## IBPS RRB Office Assistant (Pre) 2020 Exam Question Paper

## Answers with Explanation

(1-5)


1. (c)
2. (a)
3. (c)
4. (b)
5. (a)
6. (d) There are four such pairs: M-S, A-C, A-E and C-E
7. (b) Original Word: $\mathbf{3 4 8 2 7 9 5 6}$

After Applying given condition: 15935737
(8-12)

|  | 7 th | 12th |
| :---: | :---: | :---: |
| January | C | A |
| February | D | E |
| March | F | B |

8. (c)

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9. (d)
10. (b)
11. (b)
12. (c)
13. (b)

14. (c)

(15-16)

15. (a)

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17. (e)

18. (a) Word: MIXTURE

After applying condition: EIMRTUX
Hence, only I remains at the same position.
19. (d) 8 A 9 C F 432 M 8 P Q 72 R 1 S 9

5 N 4 H 9 B 496 P A 5
Hence, option d is the correct answer.
20. (b) 8 A 9 CF 432 M 8 PQ 72 R 1 S 9 5 N 4 H 9 B 496 PA 5
21. (d) 8 A CF 42 M 8 PQ 2 R S N 4 HB 4 6 PA
(22-26) :

22. (b)
23. (c)

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24. (a)
25. (d)
26. (b)
27. (a) $\mathrm{E}>\mathrm{B}>\mathrm{C}>\mathrm{A}>\mathrm{D}$ 65
28. (a) $\mathrm{E}>\mathrm{B}>\mathrm{C}>\mathrm{A}>\mathrm{D}$ 65
(29-31) :


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29. (b)
30. (c)
31. (a)
(32-36)

32. (c)
33. (c)
34. (d)
35. (b)
36. (a)
37. (a)

(38-40) :

38. (c)
39. (b)
40. (d)
41. (b) $\frac{\mathrm{M}_{1} \times \mathrm{D}_{1}}{\mathrm{~W}_{1}}=\frac{\mathrm{M}_{2} \times \mathrm{D}_{2}}{\mathrm{~W}_{2}}$

$$
\Rightarrow \frac{12 \times 64}{1}=\frac{16 \times \mathrm{D}_{2}}{\frac{2}{3}}
$$

$$
\Rightarrow \mathrm{D}_{2}=32
$$

42. (b) Let ages of $P$ and $Q$ after 2 years will be $5 x$ years and $4 x$ years respectively According to question $5 x-4 x=4$
$\Rightarrow \mathrm{x}=4$
Hence, the age of $Q$ after 2 years $=4 x=4 \times$

$$
4=16 \text { years. }
$$

43. (a) Let the income of $B=$ Rs. $100 x$, then the income of $A=100 x+20 \%$ of $100 x=$ Rs. 120x

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Total expenditure of $A$ and $B=30 \%$ of (100x $+120 x)=66 x$
According to question $66 x=26400$

$\Rightarrow \mathrm{x}=\frac{26400}{66}=400$
Hence, the income of $B=100 x=100 \times 400$ $=$ Rs. 40000.
44. (d) Let each of A and B invested Rs. 100 and the rate of interest $=1 \%$, then Simple interest of A
$=\frac{100 \times 1 \times \mathrm{t}}{100}=\mathrm{t}\left(\mathrm{SI}=\frac{\mathrm{PRT}}{100}\right)$
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$=\frac{100 \times 1 \times(\mathrm{t}+4)}{100}=(\mathrm{t}+4)\left(\mathrm{SI}=\frac{\mathrm{PRT}}{100}\right)$
According to question
$\frac{\mathrm{t}}{1}=\frac{\mathrm{t}+4}{2}$
$\Rightarrow \mathrm{t}=4$
45. (b) Let the required time $=\mathrm{t}$ seconds, then
$72 \times 30=54 \times \mathrm{t}($ Distance $=$ Speed $\times$ Time $)$
$\Rightarrow \mathrm{t}=40$
46. (d) $50 \%$ of $24 \%$ of ? $=6$
$\Rightarrow 0.5 \times 0.24 \times ?=6$
? $=50$
Hence the answer is d.
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47. (e) $?=\sqrt{400}+(5+2)^{2}=20+49=69$

Hence the answer is e.
48. (c) $\sqrt{? \times 8}=\frac{1}{2}$ of $16^{2}$

$$
\Rightarrow \sqrt{? \times 8}=128
$$

Squaring on both sides, we get
$? \times 8=128^{2}$
$\Rightarrow$ ? $=2048$
Hence, the answer is c.
49. (a) $192 \times 4=?^{2}-\sqrt{256}$
$\Rightarrow 768=?^{2}-16$
$\Rightarrow ?^{2}=768+16=784=28^{2}$
$\Rightarrow$ ? $=28$
Hence, the answer is a.
50. (d) $?=18 \frac{1}{2}-2 \frac{1}{4}+3^{3}=\frac{37}{2}-\frac{9}{4}+27$
$=\frac{74-9+108}{4}=\frac{173}{4}=43.25$
Hence, the answer is d.
51. (c)

| Family | TV shows |
| :---: | :---: |
| A | 28 |
| B | 24 |
| C | 20 |
| D | 25 |
| E | 35 |
| Total | 132 |

Total number of TV shows watched in the month $=28+24+20+25+35=132$
Hence, the answer is option c.
52. (e)

| Family | TV shows |
| :---: | :---: |
| A | 28 |
| B | 24 |
| C | 20 |
| D | 25 |
| E | 35 |
| Total | 132 |

Difference of the number of TV shows watched by families A and C
= $28-20=8$
Difference of the number of TV shows watched by families B and D
$=25-24=1$
Required sum $=8+1=9$
Hence, the answer is option e.
53. (c)

| Family | TV shows |
| :---: | :---: |
| A | 28 |
| B | 24 |
| C | 20 |
| D | 25 |
| E | 35 |
| Total | 132 |

Average of the number of TV shows watched by families $\mathrm{C}, \mathrm{A}$ and B
$=\frac{20+24+28}{3}=24$
Average of the number of TV shows watched
by families D and E
$=\frac{25+35}{2}=30$
Required Ratio $=24: 30=4: 5$
Hence, the answer is option c.
54. (b)

| Family | TV shows |
| :---: | :---: |
| A | 28 |
| B | 24 |
| C | 20 |
| D | 25 |
| E | 35 |
| Total | 132 |

Difference between the number of TV shows watched by families A and $\mathrm{C}=28-20=8$ Sum of the number of TV shows watched by families D and E together $=25+35=60$
Required percentage
$=\frac{8}{60} \times 100=13 \frac{1}{3} \%$
Hence, the answer is option b.
55. (a)

| Family | TV shows |
| :---: | :---: |
| A | 28 |
| B | 24 |
| C | 20 |
| D | 25 |
| E | 35 |
| Total | 132 |

Difference of the average of the number of TV shows watched by families D and C and half of the number of TV shows watched by family E
$=\frac{20+25-35}{2}=5$
Required percentage
$=\frac{24-5}{5} \times 100=380 \%$
Hence, the answer is option a.
56. (b) $24+22 \div 0.25=? \times 28$
$\Rightarrow 24+88=? \times 28$
$\Rightarrow 112=$ ? $\times 28$
$\Rightarrow$ ? = 4
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Hence, the answer is b .
57. (e) ? $=31.5 \div 3.5 \times 12-8=9 \times 12-8=100$ Hence, the answer is e.
58. (a) $2^{4} \times 3^{3} \div(96 \div$ ?) $=\sqrt{324}$
$\Rightarrow 432 \div(96 \div ?)=18$
$\Rightarrow 24=96 \div$ ?
$\Rightarrow$ ? = 4
Hence, the answer is a.
59. (d) $\left(4 \frac{1}{8}+6\right) \times 16=? \times 9$
$\Rightarrow\left(\frac{33}{8}+6\right) \times 16=? \times 9$
$\Rightarrow \frac{81}{8} \times 16=? \times 9$
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$\Rightarrow 162=? \times 9$
$\Rightarrow$ ? $=18$
Hence, the answer is d .
60. (c) $\sqrt{484}+\sqrt{?}=\sqrt{2304}$
$\Rightarrow 22+\sqrt{?}=48$
$\Rightarrow 22+\sqrt{?}=48-22$
$\Rightarrow \sqrt{?}=26$
$\Rightarrow ?=26^{2}=676$
61. (a) Sum of the number of clothes dry cleaned by

M on Tuesday and Wednesday $=75+95=$ 170
Sum of the number of clothes dry cleaned by
L on Wednesday and Thursday $=85+25$
= 110
Required Ratio = $17: 11$
Hence, the answer is option a.
62. (d) Sum of the number of clothes dry cleaned by O on Monday and
Thursday $=40+115=155$
Difference of the number of clothes cleaned by N on Monday and Wednesday $=100-35$ $=65$
Required difference $=155-65=90$
Hence, the answer is option d.
63. (b) Sum of the number of clothes dry cleaned by N on Tuesday, Wednesday and Thursday
$=55+35+60=150$
Clothes dry cleaned by O on all the days
$=40+90+60+115+70=375$
Required percentage $=\frac{150}{375} \times 100=40 \%$
Hence, the answer is option b.
64. (e) Total number of clothes dry cleaned by all the
shops together on Monday
shops together on Monday
$=50+80+100+40=270$
Similarly, for all the days total number of clothes dry cleaned by all the shops is calculated and it is shown in the table below:

| Shop/Days | Monday | Tuesday | Wednesday | Thursday | Friday |
| :--- | :--- | :--- | :--- | :--- | :--- |
| L | 50 | 60 | 85 | 25 | 110 |
| M | 80 | 75 | 95 | 120 | 105 |
| N | 100 | 55 | 35 | 60 | 45 |
| O | 40 | 90 | 60 | 115 | 70 |
| Total | 270 | 280 | 275 | 320 | 330 |

The most number of clothes were dry cleaned on Friday.
Hence, the answer is option e.
65. (b) Number of clothes dry cleaned by L on days put together $=50+60+85+25+110$ $=330$

Similarly, for all the shops total number of clothes dry cleaned on all the days is calculated and it is shown in the table below:

| Shop/Days | Monday | Tuesday | Wednesday | Thursday | Friday | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| L | 50 | 60 | 85 | 25 | 110 | 330 |
| M | 80 | 75 | 95 | 120 | 105 | 475 |
| N | 100 | 55 | 35 | 60 | 45 | 295 |
| O | 40 | 90 | 60 | 115 | 70 | 375 |

66. (c) $4 \frac{2}{3} \times \frac{2}{7}+?=9$
$\Rightarrow \frac{14}{3} \times \frac{2}{7}+?=9$
$\Rightarrow ?=9-\frac{4}{3}$
$\Rightarrow ?=7 \frac{2}{3}$
67. (a) $\Rightarrow 299 \div 13 \times ?=127-35$
$\Rightarrow 23 \times ?=127-35$
$\Rightarrow 23 \times$ ? $=92$
$\Rightarrow ?=92 \div 23$
$\Rightarrow$ ? $=4$

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68. (b) $38^{2}+5^{2}-173=6^{?}$
$\Rightarrow 1444+25-173=6^{?}$
$\Rightarrow 1296=6^{\text {? }}$
$\Rightarrow$ ? = 4
69. (b) $4225 \div(?+17)=13^{2}$
$\Rightarrow 4225 \div 13^{2}=(?+17)$
$\Rightarrow 25=(?+17)$
$\Rightarrow$ ? $=8$
70. (c) ? $\%$ of $450+1740=2100$
$\Rightarrow$ ? \% of $450=2100-1740$
$\Rightarrow$ ? \% of $450=360$
$\Rightarrow ?=\frac{360}{450} \times 100$
$\Rightarrow$ ? = 80
71. (c) Let the cost price of the article $=$ Rs. 100 x , then Marked price of the article $=100 x+50 \%$ of $100 \mathrm{x}=$ Rs. 150 x
Selling price of the article $=$ Rs. $(150 x-50)$
According to question Profit $=\mathrm{SP}-\mathrm{CP}$
$50=(150 \mathrm{x}-50)-100 \mathrm{x}$
$\Rightarrow 50=50 \mathrm{x}-50$
$\Rightarrow 50 \mathrm{x}=100$
$\Rightarrow \mathrm{x}=2$
Hence, the marked price of the article $=$ Rs. $150 \mathrm{x}=150 \times 2=$ Rs. 300.
72. (d) Distance $=$ Speed $\times$ Time फ्याগ্িिর্স The distance travelled in downstream direction $=14 \times 6=84 \mathrm{~km}$

The distance travelled in upstream direction $=$
$10 \times \mathrm{t}=10 \mathrm{tkm}$
According to question $84-10 \mathrm{t}=44$
$\Rightarrow 10 \mathrm{t}=84-44=40$
$\Rightarrow \mathrm{t}=\frac{40}{10}=4$
73. (c) As both A and B invested for the same time period, then Ratio of their profit $=$ Ratio of their investment
$\frac{X}{3200}=\frac{(X+800)}{(6800-3200)}$
$\Rightarrow \frac{\mathrm{X}}{3200}=\frac{(\mathrm{X}+800)}{3600}$
$\Rightarrow 9 \mathrm{X}=8(\mathrm{X}+800)$
$\Rightarrow X=8 \times 800=6400$
74. (a) Let the radius of the circle $=r \mathrm{~cm}$, then Length of the rectangle $=$ Diameter of circle $=2 \mathrm{rcm}$ Breadth of the rectangle $=$ Half of the diameter of circle $=\mathrm{rcm}$ According to question Circumference of a circle - Perimeter of rectangle $=2 \mathrm{~cm}$
$2 \pi r-2(2 r+r)=2$
$\Rightarrow \pi \mathrm{r}-3 \mathrm{r}=1$
$\Rightarrow \mathrm{r}\left(\frac{22}{7}-3\right)=1$
$\Rightarrow r=7$
75. (c) Let the present age of $\mathrm{A}=\mathrm{A}$ years and present age of $B=B$ years, then
$(\mathrm{A}+10)+(\mathrm{B}+10)=106$
$\Rightarrow B=106-10-10-A=86-A$
According to question
$\mathrm{A}-6=\mathrm{B}+16$
$\Rightarrow \mathrm{B}=\mathrm{A}-6-16=\mathrm{A}-22$

From equations (i) and (ii), we get
$86-\mathrm{A}=\mathrm{A}-22$
$\Rightarrow 2 \mathrm{~A}=86+22$
$\Rightarrow \mathrm{A}=\frac{108}{2}=54$
76. (d) The pattern of the series is:
$3+3^{2}=12$
$12+5^{2}=37$
$37+7^{2}=86$
$86+9^{2}=167$
$167+11^{2}=288$
77. (a) The pattern of the series is:
$1920 \div 10=192$
$192 \div 8=24$
$24 \div 6=4$
$4 \div 4=1$
$1 \div 2=0.5$
78. (e) The pattern of the series is:
$100+19 \times 1=119$
$119-19 \times 2=81$
$81+19 \times 3=138$
$138-19 \times 4=62$
79. (c) The pattern of the series is:
$1.1+1.3=2.4$
$2.4+1.5=3.9$
$3.9+1.7=5.6$
$5.6+1.9=7.5$
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80. (b) The pattern of the series is:
$7 \times 2+1=15$
$15 \times 2+1=31$
$31 \times 2+1=63$
$63 \times 2+1=127$
$127 \times 2+1=255$

