6+7)=23 \\
& 23+(13+7)=43 \\
& 43+(20+7)=70 \\
& 70+(27+7)=104 \neq 108 \\
& 104+(34+7)=145
\end{aligned}
$$

47. (3) The number series is :
$8 \times 0.5+1=5$
$5 \times 1+1=6 \neq 7$
$6 \times 1.5+1=10$
$10 \times 2+1=21$
$21 \times 2.5+1=53.5$
$53.5 \times 3+1=161.50$
48. (4) The number series is :
$5 \times 1+1=6 \neq 8$
$6 \times 2+1=13$
$13 \times 3+1=40$
$40 \times 4+1=161$
$161 \times 5+1=806$
$806 \times 6+1=4837$
49. (2) The number series is:
$6+2^{3}=14$
$14+4^{3}=78$
$78+6^{3}=294$
$294+8^{3}=806 \neq 842$
$806+10^{3}=1806$
$1806+12^{3}=3534$
50. (1) The number series is:
$3 \times 1=3 \neq 4$
$3 \times 2=6$
$6 \times 4=24$
$24 \times 8=192$
$192 \times 16=3072$
51. (2) Milk $=\frac{4}{5} \times 40=32$ litres

Water $=\frac{1}{5} \times 40=8$ litres
Let $x$ litre of mixture taken our initially ATQ,

$$
\begin{aligned}
& =\frac{32-\frac{4}{5} \times x+4}{8-\frac{1}{5} \times x+4}=\frac{8}{3} \\
\Rightarrow & 540-12 x=480-8 x \\
\Rightarrow & 4 x=60 \\
\therefore & x=15 \text { litres }
\end{aligned}
$$

52. (1) Let the age of Bipin and sumit be $x$ and $2 x$ respectively.
ATQ,
$\Rightarrow($ Nitesh -18$)=\frac{1}{2}(x+6)$
$\Rightarrow$ Nitesh $=\frac{x}{2}+21$
Given, $\frac{\text { sunil }+ \text { Bipin }+ \text { Nilesh }}{3}$
$\Rightarrow 2 x+x+\frac{x}{2}+21=42 \times 3$
$\Rightarrow \frac{4 x+2 x+x}{2}=105$
$\Rightarrow x=15 \times 2=30$ years
$\therefore$ Required age $=2 x+9$
$=30 \times 2+9=69$ years
53. (2) ATQ,
$\Rightarrow \frac{21}{x+12}-\frac{21}{x+13}=\frac{6}{60}$
$\Rightarrow x^{2}+25 x-54=0$
$\Rightarrow x=-27,+2$
$\therefore$ Required speed $=2 \mathrm{~km} /$ hours
54. (4) Required probability $=\frac{7}{36} \times \frac{6}{35}$
$=\frac{1}{30}$
55. (2) Let amount be ₹ 1000
S.I $=\frac{1000 \times 20 \times 2}{100}=₹ 400$
$\therefore$ Amount after two years $=1000+400$
= ₹ 1400
Further after two years, amount
$=1400\left(1+\frac{12}{100}\right)^{2}=₹ 1756.16$
$\because 1756.16$ unit $=₹ 43904$
$\therefore 1$ unit $=\frac{43904}{1756.16}=₹ 25$
$\therefore$ Required amount $=1000 \times 25=₹ 25,000$
(56-60) :
56. (2) Let the no of laptop manufactured by company P in may $=x$
and by company $Q$ in may $=(1625-x)$
ATQ,

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$x \times \frac{38}{100}+(1625-x) \times \frac{60}{100}=766$
$\Rightarrow 38 x+97500-60 x=76600$
$\Rightarrow 22 x=20900 \Rightarrow x=950$
$\therefore(1625-x)=675$
and required difference $=950-675=275$
57. (4) No. of Laptops sold by company P in January
$=450 \times \frac{32}{100}=144$
No. of Laptop sold by company Q in July
$=792 \times \frac{25}{100}=198$
$\therefore$ Required $\%=\left(\frac{144}{198} \times 100\right) \%$
$=72.72 \% \approx 73 \%$
58. (2) No. of Laptop sold by company P in January
$=450 \times \frac{32}{100}=144$
$\therefore$ No. of Laptop sold by company Q in January $=2 \times 144-2=286$
$\therefore$ Required no $=\frac{286}{44} \times 100=650$
59. (4)
60. (4) Required total

$$
=260 \times \frac{45}{100}+250 \times \frac{24}{100}=117+60=177
$$

(61-65) :
61. (1)


Radius of cone $=\frac{105}{2} \mathrm{~m}$
Slant height of cone $=63 \mathrm{~m}$
$\therefore$ Curved surface area of cone $=(\pi r)$
$=\frac{22}{7} \times \frac{105}{2} \times 63=10395 \mathrm{~m}^{2}$

Radius of cylinder $=\frac{105}{2} \mathrm{~m}$
Height $=3 \mathrm{~m}$ (given)
$\therefore$ Curved surface area of cylinder $=2 \pi r h$
$=2 \times \frac{22}{7} \times \frac{105}{2} \times 3=990 \mathrm{~m}^{2}$
Total curved area of structure
$=$ Curved area of cone + curved area of cylinder $=10395+990=11385 \mathrm{~m}^{2}$
$\therefore$ Total area of canvas $=11,385 \mathrm{~m}^{2}$
62. (1) Let total unit $=50$ and profit $\%=x$

ATQ,
$20 \times \frac{1}{4}+30 \times \frac{x}{100}=50 \times \frac{19}{100}$
$\Rightarrow \frac{3 x}{10}=4.5$
$\therefore x=15 \%$
63. (4) Let the sum be ₹ $x$.

ATQ,
$\left[x\left(x+\frac{5}{100}\right)^{4}-x\right]-\left[\frac{x \times 10 \times 2}{100}\right]=124.05$
$\Rightarrow\left[\frac{194481 x}{160000}-x\right]-\left(\frac{x}{5}\right)^{2}=124.05$
$\Rightarrow \frac{34481 x}{160000}-\frac{x}{5}=124.05$
$\Rightarrow 2481 x=124.05 \times 160000$
$\Rightarrow x=\frac{124.05 \times 160000}{2481}=₹ 8,000$
64. (4) By Alligation method,


Required ratio $=1: 4$
65. (5) Let orignal fraction be $=\frac{x}{y}$

ATQ,
$\frac{120 x}{125 y}=\frac{3}{5} \Rightarrow \frac{40 x}{25 y}=1$
$\therefore \frac{x}{y}=\frac{5}{8}$

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(66-70) :
66. (5) I. $3 x^{2}+29 x+36=0$
$\Rightarrow 3 x^{2}+21 x+8 x+56=0$
$\Rightarrow 3 x(x+7)+8(x+7)=0$
$\Rightarrow(3 x+8)(x+7)=0$
$\Rightarrow x=-\frac{8}{3},-7$
II. $2 y^{2}+15 y+25=0$
$\Rightarrow 2 y^{2}+10 y+5 y+25=0$
$\Rightarrow 2 y+(y+5)+5(y+5)=0$
$\Rightarrow(2 y+5)(y+5)=0$
$\Rightarrow y=-\frac{5}{2},-5$
67. (1) I. $4 x^{2}-29 x+45=0$
$\Rightarrow 4 x^{2}-20 x-9 x+45=0$
$\Rightarrow 4 x(x-5)-9(x-5)=0$
$\Rightarrow(4 x-9)(\mathrm{x}-5)=0$
$\Rightarrow x=\frac{9}{4}, 5$
II. $3 y^{2}+19 y+28=0$
$\Rightarrow 3 y^{2}+12 y+7 y+28=0$
$\Rightarrow 3 y(y+4)+7(y+4)=0$
$\Rightarrow(3 y+7)(y+4)=0$
$\Rightarrow y=-\frac{7}{4},-4$
Clearly, $x>y$
68. (5) I. $3 x^{2}-13 x+12=0$
$\Rightarrow 3 x-9 x-4 x+12=0$
$\Rightarrow 3 x(x-3)-4(x-3)=0$
$\Rightarrow(3 x-4)(x-3)=0$
$\Rightarrow x=\frac{4}{3}, 3$
II. $3 y^{2}-7 y+2=0$
$\Rightarrow 3 y-6 y-y+2=0$
$\Rightarrow 3 y(y-2)-1(y-2)=0$
$\Rightarrow(3 y-1)(y-2)=0$
$\Rightarrow y=\frac{1}{3}, 2$
69. (4) I. $20 x^{2}-9 x+1=0$
$\Rightarrow 20 x^{2}-5 x-4 x+1=0$
$\Rightarrow 5 x(4 x-1)-1(4 x-1)=0$
$\Rightarrow(5 x-1)(4 x-1)=0$
$\Rightarrow x=\frac{1}{5}, \frac{1}{4}$
II. $12 y^{2}-7 y+1=0$
$\Rightarrow 12 y^{2}-4 y-3 y+1=0$
$\Rightarrow 4 y(3 y-1)-1(3 y-1)=0$
$\Rightarrow(4 y-1)(3 y-1)=0$
$\Rightarrow y=\frac{1}{4}, \frac{1}{3}$
Clearly, $x \leq y$
70. (4) I. $x^{2}=16$
$x=+4,-4$
II. $2 y^{2}-17 y+36=0$
$\Rightarrow 2 y^{2}-8 y-9 y+36=0$
$\Rightarrow 2 y(y-4)-9(y-4)=0$
$\Rightarrow(2 y-9)(y-4)=0$
$\Rightarrow(2 y-9)(y-4)=0$
$\Rightarrow y=\frac{9}{2}, 4$
Clearly, $x \leq y$

## ENGLISH LANGUAGE

## (81-90) :

81. (2) 'not only' will just come before 'come'.
82. (2) 'were' replace with 'was' because the subject (the officer) is singular in sentence.
83. (1) 'of' Remove from sentence because consists of means comprise
84. (2) 'up' replace with 'out'.

Bring up means alimentation Bring out means - publish
85. (4) 'have you not' relace with 'didn't you'.
86. (3) Remove the 'been' and make the sentence in active voice.
87. (3) 'By' relace with 'for'.
88. (5) No error.
89. (4) 'for' replace with 'with'.
90. (2) 'no' relating to me' replace with 'not related to me'.


## IBPS PO PHASE - I - 103 (ANSWER KEY)

1. (4)
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97. (1)
98. (2)
99. (5)
100. (3)

Note:- If you face any problem regarding result or marks scored, please contact 9313111777

Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003

