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## IBPS PO SPECIAL PHASE - I-319 (SOLUTION)

## REASONING

(1-5) :


1. (5)
2. (2)

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4. (4)
5. (3)
(6-10) :

6. (2)
7. (5)
8. (4)
9. (5)
10. (3)
11. (5) Given statement :
$\mathrm{S} \geq \mathrm{T}=\mathrm{U} \leq \mathrm{W}<\mathrm{Z}$
$\mathrm{K}>\mathrm{L}>\mathrm{M}=\mathrm{Z}$
Combining all statements
$\mathrm{S} \geq \mathrm{T}=\mathrm{U} \leq \mathrm{W}<\mathrm{Z}=\mathrm{M}<\mathrm{L}<\mathrm{K}$
I. $\mathrm{K}>\mathrm{T} \rightarrow$ True
II. $\mathrm{U}<\mathrm{M} \rightarrow$ True

Hence, both conclusion I and II are true.
12. (5) Given statement :
$C \geq P=Q \geq T$
$\mathrm{R}>\mathrm{C}$
S = T
Combining all statements
$\mathrm{R}>\mathrm{C} \geq \mathrm{P}=\mathrm{Q} \geq \mathrm{T}=\mathrm{S}$
I. $\mathrm{R}>\mathrm{Q} \rightarrow$ True
II. $\mathrm{P} \geq \mathrm{S} \rightarrow$ True

Hence, both conclusion I and II are true.
13. (2) Given statements:
$\mathrm{B} \leq \mathrm{N}<\mathrm{K}=\mathrm{L}$
$\mathrm{M}=\mathrm{T} \geq \mathrm{N}$
Combining all statements
$\mathrm{M}=\mathrm{T} \geq \mathrm{N}<\mathrm{K}=\mathrm{L}$
I. $\mathrm{L} \leq \mathrm{M} \rightarrow$ False
$\mathrm{B} \leq \mathrm{N} \leq \mathrm{T}=\mathrm{M}$
II. $\mathrm{T} \geq \mathrm{B} \rightarrow$ True

Hence, Only conclusion II is true.
14. (4) Given statements :
$\mathrm{W}>\mathrm{D}=\mathrm{E} \geq \mathrm{J}=\mathrm{A}$
$\mathrm{U}=\mathrm{D}$
$\mathrm{J} \leq \mathrm{R}$
Combining all statements
$\mathrm{W}>\mathrm{U}=\mathrm{D}=\mathrm{E} \geq \mathrm{J}=\mathrm{A} \leq \mathrm{R}$
I. $\mathrm{R} \geq \mathrm{E} \rightarrow$ False
II. $\mathrm{U}>\mathrm{A} \rightarrow$ False

Hence, neither conclusion I nor II is true.
15. (1) Given statements :

V $>\mathrm{X} \leq \mathrm{H}<\mathrm{R}=\mathrm{L} \geq \mathrm{I} \ldots \ldots$. (i)
$\mathrm{P} \geq \mathrm{Q}=\mathrm{V}$
Combining all statements
$\mathrm{P} \geq \mathrm{Q}=\mathrm{V}>\mathrm{X} \leq \mathrm{H}<\mathrm{R}=\mathrm{L} \geq \mathrm{I}$
I. $\mathrm{P}>\mathrm{X} \rightarrow$ True
II. I $\leq \mathrm{Q} \rightarrow$ False

Hence, Only conclusion I is true.
16. (5)

I. False II. False
III. True
IV. False
Hence, Only II follows.
17. (1)

I. True
II. False
III. True
IV. False

Hence, I and III follows.
18. (5)


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I. False
II. False
III. False
IV. True

Hence, Only IV follows.
19.(5)12345678910

D I S C L AIMER
First, second, sixth and tenth letters are D, I, A R
Meaningful world RAID, RIAD
20.

$\mathrm{AE}=\mathrm{AB}+\mathrm{BE}=\mathrm{AB}+\mathrm{CD}=20+5=25 \mathrm{~m}$ (21-23) :

21. (4)
22. (3)
23. (5)
24. (3)
25. (3)


There are two case - TU \& VA
(26-30) :

| Floor | Person | Fruits |
| :---: | :---: | :--- |
| 7 | P | Banana |
| 6 | Y | Mango |
| 5 | X | Apple |
| 4 | N | Grapes |
| 3 | M | Guava |
| 2 | O | Orange |
| 1 | Z | Papaya |

26. (3)
27. (1)
28. (3)
29. (5)
30. (2)

## (31-35) :

31.(1) Let all the numbers are arranged in descending order from left to right, we get: 924816725563485
725 is in the middle position after rearrangement.
Product of first and second digit of $725=$ $7 \times 2=14$
32.(3) Let all the digits in each of the numbers are arranged in ascending order, we get: 257249458168356 ; clearly 458 is the highest number which was originally: 485
33.(4) Let the positions of the first and the third digits of each or the numbers are interchanged, we get:
527429584618 365;
Clearly 527, 429 and 365 (three numbers) are odd numbers.
34.(3) Let we add one to the middle digit of each of the numbers, we get:
735934495826 573, in these numbers let we divide them with 3
$735 / 3=245 ; 934 / 3=311.33$;
$495 / 3=165 ; 826 / 3=275.33 ;$
$573 / 3=191$; therefore four numbers (735, 495 and 573 are divisible by 3 ) and remaining two numbers are not divisible by three.
35.(2) From the given numbers (725 924485 $816563) 924$ is highest and 485 is lowest number. Let we multiply first digit of highest number with third digit of lowest number, we get $9 \times 5=45$

## Maths

36.(3) $98=97+1^{3}$
$90=98-2^{3}$
$117=90+3^{3}$
? $=117-4^{3}$, i.e. $=53$
$178=53+53$
37.(1) $11=8+3^{1}$
$20=11+3^{2}$
$47=20+3^{3}$
? $=47+3^{4}$, i.e. $?=128$
$371=128+3^{5}$
38.(2)

39.(3) $14=5 \times 3-1$
$41=14 \times 3-1$

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$122=41 \times 3-1$
? $=122 \times 3-1$, i.e. ? $=365$
$1094=365 \times 3-1$
40.(4) $18 \times 0.5=9$
$9 \times 1=9$
$9 \times 1.5=13.5$
$13.5 \times 2=$ ?, i.e. ? $=27$
$27 \times 2.5=67.5$
41.(4) Suppose the number is $x$.
$\because \mathrm{x} \times \frac{3}{5} \times \frac{60}{100} \times \frac{40}{100}=504$
$\therefore \frac{504 \times 5 \times 100 \times 100}{3 \times 60 \times 40}=3500$
$\therefore \mathrm{x} \times \frac{2}{5} \times \frac{25}{100}=3500 \times \frac{2}{5} \times \frac{25}{100}$
$[\because \mathrm{x}=3500]$
$=350$
42.(4) Let Tanvi's age be x years.
$\therefore$ Tarun's age $=\frac{\mathrm{x}}{2}$
$\therefore$ Vishal's age is $\frac{\mathrm{x}}{4}$ years
After four years,
$(x+4)=\left(\frac{x}{4}+4\right) 2.5$
or, $x+4=\frac{2.5 x}{4}+10$
or, $4 \mathrm{x}+16=2.5 \mathrm{x}+40$
or, $1.5 \mathrm{x}=24$
or, $x=\frac{24}{1.5}=16$
43.(3) Suppose waste pipe can drain the cistern in $x$ min.
Then,
$\frac{1}{24}+\frac{1}{40}-\frac{1}{x}=\frac{1}{60}$
$\frac{1}{x}=\frac{1}{24}+\frac{1}{40}-\frac{1}{60}$
$\frac{1}{x}=\frac{5+3-2}{120}$
$\frac{1}{x}=\frac{6}{120}=\frac{1}{20}$
$\mathrm{x}=20 \mathrm{~min}$
$\because$ Waste pipe can drain of $30 \mathrm{~L} / \mathrm{min}$.

Hence, capacity of the cistern $=30 \times 20=$ 600 L
44.(1) $\mathrm{L}=50 \mathrm{~km}$
$\mathrm{T}_{1}=2 \mathrm{hr}$
$\mathrm{T}_{2}=5 \mathrm{hr}$
Speed of boat $=(1 / 2) \times\left\{\left(1 / T_{1}\right)+\left(1 / T_{2}\right)\right.$
$=(50 / 2) \times\{(1 / 2)+(1 / 5)=17.5 \mathrm{~km} / \mathrm{hr}$
Distance covered $=3 \times 17.5 \mathrm{~km}$
$=52.5 \mathrm{~km}$
45.(4) According to the question,
$A_{1}-A_{2}=5000-200$
$\left(\mathrm{P}+\frac{\mathrm{P} \times 12 \times \mathrm{T}}{100}\right)-\left(\mathrm{P}+\frac{\mathrm{P} \times 4 \times \mathrm{T}}{100}\right)$
$=5000-2000$
$\Rightarrow \frac{8 \mathrm{PT}}{100}=300$
$\Rightarrow \mathrm{PT}=\frac{3000 \times 100}{8}=37500$
$\Rightarrow$ Again, for $12 \%$ rate,
$\mathrm{SI}=\frac{\mathrm{P} \times \mathrm{T} \times \mathrm{R}}{100}=\frac{37500 \times 12}{100}$
$\Rightarrow \mathrm{SI}=$ Rs. 4500
Sum (P) = 5000-4500 = Rs. 500
We have, PT = 37500
$\mathrm{T}=\frac{37500}{\mathrm{P}}=\frac{37500}{500}=75$ years
46.(5) Average $=$ Sum of observations/Number of observations
Given, average wage of a worker during a fortnight comprising 15 consecutive working days was Rs. 95 per day.
Total wage he received in the fortnight
$=15 \times 95=$ Rs. 1425
Also, during the first 7 days, his average was Rs. 92 per day and the average wage during the last 7 days was Rs. 97 per day. Total wage received in the fortnight excluding the $8^{\text {th }}$ day $=92 \times 7+97 \times 7$
$\Rightarrow$ Total wage received in the fortnight excluding the $8^{\text {th }}$ day $=1323$
Wage on the 8th day = Rs. $1425-1323$
= Rs. 102
47.(4) Given, ratio of efficiency of $P$ and $Q$ i.e. 3 : 1 so, total efficiency of $(P+Q)=4$
Then, Ratio of time taken by P and Q is 1 : 3
Let time taken by P is X days
So time taken by Q is 3 X days

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Time taken by $\mathrm{P}=$ time taken by $\mathrm{Q}-60$ days
$\mathrm{X}=3 \mathrm{X}-60$
$2 \mathrm{X}=60$
$\mathrm{X}=30$ days
Eff. $_{P+Q} \times T_{P+Q}=$ Eff. $_{P \times T P}$
$4 \times \mathrm{T}_{\mathrm{P}+\mathrm{Q}}=3 \times 30$
$\mathrm{T}_{\mathrm{P}+\mathrm{Q}}=90$ days
$T_{P+Q}=\frac{90}{4}$ days
$\mathrm{T}_{\mathrm{P}+\mathrm{Q}}=22 \frac{1}{2}$ days
48.(3) Let $l$ be the numerator and $m$ be the denominator of a fraction F
$\mathrm{F}=\frac{l}{m}$
Let $l$ is increased by $150 \%$ so it would become $250 \times \frac{l}{100}=\frac{5 l}{2}$
Let m is increased by $350 \%$ so it would
become $450 \times \frac{m}{100}=\frac{9 m}{2}$
Hence new fraction $=\frac{51}{9 m}=\frac{25}{51}$
$\frac{1}{m}=\frac{15}{17}$
49.(1) Suppose, the monthly salary of Ms. Deepti is x rupees.
$\Rightarrow \mathrm{x} \times \frac{11}{100}=5236$
$\Rightarrow \mathrm{x}=\frac{5236 \times 100}{11}$
$\Rightarrow \mathrm{x}=₹ 47600$
$\therefore$ Total annual amount invested by Ms.
Deepti $=47600\left(\frac{11}{100}+\frac{19}{100}+\frac{7}{100}\right) \times 12$
$=47600 \times \frac{37}{100} \times 12=₹ 211344$
50.(4) Let the cost price of 1 kg item be x .

So cost price of 600 g item $=0.6 \mathrm{x}$.
According to the question the Selling Price of 600 g of item $=$ Cost price of 1 kg item $=\mathrm{x}$.

So, Profit $\%=\frac{x-0.6 x}{0.6 x} \times 100=66.7 \%$.
51.(2) No. of employees working in legal deptt. = $48+54+36+30+53=221$
and no. of employees working in H.R. $=$ $1050+1015+976+888+1004=4933$

Required \% $=\frac{221 \times 100}{4933}=4(\mathrm{App})$
52.(2) Average number of people working in marketing deptt. $=1326.2$
Average number of people working in production deptt. $=1557.4$
Required Difference $=1557.4-1326.2$ = 231 (app.)
53.(5) No. of employees working in organisation $\mathrm{A}=1050+1017+1382+1542+786+48$ $=5825$
No. of employees working in organization $\mathrm{E}=1004+963+1290+1580+735+53$ = 5625
Required ratio $=5825: 5625=233: 225$
54.(3) Total no. of employees from all the departments $=5825+5703+5424+5613$ + $5625=28190$
55.(4) Required $\%=\frac{960 \times 100}{5703}=17$ (app.)
56.(1) $73.96-18.19+17.47=?+10.91$
? $=73.96-18.19+17.47-10.91$
? $=55.77+6.56$
$?=62.33$
57.(1) ? $=345+20-11$
? $=354$
58.(4) $26 \%$ of $450=\frac{26 \times 450}{100}=26 \times 4.5=117.0$
$12 \%$ of $150=12 \times \frac{150}{100}=12 \times 1.5=18.0$
Hence, $26 \%$ of $450-?=12 \%$ of $150 \rightarrow 117$

- ? $=18 \rightarrow$ ?
$=117-18=99$
59.(4) $\frac{36 \times 650}{100}-\frac{14 \times 560}{100}$
$=234-78.40=155.6$
60.(3) $135+167-32=$ ? -113
$=>$ ? $=270+113=383$
61.(4) $7878-4545+5454=?+4444$
$=>8787=?+4444$
$=>$ ? $=8787-4444=4343$
62.(3) $264 \div \sqrt{576}+(11) 2+12=(x)^{2}$
$(x)^{2}=\frac{264}{24}+121+12=144$
$\mathrm{x}=\sqrt{144}=12$



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## IBPS PO SPECIAL PHASE - I - 319 (ANSWER KEY)

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