

**Course: IBPS RRB Prelims**

**Subject: Approximation**

**Time:10 Minutes**

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Directions (1-15): निम्नलिखित प्रश्नों में प्रश्नवाचक चिह्न (?) के स्थान पर क्या अनुमानित मान आना चाहिए, (सटीक मान की गणना करना अपेक्षित नहीं है।)

Q1.  $\sqrt{?} = (1346.92 + 53.11) \div 99.9 - 6.98$

- (a) 121
- (b) 441
- (c) 1024
- (d) 49
- (e) 196

L1Difficulty 2

QTagsApproximation

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Q2.  $32.01^2 \times 512^{\frac{1}{3}} \times 33.99^2 \div (2^9 \times 16.97^2) = 2^?$

- (a) 3
- (b) 4
- (c) 9
- (d) 10
- (e) 6

L1Difficulty 2

QTagsApproximation

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Q3.  $(14.99\% \text{ of } 4799.995) \div ? = (60.11\% \text{ of } 4.111)^2$

- (a) 150
- (b) 25
- (c) 100
- (d) 50
- (e) 125

L1Difficulty 2

QTagsApproximation

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Q4.  $\frac{3}{20} \text{ of } 239.98 = ? \div (1.99 \times 0.99)$

- (a) 72

(b) 33

(c) 45

(d) 37

(e) 80

L1Difficulty 2

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$$Q5. \sqrt{1296.002} \div 8.996 \times 9.98 + 39.99 = ?$$

(a) 80

(b) 8

(c) 4

(d) 120

(e) 40

L1Difficulty 2

QTagsApproximation

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$$Q6. (13.89)^2 + \sqrt{3598.97} - ? + 10.89 \% \text{ of } 1999.9 = (17.9)^2$$

(a) 140

(b) 152

(c) 166

(d) 178

(e) 180

L1Difficulty 2

QTagsApproximation

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$$Q7. (7.97)^2 - 9.87 \% \text{ of } 239.97 + (17.87)^2 + 419.97 = (?)^2$$

(a) 18

(b) 22

(c) 36

(d) 40

(e) 28

L1Difficulty 2

QTagsApproximation

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$$Q8. \frac{?+134.5}{12.9} + (19.87)^2 - 24.89 \% \text{ of } 563.8 = (16.98)^2 - 8.79$$

(a) 138

(b) 158

(c) 124

(d) 110

(e) 150

L1Difficulty 2

QTagsApproximation

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$$Q9. ? \times 22.97 + (24.97)^2 - (19.99)^2 + 188.9 = (22.93)^2$$

(a) 16

(b) 10

(c) 5

(d) 1

(e) 17

L1Difficulty 2

QTagsApproximation

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$$Q10. \frac{593.89}{?} + 14.97 \times 35.98 + \frac{1259.81}{17.93} = (25.99)^2$$

(a) 2

(b) 9

(c) 15

(d) 20

(e) 17

L1Difficulty 2

QTagsApproximation

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$$Q11. 2775 \times \frac{160}{\sqrt{(?)}} = 5550$$

(a) 6400

(b) 5625

(c) 900

(d) 1600

(e) 2025

L1Difficulty 2

QTagsApproximation

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$$Q12. 24.98^2 \times \frac{16.02^2}{(7.98 \times 15.04)} \times 38.93 = 130 \times ?^2$$

(a) 25

(b) 45

(c) 40

(d) 30

(e) 20

L1Difficulty 2

QTagsApproximation  
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Q13.  $71.98\% \text{ of } 1200 + 35.06\% \text{ of } 270 = ?\% \text{ of } 600$

- (a) 140
- (b) 125
- (c) 120
- (d) 135
- (e) 160

L1Difficulty 2

QTagsApproximation  
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Q14.  $88.05\% \text{ of } 450 = ?\% \text{ of } 530$

- (a) 70
- (b) 68
- (c) 75
- (d) 80
- (e) 65

L1Difficulty 2

QTagsApproximation  
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Q15.  $\sqrt{899} \times (12.005)^2 + ? = 5000$

- (a) 680
- (b) 720
- (c) 750
- (d) 620
- (e) 630

L1Difficulty 2

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## Solutions

S1. Ans.(d)

Sol.

$$\sqrt{?} \simeq (1347 + 53) \div 100 - 7$$

$$\Rightarrow \sqrt{?} \simeq 14 - 7$$

$$\Rightarrow \sqrt{?} \simeq 7$$

$$\Rightarrow ? \simeq 49$$

S2. Ans.(e)

Sol.

$$\begin{aligned}
 2^7 &\simeq 32^2 \times 8 \times 34^2 \div (2^9 \times 17^2) \\
 &\simeq \frac{2^{15} \times 17^2}{2^9 \times 17^2} \\
 2^7 &\simeq 2^6 \\
 \Rightarrow ? &\simeq 6
 \end{aligned}$$

S3. Ans.(e)

Sol.

$$\begin{aligned}
 \left( \frac{15}{100} \times 4800 \right) \div ? &\simeq \left( \frac{60}{100} \times 4 \right)^2 \\
 \Rightarrow ? &\simeq \frac{72,000}{24 \times 24} \\
 \Rightarrow ? &\simeq 125
 \end{aligned}$$

S4. Ans.(a)

Sol.

$$\begin{aligned}
 \frac{3}{20} \times 240 &\simeq ? \div (2 \times 1) \\
 \Rightarrow ? &\simeq 72
 \end{aligned}$$

S5. Ans.(a)

Sol.

$$\begin{aligned}
 ? &\simeq \frac{36}{9} \times 10 + 40 \\
 &\simeq 40 + 40 \\
 ? &\simeq 80
 \end{aligned}$$

S6. Ans.(b)

Sol.

$$\begin{aligned}
 (14)^2 + \sqrt{3600} - ? + \frac{11}{100} \times 2000 &= (18)^2 \\
 196 + 60 - ? + 220 &= 324 \\
 ? &= 476 - 324 \\
 ? &= 152
 \end{aligned}$$

S7. Ans.(e)

Sol.

$$\begin{aligned}
 (8)^2 - \frac{10 \times 240}{100} + (18)^2 + 420 &= (?)^2 \\
 64 - 24 + 324 + 420 &= (?)^2 \\
 (?)^2 &= 784 \\
 ? &= 28
 \end{aligned}$$

S8. Ans.(a)

Sol.

$$\begin{aligned}\frac{?+135}{13} + (20)^2 - \frac{25}{100} \times 564 &= (17)^2 - 9 \\ \frac{?+135}{13} + 400 - 141 &= 289 - 9 \\ \frac{?+135}{13} &= 280 - 259 \\ ? &= 273 - 135 \\ ? &= 138\end{aligned}$$

S9. Ans.(c)

Sol.

$$\begin{aligned}? \times 23 + (25)^2 - (20)^2 + 189 &= (23)^2 \\ 23 \times ? + 225 + 189 &= 529 \\ 23 \times ? &= 115 \\ ? &= 5\end{aligned}$$

S10. Ans.(b)

Sol.

$$\begin{aligned}\frac{594}{?} + 15 \times 36 + \frac{1260}{18} &= (26)^2 \\ \frac{594}{?} + 540 + 70 &= 676 \\ ? &= \frac{594}{66} \\ ? &= 9\end{aligned}$$

S11. Ans.(a)

Sol.

$$\begin{aligned}2775 \times \frac{160}{\sqrt{?}} &= 5550 \\ \sqrt{?} &= 80 \\ \Rightarrow ? &= 6400\end{aligned}$$

S12. Ans.(e)

Sol.

$$\begin{aligned}
 25^2 \times \frac{16^2}{8 \times 15} \times 39 &= 130 \times ?^2 \\
 \Rightarrow ?^2 &= \frac{25^2 \times 16^2 \times 39}{8 \times 15 \times 130} \\
 \Rightarrow ?^2 &= \frac{125 \times 16}{5} \\
 \Rightarrow ?^2 &= (5 \times 4)^2 \\
 \Rightarrow ?^2 &= 20^2 \\
 \Rightarrow ? &= 20
 \end{aligned}$$

S13. Ans.(e)

Sol.

$$\begin{aligned}
 \frac{72}{100} \times 1200 + \frac{35}{100} \times 270 &= \frac{?}{100} \times 600 \\
 \Rightarrow ? &= 159.75 \\
 \Rightarrow ? &\approx 160
 \end{aligned}$$

S14. Ans.(c)

Sol.

$$\begin{aligned}
 \frac{88}{100} \times 450 &\approx \frac{?}{100} \times 530 \\
 \Rightarrow ? &\approx 74.716 \\
 \Rightarrow ? &\approx 75
 \end{aligned}$$

S15. Ans.(a)

Sol.

$$\begin{aligned}
 \sqrt{899} \times (12.005)^2 + ? &= 5000 \\
 \Rightarrow 30 \times 12^2 + ? &= 5000 \\
 \Rightarrow ? &= 680
 \end{aligned}$$