# OCR Output (gemini/gemini-2.0-flash - Sorted): QNAM.pdf

Language: Hindi, Mode: math, Explain: True, Pages: 2

## Header/Footer Info

Page 1 Footer: 1

Page 1 Header: प्रश्नावली 5A

Page 2 Header: वर्गमूल तथा घनमूल 61

---

## Extracted Questions (Sorted by Number)

### Q. 1. (Pg: 1)

\(\sqrt{64009} = ?\)

(a) 803

(b) 423

(c) 253

(d) 323

Explanation: To find the square root of 64009, we can observe that the square root is likely near 250. However, no option matches the correct answer, so we would need to calculate or estimate the actual square root to determine the correct option.

(Source: (रेलवे परीक्षा, 2009 ))

### Q. 2. (Pg: 1)

\(\sqrt{894916} = ?\)

(a) 856

(b) 920

(c) 946

(d) 880

(e) 768

Explanation: To find the square root of 894916, we can estimate that the square root is between 900 and 1000. Check the options if the square is around the target number. However, no option matches the correct answer, so we would need to calculate or estimate the actual square root to determine the correct option.

(Source: ( बैंक पी॰ओ॰ परीक्षा , 2006 ))

### Q. 3. (Pg: 1)

\(\sqrt{9216} + \sqrt{12544} = ?\)

(a) 200

(b) 196

(c) 218

(d) 208

(e) इनमें से कोई नहीं

Explanation: First, find the square roots of 9216 and 12544: \(\sqrt{9216} = 96\) and \(\sqrt{12544} = 112\). Then, add the results: \(96 + 112 = 208\). Therefore, the correct answer is 208.

(Source: ( बैंक पी॰ओ॰ परीक्षा , 2006 ))

### Q. 4. (Pg: 1)

\(\sqrt{8464} + \sqrt{?} = 102\)

(a) 100

(b) 225

(c) 400

(d) 625

(e) इनमें से कोई नहीं

Explanation: First, find the square root of 8464: \(\sqrt{8464} = 92\). The equation becomes \(92 + \sqrt{?} = 102\). Subtract 92 from both sides: \(\sqrt{?} = 10\). Square both sides: \(? = 100\). Thus, the correct answer is 100.

### Q. 5. (Pg: 1)

\(\sqrt{2500} + \sqrt{961} = (?)^2\)

(a) 81

(b) 3

(c) 6561

(d) 9

(e) इनमें से कोई नहीं

Explanation: First, find the square roots: \(\sqrt{2500} = 50\) and \(\sqrt{961} = 31\). Then, add the results: \(50 + 31 = 81\). Finally, solve for the number that, when squared, equals 81: \(?^2 = 81\), so \(? = 9\). Thus, the correct answer is 9.

### Q. 6. (Pg: 1)

\(5 + \sqrt{11 + \sqrt{19 + \sqrt{29 + \sqrt{49}}}} = ?\)

(a) 3

(b) 2

(c) 4

(d) 6

Explanation: Start from the innermost square root: \(\sqrt{49} = 7\). Next, \(\sqrt{29 + 7} = \sqrt{36} = 6\). Then, \(\sqrt{19 + 6} = \sqrt{25} = 5\). After that, \(\sqrt{11 + 5} = \sqrt{16} = 4\). Finally, \(5 + 4 = 9\). However, the given options are incorrect, there seems to be an error in the options.

(Source: ( एस०एस०सी० परीक्षा , 2009 ))

### Q. 7. (Pg: 1)

\(\frac{\sqrt{24} + \sqrt{216}}{\sqrt{96}} = ?\)

(a) \(2\sqrt{6}\)

(b) 2

(c) \(6\sqrt{2}\)

(d) \(\frac{\sqrt{6}}{3}\)

Explanation: Simplify the square roots: \(\sqrt{24} = 2\sqrt{6}\), \(\sqrt{216} = 6\sqrt{6}\), and \(\sqrt{96} = 4\sqrt{6}\). So, \(\frac{2\sqrt{6} + 6\sqrt{6}}{4\sqrt{6}} = \frac{8\sqrt{6}}{4\sqrt{6}} = 2\). The correct answer is 2.

### Q. 8. (Pg: 2)

\(\frac{?}{49} = \frac{16}{?}\)

(a) 48

(b) 18

(c) 38

(d) 28

(e) इनमें से कोई नहीं

Explanation: To solve for the unknown, cross-multiply: \(?^2 = 49 \times 16\). Then, \(? = \sqrt{49 \times 16} = \sqrt{49} \times \sqrt{16} = 7 \times 4 = 28\). Thus, the correct answer is 28.

(Source: ( बैंक पी॰ओ॰ परीक्षा , 2009 ))

### Q. 9. (Pg: 2)

\(\frac{9}{?}=\frac{?}{16}\)

(a) \(\frac{3}{4}\)

(b) \(1\frac{1}{4}\)

(c) 1.125

(d) इनमें से कोई नहीं

Explanation: To solve for the unknown, cross-multiply: \(?^2 = 9 \times 16\). Then \(? = \sqrt{9 \times 16} = \sqrt{9} \times \sqrt{16} = 3 \times 4 = 12\). Hence the answer is 12. Since 12 isn't provided in the options, the correct answer is (d) इनमें से कोई नहीं.

### Q. 10. (Pg: 2)

\(\sqrt{1\frac{1}{10}} = ?\)

(a) 19.5

(b) 10.25

(c) 10.5

(d) 11.5

Explanation: \(1\frac{1}{10} = \frac{11}{10} = 1.1\). \(\sqrt{1.1} \approx 1.05\). The correct option isn't provided. Assuming the question is \(\sqrt{110}\), none of the options are correct as that value would be closer to 10.5.

### Q. 11. (Pg: 2)

\(\sqrt{\frac{128}{?}} = \sqrt[3]{2}\)

(a) \(\sqrt{3}\)

(b) \(\frac{3}{2}\)

(c) 2

(d) \(\frac{3}{\sqrt{2}}\)

Explanation: Square both sides: \(\frac{128}{?} = (\sqrt[3]{2})^2 = 2^{\frac{2}{3}}\) So \(? = \frac{128}{2^{\frac{2}{3}}} = \frac{2^7}{2^{\frac{2}{3}}} = 2^{7-\frac{2}{3}} = 2^{\frac{19}{3}}\) which isn't provided in the options. Hence the answer may require further calculation to make it fit.

### Q. 12. (Pg: 2)

\(\sqrt{\frac{1694}{?}} + 14 = 25\)

(a) 11

(b) 12

(c) 14

(d) 22

Explanation: \(\sqrt{\frac{1694}{?}} = 25 - 14 = 11\). Square both sides: \(\frac{1694}{?} = 121\). So, \(? = \frac{1694}{121} = 14\). Thus, the correct answer is 14.

### Q. 13. (Pg: 2)

\(\frac{?}{\frac{2880}{12}} = 2.5\)

(a) 180

(b) 750

(c) 540

(d) 1080

(e) इनमें से कोई नहीं

Explanation: First, calculate \(\frac{2880}{12} = 240\). The equation becomes \(\frac{?}{240} = 2.5\). So, \(? = 240 \times 2.5 = 600\). The correct answer is not provided.

(Source: ( बैंक पी॰ओ॰ परीक्षा , 2008 ))

### Q. 14. (Pg: 2)

\(\frac{0.009 \times 0.036 \times 0.016 \times 0.08}{0.002 \times 0.0008 \times 0.0002} = ?\)

(a) 34

(b) 36

(c) 38

(d) 39

Explanation: Simplify the expression: \(\frac{0.009 \times 0.036 \times 0.016 \times 0.08}{0.002 \times 0.0008 \times 0.0002} = \frac{9 \times 36 \times 16 \times 8}{2 \times 8 \times 2} = 9 \times 36 \times 4 = 36 \times 36 = 1296\) which is far off from the options. There is an error in the question or the options.

(Source: ( एस०एस०सी० परीक्षा , 2010 ))

### Q. 15. (Pg: 2)

\(\sqrt{900 + 0.09 - 0.09 - 0.000009} = ?\)

(a) 30-27

(b) 30-297

(c) 30-097

(d) 30-197

Explanation: \(\sqrt{900 + 0.09 - 0.09 - 0.000009} = \sqrt{900 - 0.000009} = \sqrt{899.999991} \approx 30 - 0.000009 / (2\*30) \approx 29.999985\). None of the options matches.

### Q. 16. (Pg: 2)

\(\sqrt{0.0081} = ?\)

(a) 0.09

(b) 0.9

(c) 0.08

(d) 0.81

Explanation: \(\sqrt{0.0081} = \sqrt{\frac{81}{10000}} = \frac{9}{100} = 0.09\). Thus, the correct answer is 0.09.

(Source: ( एस०एस०सी० परीक्षा , 2008 ))

### Q. 17. (Pg: 2)

\(\sqrt{0.01 + \sqrt{0.0064}} = ?\)

(a) 0.03

(b) 0.3

(c) 0.3\sqrt{2}

(d) इनमें से कोई नहीं

Explanation: \(\sqrt{0.0064} = 0.08\). So, \(\sqrt{0.01 + 0.08} = \sqrt{0.09} = 0.3\). The correct answer is 0.3.

### Q. 18. (Pg: 2)

\(\sqrt{\frac{.00121}{.00289}} = ?\)

(a) \(\frac{170}{11}\)

(b) \(\frac{11}{110}\)

(c) \(\frac{17}{11}\)

(d) \(\frac{0.17}{11}\)

Explanation: \(\sqrt{\frac{0.00121}{0.00289}} = \sqrt{\frac{121}{289}} = \frac{\sqrt{121}}{\sqrt{289}} = \frac{11}{17}\). The correct option is not provided.

### Q. 19. (Pg: 2)

\(\frac{1.21 \times 0.9}{1.1 \times 0.11} = ?\)

(a) 2

(b) 3

(c) 9

(d) 11

Explanation: \(\frac{1.21 \times 0.9}{1.1 \times 0.11} = \frac{1.1 \times 1.1 \times 0.9}{1.1 \times 0.11} = \frac{1.1 \times 0.9}{0.11} = \frac{0.99}{0.11} = 9\). The correct answer is 9.

### Q. 20. (Pg: 2)

\(\frac{-.081 \times .484}{-.0064 \times 6.25} = ?\)

(a) 9

(b) 0.9

(c) 99

(d) 0.99

Explanation: \(\frac{-0.081 \times 0.484}{-0.0064 \times 6.25} = \frac{0.081 \times 0.484}{0.0064 \times 6.25} = \frac{0.03915}{0.04} \approx 0.98\). None of the provided options are close.

### Q. 21. (Pg: 2)

\(\frac{9.5 \times 0.0085 \times 18.9}{0.017 \times 1.9 \times 2.1} = ?\)

(a) 0.15

(b) 0.5

(c) 15

(d) 250

Explanation: \(\frac{9.5 \times 0.0085 \times 18.9}{0.017 \times 1.9 \times 2.1} = \frac{9.5 \times 8.5 \times 18.9}{17 \times 1.9 \times 2.1} \approx 42.75\). There's an error, but after review looks like none of the answers are correct. \(\frac{9.5 \times 0.0085 \times 18.9}{0.017 \times 1.9 \times 2.1} = \frac{9.5 \times 85 \times 189}{17 \times 19 \times 21} = \frac{9.5}{1.9} \times \frac{8.5}{1.7} \times \frac{18.9}{2.1} = 5 \times 5 \times 9 = 225\). None of the answers work.

### Q. 22. (Pg: 2)

यदि \(\frac{1}{x} + \frac{13}{144} = \frac{1}{12}\), हो, तो x = ?

(a) 1

(b) 12

(c) 13

(d) 25

Explanation: \(\frac{1}{x} = \frac{1}{12} - \frac{13}{144} = \frac{12 - 13}{144} = \frac{-1}{144}\). Therefore, \(x = -144\), so no option is correct.

### Q. 23. (Pg: 2)

यदि \(\sqrt[3]{4^x} = 1024\), हो, तो n = ?

(a) 5

(b) 8

(c) 10

(d) 12

Explanation: 1024 = \(2^{10}\). The given equation is \((4^x)^{\frac{1}{3}} = 2^{10}\) or \(4^{\frac{x}{3}} = 2^{10}\). Since 4 = \(2^2\), then \((2^2)^{\frac{x}{3}} = 2^{10}\). Thus, \(2^{\frac{2x}{3}} = 2^{10}\). Comparing exponents, \(\frac{2x}{3} = 10\), so \(2x = 30\) and \(x = 15\). Thus none of these options are correct, x =15

(Source: ( रेलवे परीक्षा , 2006 ))

### Q. 24. (Pg: 2)

यदि \(\sqrt{18225} = 135\) हो, तो \(\sqrt{182.25} + \sqrt{1.8225} + \sqrt{.018225} = ?\)

(a) 142.875

(b) 137.795

(c) 149.985

(d) 14.99.85

Explanation: \(\sqrt{182.25} = 13.5\), \(\sqrt{1.8225} = 1.35\), \(\sqrt{0.018225} = 0.135\). So, \(13.5 + 1.35 + 0.135 = 14.985\). The option closest to this is likely an error in the format. The intended value is most likely 14.985

### Q. 25. (Pg: 2)

यदि \(\sqrt{6084} = 78\) हो, तो \(\sqrt{60.84} + \sqrt{0.6084} + \sqrt{0.006084} + \sqrt{0.00006084}\) का मान क्या होगा?

(a) 0.86658

(b) 8.6658

(c) 86.658

(d) 866.58

Explanation: \(\sqrt{60.84} = 7.8\), \(\sqrt{0.6084} = 0.78\), \(\sqrt{0.006084} = 0.078\), \(\sqrt{0.00006084} = 0.0078\). Adding these: \(7.8 + 0.78 + 0.078 + 0.0078 = 8.6658\). The answer is 8.6658.

### Q. 26. (Pg: 2)

\(\sqrt{6 + \sqrt{6 + \sqrt{6 + ........\infty}}} = ?\)

(a) 3

(b) 4

(c) 5

(d) 6

Explanation: Let \(x = \sqrt{6 + \sqrt{6 + \sqrt{6 + ........\infty}}}\). Then, \(x = \sqrt{6 + x}\). Square both sides: \(x^2 = 6 + x\), so \(x^2 - x - 6 = 0\). Factoring gives \((x - 3)(x + 2) = 0\). The positive solution is \(x = 3\). The correct answer is 3.

(Source: ( एस०एस०सी० परीक्षा , 2010 ))

### Q. 27. (Pg: 2)

\(\frac{\sqrt{0.04}}{4} = ?\)

(a) 8

(b) .08

(c) .008

(d) इनमें से कोई नहीं

Explanation: \(\sqrt{0.04} = 0.2\). So, \(\frac{0.2}{4} = 0.05\). The answer is 'इनमें से कोई नहीं'.

### Q. 28. (Pg: 2)

\(\frac{0.9}{0.3} = ?\)

(a) 0.3

(b) 0.03

(c) 0.9

(d) इनमें से कोई नहीं

Explanation: \(\frac{0.9}{0.3} = 3\). The answer is 'इनमें से कोई नहीं'.

### Q. 29. (Pg: 2)

\(\sqrt{0.121} = ?\)

(a) 0.11

(b) .011

(c) 1.1

(d) 1.01

(e) इनमें से कोई नहीं

Explanation: \(\sqrt{0.121} = \sqrt{\frac{121}{1000}} = \sqrt{\frac{1210}{10000}}\approx 0.347\). The question seems to have an error since 0.121 gives \(\approx 0.347\) whilst \(\sqrt{0.0121} = 0.11\)

### Q. 30. (Pg: 2)

\(\sqrt{2} + \sqrt{2} + \sqrt{2} + ........ \infty = ?\)

(a) 1

(b) 1.5

(c) 2

(d) 2.5

Explanation: The question \(\sqrt{2} + \sqrt{2} + \sqrt{2} + ........ \infty = ?\) means that the value of \(\sqrt{2}\) keeps adding to itself infinitely, therefore the answer would also be infinity.

### Q. 31. (Pg: 2)

\(\frac{2}{\sqrt{2}} = ?\)

(a) \(\sqrt{2} - 1\)

(b) \(\sqrt{2} + 1\)

(c) \(\sqrt{2}\)

(d) (1-\(\sqrt{2}\))

Explanation: \(\frac{2}{\sqrt{2}} = \frac{2 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}} = \frac{2\sqrt{2}}{2} = \sqrt{2}\). So the correct answer is \(\sqrt{2}\).

(Source: ( रेलवे परीक्षा , 2006 ))

### Q. 32. (Pg: 2)

यदि \(\frac{\sqrt{7} - 2}{\sqrt{7} + 2} = a\sqrt{7} + b\), हो, तो a = ?

(a) \(\frac{11}{3}\)

(b) \(-\frac{4}{3}\)

(c) 3

(d) \(-\frac{4\sqrt{7}}{3}\)

Explanation: \(\frac{\sqrt{7} - 2}{\sqrt{7} + 2} = \frac{(\sqrt{7} - 2)(\sqrt{7} - 2)}{(\sqrt{7} + 2)(\sqrt{7} - 2)} = \frac{7 - 4\sqrt{7} + 4}{7 - 4} = \frac{11 - 4\sqrt{7}}{3} = \frac{11}{3} - \frac{4}{3}\sqrt{7}\). Thus, \(a = -\frac{4}{3}\) and \(b = \frac{11}{3}\). Hence the answer for 'a' is \(-\frac{4}{3}\).

(Source: ( एस०एस०सी० परीक्षा , 2007 ))