## IBPS PO SPECIAL PHASE -I MOCK TEST - 234 (SOLUTION)

## REASONING

(1-5):


1. (3)
2. (5)
3. (3)
4. (4)
5. (1)
6. (3)

7. (2)

(Opposite letters)
Similarly,

(Opposite letters)
(8-9):

## Given statements:

$\mathrm{K} \geq \mathrm{J}>\mathrm{C}$
$\mathrm{A}<\mathrm{B} \leq \mathrm{E}$
$\mathrm{C}=\mathrm{D}>\mathrm{A}$
8.(5) From (i) and (iii), we get
$\mathrm{K} \geq \mathrm{J}>\mathrm{C}=\mathrm{D}>\mathrm{A}$
Thus, $\mathrm{K}>\mathrm{D}$ is true. Hence I is true
Again, $J>D$ is also true
So, both conclusion I and II are true
9.(4) From (i), (ii) and (in), we get
$\mathrm{K} \geq \mathrm{J}>\mathrm{C}=\mathrm{D}>\mathrm{A}<\mathrm{B} \leq \mathrm{E}$
Thus, we can't compare C and E or B and $J$. Hence conclusion I $(\mathrm{C} \leq \mathrm{E})$ and II $(\mathrm{B} \geq \mathrm{J})$ are not true.
(10-11): Given statements:

| $\mathrm{A} \geq \mathrm{N}<\mathrm{K}$ | $\ldots \ldots$. (i) |
| :--- | :--- |
| $\mathrm{B} \geq \mathrm{L}>\mathrm{D}$ | $\ldots \ldots$. (ii) |
| $\mathrm{H}=\mathrm{K} \geq \mathrm{C}$ | $\ldots \ldots$. (iii) |
| $\mathrm{C}=\mathrm{D}$ | $\ldots \ldots$. (iv) |

10.(1) From (i) and (iii), we get
$\mathrm{A} \geq \mathrm{N}<\mathrm{K}=\mathrm{H} \geq \mathrm{C}$
Thus, $\mathrm{N}<\mathrm{H}$ or $\mathrm{H}>\mathrm{N}$ is true Hence conclusion $I(H>N)$ is true.
But, we can't compare A and C. Hence II $(\mathrm{A} \leq \mathrm{C})$ is not true.
11.(4) From (i), (ii), (iii) and (iv), we get
$\mathrm{A} \geq \mathrm{N}<\mathrm{K}=\mathrm{H} \geq \mathrm{C}=\mathrm{D}<\mathrm{L} \leq \mathrm{B}$
Thus, we can't compare $L$ and $K$. Hence I ( $\mathrm{L}<\mathrm{K}$ ) is not true.
Again, $\mathrm{C}<\mathrm{B}$ or $\mathrm{B}>\mathrm{C}$ is true. But conclusion II $(B \geq C)$ is not true.
12.(1) Given statement:
$\mathrm{H} \geq \mathrm{M}>\mathrm{Z} \geq \mathrm{P}<\mathrm{D}$
Thus, $\mathrm{H}>\mathrm{P}$ is true. Hence conclusion I is true. But, we can't compare D and M. Hence conclusion II $(\mathrm{D}>\mathrm{M})$ is not true.
(13-14):
Family tree

13. (2)
(15-19):

20. (1)

I. True
III. True
II. Can't say
IV. Can't say

Hence, only I and III follow.
21. (5)

I. Can't say
II. Can't say
III. Can't say
IV. Can't say

But after comparing, we find that either I or III is true.
22. (2)

I. Can't say
II. True
III. True
IV. True

Hence, only II, III and IV follow.
23. (4)
24. (5)

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25.(3) After changing the letters, we get RNM PTT AHR TPP MAA
26.(3) After adding F in word, we get FROM FPUT FAIR FTQP FMBA Thus, there are two meaningful words.
27.(5) After arranging the words, we get AIR MBA PUT ROM TQP Thus, third from the right end is PUT.
28.(2) After changing the letters, we get MOR TUP RIA PQT ABM Thus there is only one word beginning with a vowel.
(29-30):

29.(2) $\mathrm{ID}=7+5=12 \mathrm{~m}$ north.
30.(3)
(31-35):

| Floor | Person |
| :---: | :---: |
| 8 | C |
| 7 | D |
| 6 | A |
| 5 | G |
| 4 | E |
| 3 | H |
| 2 | F |
| 1 | B |

31. (3) 32. (4) 33. (4) 34. (2) 35. (3)

MATHS
36. (2) Solving by breaking method
$=18 \times 172+\frac{1}{4} \times 172+33 \times 18.90+\frac{2}{3} \times$
$37 \times 196.80+37 \times 196.80+\frac{2}{3} \times 196.80$
$=3096+43+623.7+12.6+7281.6+131.2$
$=3139+636.3+7412.8=11188.1$
37.(3) ? $=(\sqrt[3]{512})^{2}+(\sqrt[4]{6561})^{3}+(\sqrt[3]{216})^{2}=64+$
$729+36=829$
38. (1) $?=25 \%(7560-7830+6240)+3 \%$ of 7560 $-2 \%$ of $7830+1 \%$ of 6240
$=\frac{1}{4}(5970)+3 \times 75.6-2 \times 78.3+1 \times 62.4$
$=1492.5+226.8-156.6+62.4=1625.10$
39.(4) $?=\frac{677 \times 677 \times 677+223 \times 223 \times 223}{677 \times 677-677 \times 223+223 \times 223}$

We know that,

$$
\frac{a^{3}+b^{3}}{a^{2}-a b+b^{2}}=a+b=(677+233)=900
$$

40.(5) $\sqrt{?}=\sqrt{29241}-\sqrt{6724}+\sqrt{3969}-\sqrt{4356}$

$$
=171-82+63-66=86
$$

$$
\text { ? = } 86 \times 86=7396
$$

41.(1) The series is $14+1.6 \times-1=12.4,12.4+$ $1.6+2=15.6,15.6+1.6 \times-3=10.8,10.8+$ $1.6 \times 4=17.2,17.2+1.6 \times-5=9.2$,
42.(4) The series is $28 \times 2=56,56 \times 3=168$, $168 \times 4=672,672 \times 5=3360$, $3360 \times 6=20160$.
43.(3) The series is $(17)^{3},(16)^{2},(15)^{3},(14)^{2},(13)^{3}$, $(12)^{2} \ldots$ ie $4913,256,3375,196,2197,144$
44.(4) The series is

45.(2) The series is

46.(2) Reqd average number

$\frac{2926000}{4}=731500$
47.(1) Reqd difference $=1531000-(444000+$ $596000)=1531000-1040000=491000$
48.(3) Reqd $\%=\frac{87}{77} \times 100=112.98 \approx 113 \%$
49.(4) Reqd difference
$\frac{1}{5}(1722850-410250)=\frac{1}{5} \times 1312600$
$=262520$
50.(1) Reqd $\%=\frac{(509-444)}{444} \times 100$
$\frac{65}{444} \times 100=\frac{1625}{111} \%=14.64 \%$

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51.(3) Ratio of efficiency of a man to that of a woman $=\frac{3}{5}: \frac{1}{3}=9: 5$
$\therefore 36 \times \mathrm{x} \times 9=48(\mathrm{x}+7) \times 5$
or, $324 \mathrm{x}-240 \mathrm{x}=48 \times 5$
or, $84 \mathrm{x}=48 \times 5 \times 7$
$\therefore \mathrm{x}=20$ days
52.(2) The total work is $36 \times 20=720$ man-days or $48 \times 27=1296$ women-days.
Remaining work after 6 days
$=1-6 \times\left(\frac{10}{720}+\frac{16}{1296}\right)$
$=1-6 \times\left(\frac{1}{72}+\frac{1}{72}\right)=1-\frac{6 \times 2}{72}=\frac{5}{6} \times 30$
using $M_{1} D_{1} W_{2}=M_{2} D_{2} W_{1}$
$20 \times 20 \times 1=12 \times \mathrm{D}_{2} \times \frac{5}{6}$
$\therefore \mathrm{D}_{2}=40$ days
53.(2) Let the distance of one side be xkm .
$\therefore \frac{x}{55}-\frac{x}{66}=\frac{1}{2}$ or, $\frac{6 x-5 x}{330}=\frac{1}{2}$
or, $\frac{x}{330}=\frac{1}{2} \quad \therefore \mathrm{x}=165 \mathrm{~km}$
Quicker Approach:
Let the distance he LCM of 55 and $66=$ 330 km
Time taken at $55 \mathrm{kmph}=6$ hour
Time taken at $66 \mathrm{kmph}=5$ hours
$6-5=1$ hour $\equiv 330 \mathrm{~km}$
$\therefore \frac{1}{2} \equiv 165 \mathrm{~km}$
54.(3) Total number of question $=250$

Total number of question to be answered correctly for her grade in exam to be $70 \%$
$=250 \times \frac{70}{100}=175$
Reqd number of question $=175-75$
$\times \frac{40}{100}=17-75 \times \frac{2}{5}=175-30=145$
55.(5) Let the workers work for x hours.

$$
\begin{aligned}
& \therefore \frac{600}{35} \times\left(42+(x-42) \times \frac{3}{2}\right)=1800 \\
& \text { or, } \frac{600}{35}\left(42+\frac{3}{6}-63\right)=1800 \\
& \frac{3 x}{2}-21=\frac{1800 \times 35}{600}=105 \\
& \frac{3 x}{2}=105+21 \therefore x=\frac{126 \times 2}{3}=84 \text { hours }
\end{aligned}
$$

Quicker Approach:
In normal case, to get ₹ 1800 , which is 3 times of ₹ 600 ,he should have to week for $3 \times 35=105$ days
Now. suppose he works over-time for ' x ' days. And each day of over-time a equivalent to $\frac{3}{2}$ of normal day as he is paid $\frac{3}{2}$ times of normal payment.

So, $42+\frac{3}{2} x=105 \quad$ or, $\frac{3}{2} x=63$
$\mathrm{x}=42$ days
Therefore total no. of days he worked $=42+42=84$ days
56.(1) Given time $=8$ years 4 months
$=8 \frac{1}{3}=\frac{25}{3}$ years
Let the sum be ₹x.
SI = ₹x
$\therefore$ Rate $=\frac{x \times 100 \times 3}{x \times 25}=12 \%$
57.(2) Liquid A in the mixture of 27 litres
$27 \times \frac{5}{9}=15$ litres
Liquid $B$ in the mixture $=27-15=12$ litres Now, according to the question,

$$
\frac{5 x-15}{4 x+27-12}=\frac{7}{11}
$$

or, $55 \mathrm{x}-165=28 \mathrm{x}+105$
or, $27 \mathrm{x}=270$
$\therefore \mathrm{x}=10$
Hence liquid A in the mixture $=5 \times 10$ = 50 litres

## Quicker Approach:

Considering fractional part of A and B m mixture
A: B $=\frac{5}{9}: \frac{4}{9}$
After replacement
$\mathrm{A}: \mathrm{B}=\frac{7}{18}: \frac{11}{18}$
Now, change the denominator of (i) from 9 to 18 . ie multiply (i) by $\frac{1}{2}$ to compare the decrease A.
Now. the ratios become:
Initially A : B $=\frac{10}{18}: \frac{8}{18}$
After replacement A : B $=\frac{7}{18}: \frac{11}{18}$

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From the above two ratios it is clear that liquid A reduces from $\frac{10}{18}$ to $\frac{7}{18}$
Also, the reduction in quantity of A is
$27\left(\frac{5}{5+4}\right)$ litres
$\Rightarrow\left(\frac{10}{18}-\frac{7}{18}\right)$ of the liquid $=27\left(\frac{5}{9}\right)$ litres
$\therefore$ or $\frac{1}{6}$ of total liquid $=15$ litres
Total liquid $=90$ litres
Therefore, quantity of $A=90\left(\frac{5}{5+4}\right)=50$ litres
58.(1) Reqd ratio $=\frac{40500 \times \frac{(3+25}{100}}{33600 \times \frac{(11+22)}{100}}$
$=\frac{405 \times 28}{336 \times 33}=\frac{135}{12 \times 11}=\frac{45}{44}=45: 44$
59.(3) Reqd difference $=\left(40500 \times \frac{12+25+3}{3 \times 100}\right)-$
$\left(33600 \times \frac{25+11+6}{100 \times 3}\right)$
$=(135 \times 40)-(112 \times 42)=5400-4704$
$=696$
60.(5) Number of laptops sold by HPE in Q4 2015 = 18900
Number of laptops sold by HPE in Q3 2016
$=40500 \times \frac{2}{5} \times \frac{11}{10}=17820$
$\therefore$ reqd $\%=\frac{(18900-17820)}{18900} \times 100$
$=\frac{1080}{18900} \times 100=5.72 \%$ less
61.(4) Total number of laptops sold by company Dell, Lenovo and Others together
$=33600\left(\frac{25}{100} \times \frac{110}{100}+\frac{11}{100} \times \frac{125}{100}+\frac{22}{100} \times \frac{150}{100}\right)$
$=33600\left(\frac{110}{400} \times \frac{55}{400}+\frac{66}{200}\right)$
$=33600\left(\frac{110+55+132}{400}\right)$
$=33600 \times \frac{297}{400}=24948$
62.(2) Reqd ratio $=\frac{40500 \times \frac{(25+4+3)}{100}}{33600 \times \frac{25+6+2}{100}}$
$=\frac{405 \times 32}{336 \times 33}=\frac{135 \times 2}{21 \times 11}=\frac{90}{77}=90: 77$
63. (5) I: $\sqrt{x}-\frac{\sqrt{6}}{\sqrt{x}}=0$,
$\sqrt{x} \cdot \sqrt{x}-\sqrt{6} \Rightarrow x=\sqrt{6}$
II. $y^{3}=6^{3 / 2} \Rightarrow y=\left(6^{3 / 2}\right)^{1 / 3}=6^{1 / 2}=\sqrt{6}$

Hence, $x=y$
64. (1) $3 x-2 y=10$
$5 x-6 y=6$
$9 x-6 y=30$
$-5 x-{ }_{+} 6 y=-6$
$4 x=24$
$\therefore x=6$
Now,
$5 \times 6-6 y=6$
$\therefore y=\frac{24}{6}=4$
65. (5) I. $x^{2}+x-12=0$
$x^{2}+4 x-3 x-12=0$
$x(x+4)-3(x+4)=0$
$(x+4)(x-3)=x=-4,3$
II. $y^{2}-5 y+6=0$
$y^{2}-3 y-2 y+6=0$
$y(y-3)-2(y-3)=0$
$(y-3)(y-2)=0$
$y=3,2$
Hence, the relationship between $x$ and $y$
can't be established
66. (3) I. $x^{2}+6 x+3 x+18=0$
$x(x+6)+3(x+6)=0$
$(x+6)(x+3)=0$
$x=-6,-3$
II. $y^{2}-8 y-5 y+40=0$
$y(y-8)-5(y-8)=0$
$(y-8)(y-5)=0$
$y=8,5$
Hence, $x<y$
67. (2) I. $\sqrt{x+6}=11-6$
$=\sqrt{x+6}=5 ; \quad x+6=25 ; \quad x=19$
II. $y^{2}+112=473$
$y^{2}=473-112=361 ; \quad y= \pm 19$
Hence, $x \geq y$
68. (2) Let one man takes $x$ days to complete the work and one woman takes $y$ days to complete the work independently.


Then, $\frac{4 \times 4}{x}+\frac{10 \times 4}{y}=\frac{1}{3}$
and $\frac{6 \times 2}{x}+\frac{12 \times 2}{y}=\frac{2}{9}$
Solving above equations, we get
$x=108, y=216$
Let $z$ women be added to complete the work in 3 days.
Then, $\frac{6 \times 3}{108}+\frac{3(12+z)}{216}$
$=1-\left(\frac{1}{3}+\frac{2}{9}\right)=\frac{4}{9}$
$\Rightarrow 36+36+3 z=\frac{216+4}{9}=96$
69. (4) Total balls initially in the bag $=4+5+6$ $=15$
There are 4 red balls
If on first draw, red balls comes out then 6 more red balls are added
$\therefore$ The probability of red balls on first draw
$=\frac{4}{15}$
Due to withdraw of one red balls now there are only 3 red balls is left.
Also, there is no replacement done so, total number of balls becomes 14 .
After adding 6 new red balls total number of balls becomes $=14+6=20$
And total number of red balls $=3+6=9$
Now, if on the 2 nd draw, red balls is drawn, then,
$\therefore$ The probability of red balls on 2 nd draw
$=\frac{9}{20}$

As there is no replacement done so, total number of balls becomes 19
And total number of red balls $=9-1=8$
Now, if on the 3rd draw, red balls is drawn then
$\therefore$ The probability of red balls on 3rd draw $=$

$$
\frac{8}{19}
$$

$\therefore$ Final probability if on both the draws red
balls is drawn $=\frac{4}{15} \times \frac{9}{20} \times \frac{8}{19}=\frac{24}{475}$
Hence, $\frac{24}{475}$ is the probability of all the 3 balls drawn are of red ball.
70. (3) Let the side of the square be $x$.

Then, $(\sqrt{2} x)^{2}=(12 \sqrt{2})^{2}$
$\Rightarrow x=12$
Now, perimeter of equilateral triangle

$$
=12 \times 4=48 \mathrm{~cm}
$$

Side of equilateral triangle $=\frac{48}{3}=16$
cm
Area of equilateral triangle $=\frac{\sqrt{3}}{4} \times(16)^{2}$

$$
=64 \sqrt{3} \mathrm{~cm}^{2}
$$

## ENGLISH LANGUAGE

71.(3) Replace 'to' with 'for'
72.(4) Replace "tap' with 'tapping'
74.(4) Replace 'hardened' with 'hardening'
75.(3) Replace 'have' with 'had'
(91-95): DCAGFEB

## IBPS PO SPECIAL PHASE -I MOCK TEST - 234 (ANSWER KEY)

$\begin{array}{lllllll}\text { 1. } & \text { (3) } & \text { 26. } & \text { (3) } & \text { 51. } & \text { (3) } & \text { 76. }\end{array}$ (2) $)$

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

Note:- Whatapp with Mock Test No. and Question No. at 7053606571 for any of te doubts. Join the group and you may also share your suggestions and experience of sunday Mock Test.

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

