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PRACTICE QUESTION SET ON NUMERICAL  
ABILITY FOR IBPS PROBATIONARY OFFICER  
EXAM 2012

Directions-(Q. 1-5) What will come in place of question-mark (?) in the following questions?

1.  $\sqrt{5^2 \times 41 \times 5 - 17^2 - 75} = ?$

- (A) 69
- (B) 61
- (C) 71
- (D) 79
- (E) None of these

2.  $(2.25)^2 \div (3.375)^4 \times (1.5)^5 = (1.5)^{?-7}$

- (A) 6
- (B) 2
- (C) 4
- (D) 0
- (E) None of these

3.  $(\sqrt{5} - \sqrt{6})^2 + (\sqrt{3} + \sqrt{10})^2 = (?)^3 - 40$

- (A) 8
- (B) 4
- (C) 3
- (D) 6
- (E) None of these

4.  $(\sqrt{125.44 \times 85 \div 8}) - 11 = (?)^2 \div 3$

- (A)  $2\sqrt{6}$
- (B)  $\sqrt{6}$
- (C) 12
- (D) 18
- (E) 6

5.  $68\% \text{ of } \sqrt{2916} \times 25 = ? + 189$

- (A) 728
- (B) 718
- (C) 729
- (D) 739
- (E) None of these

**Directions-(Q. 6-10) What approximate value will come in place of question mark (?) in the following questions ? (You are not expected to calculate the exact value.)**

6.  $38\% \text{ of } 568 + 16\% \text{ of } 1654 - 212 = ?$

- (A) 200
- (B) 220
- (C) 270
- (D) 330
- (E) 390

7.  $8787 \div 77 \times 92 = ? \times 13$

- (A) 720
- (B) 780
- (C) 840
- (D) 810
- (E) 750

8.  $\sqrt{7778} \times \sqrt{4678} \div \sqrt{689} = ?$

- (A) 380
- (B) 410
- (C) 280
- (D) 230
- (E) 350

9.  $(56.15)^2 - (24.9)^2 - (11.9)^2 = ?$

- (A) 2390
- (B) 2460
- (C) 2550
- (D) 2680
- (E) 2240

10.  $\frac{579}{35} \div \frac{17}{2323} \times \frac{156}{249} = ?$

- (A) 1360
- (B) 1420
- (C) 1480
- (D) 1560
- (E) 1680

**Directions-(Q. 11-15) What will come in place of question mark (?) in the following number series?**

11. 24, 24, 28, 46, 94, (?)

- (A) 186
- (B) 196
- (C) 194
- (D) 184
- (E) None of these

12. 18, 29, 110, 453, 1078, (?)

- (A) 1321
- (B) 1342
- (C) 1312
- (D) 1365
- (E) None of these

13. 756, 535, 348, 195, 76, (?)

- (A) 17
- (B) - 8
- (C) 12
- (D) -9
- (E) None of these

14. 13, 22, 43, 76, 121, (?)

- (A) 175
- (B) 184
- (C) 181
- (D) 178
- (E) None of these

15.  $\frac{7}{9}, \frac{2}{3}, \frac{5}{3}, \frac{14}{9}, \frac{23}{9}, (?)$

- (A)  $\frac{23}{6}$
- (B)  $\frac{22}{9}$
- (C)  $\frac{32}{9}$
- (D)  $\frac{35}{6}$
- (E) None of these

**Directions-(Q. 16-20) In the following questions two equations numbered I and II are given. You have to solve both the equations and give answer if-**

- (A)  $x > y$
- (B)  $x \geq y$
- (C)  $x < y$
- (D)  $x \leq y$
- (E)  $x = y$  or the relationship cannot be established

16. I.  $\frac{(5)^2}{\sqrt{x}} - \frac{19}{\sqrt{x}} = (x)^{3/2}$

II.  $y^4 - \frac{(2)^{9/2}}{\sqrt{y}} = 0$

17. I.  $3x^2 + 16x + 21 = 0$

II.  $y^2 + 7y + 12 = 0$

18. I.  $\frac{7}{17} - \frac{13}{34} = \frac{\sqrt{x}}{102}$

II.  $\frac{\sqrt{y}}{12} + \frac{\sqrt{y}}{6} = \frac{1}{2\sqrt{y}}$

19. I.  $(1024)^{1/2}x + (512)^{1/3} = 232$

II.  $(729)^{1/3}y + 1163.5 = 1231$

20. I.  $5x\sqrt{169}x^2 - 585 = 0$

II.  $6x\sqrt{324}y + 324 = 0$

**21. Distance between two railways stations A and B is 1536 km. A train covers a journey between A to B at the uniform speed of 60 km / hr and returns from B to A at the uniform speed of 40 km/ hr. What is the average speed of the train during the whole journey?**

- (A) 48 km/hr
- (B) 50 km/hr
- (C) 52 km/hr
- (D) 46 km/hr
- (E) None of these

**22. What is the value of thirty eight per cent of seven-twelfth of twice the cube of fifteen?**

- (A) 1496.25
- (B) 1478.50
- (C) 1649.25
- (D) 1748.50
- (E) None of these

**23. There are four numbers A, B, C and D. Sum of A and B is 150, B and C is 185, C and D is 230. B is 25 less than C. What is the total sum of A, B and D together?**

- (A) 270
- (B) 285
- (C) 260
- (D) 275
- (E) None of these

**24. A man divided Rs. 9,600 among his four sons, three daughters and wife. Each daughter got twice the amount given to each son. His wife got Rs. 300 less than amount given to each son. How much total amount did all the three daughters get?**

- (A) Rs. 4,500
- (B) Rs. 5,400
- (C) Rs. 2,700
- (D) Cannot be determined
- (E) None of these

**25. What will be the least number which when divided by 5, 6, 7 and 8 leaves remainder 3 but when divided 9 leaves no remainder?**

- (A) 1674
- (B) 1692
- (C) 1683
- (D) Cannot be determined
- (E) None of these

**Directions (Q.26 to 40) What should come in place of the question mark (?) in the following questions?**

**26.  $5 \times ? = 8042 \div 4$**

- (A) 396.1
- (B) 6433.6
- (C) 10052.5

(D) 402.1

(E) None of these

**27.  $206 \times 71 - 12080 = ?$**

(A) 2546

(B) 2654

(C) 2564

(D) 2645

(E) None of these

**28.  $\frac{3}{7} \div \frac{9}{14} \times \frac{6}{11} = ?$**

(A)  $\frac{5}{22}$

(B)  $\frac{9}{11}$

(C)  $\frac{4}{11}$

(D)  $\frac{7}{22}$

(E) None of these

**29.  $\sqrt{?} + 22 = \sqrt{2601}$**

(A)  $\sqrt{841}$

(B)  $(841)^2$

(C)  $\sqrt{22}$

(D) 22

(E) None of these

**30.  $2\frac{4}{5} - 1\frac{3}{8} + 3\frac{1}{2} = ?$**

(A)  $5\frac{17}{40}$

(B)  $4\frac{37}{40}$



(C)  $2\frac{27}{40}$

(D)  $3\frac{11}{40}$

(E) None of these

**31. 14% of 905 + ? = 287**

(A) 158.7

(B) 160.3

(C) 153.1

(D) 162.5

(E) None of these

**32. 2073.5 ÷ (22 x 14.5) = ?**

(A) 5.5

(B) 6.5

(C) 4.5

(D) 3.5

(E) None of these

**33. 6824 + 7864 = ? x 40**

(A) 376.4

(B) 359.2

(C) 363.4

(D) 367.2

(E) None of these

**34. 10000 ÷ 100 ÷ 10 = ?**

(A) 1

(B) 0.1

(C) 1000

(D) 100

(E) None of these

**35.  $(49)^2 \times (7)^8 \div (343)^3 = (7)^?$**

(A) 3

(B) 13

(C) 7

(D) 9

(E) None of these

**36.  $7825 - 9236 + 5234 = ? \times 25$**

(A) 152.92

(B) 152.29

(C) 125.29

(D) 125.92

(E) None of these

**37. 58% of 450 - ? % of 250 = 181**

(A) 44

(B) 40

(C) 32

(D) 38

(E) None of these

**38. 17.7% of 286 = ?**

(A) 62.262

(B) 48.266

(C) 64.626

(D) 50.622

(E) None of these

39.  $13.5 \times 16.3 \times 12.8 = ?$

- (A) 2861.46
- (B) 2168.46
- (C) 2816.64
- (D) 2186.64
- (E) None of these

40.  $525.25 + 52.52 + 5.2 = ?$

- (A) 578.79
- (B) 528.97
- (C) 588.97
- (D) 582.79
- (E) None of these

**Directions (Q.41 to 45) what approximate value should come in place of the questions mark (?) in the following questions? (Note: You are not expected to calculate the exact value.)**

41.  $(12.999)^3 = ?$

- (A) 1800
- (B) 1650
- (C) 2000
- (D) 2500
- (E) 2200

42.  $50550 \div 50 \div 5 = ?$

- (A) 350
- (B) 150
- (C) 300
- (D) 250
- (E) 200

43.  $49.0003 \div 74.999 = ?$

- (A) 0.05
- (B) 0.2
- (C) 1
- (D) 0.7
- (E) 2

44.  $23.003 \times 22.998 + 100.010 = ?$

- (A) 630
- (B) 550
- (C) 700
- (D) 720
- (E) 510

45.  $125.009 + 69.999 + 104.989 = ?$

- (A) 420
- (B) 300
- (C) 285
- (D) 415
- (E) 325

**Directions (Q.46 to 50) What should come in place of the question mark (?) in the following number series?**

46. 2 14 84 420 1680 5040 ?

- (A) 9940
- (B) 7680
- (C) 10080
- (D) 5040
- (E) None of these

47. 3 5 8 13 21 34 ?

- (A) 72
- (B) 47
- (C) 55
- (D) 64
- (E) None of these

48. 1 2 6 21 ? 445 2676

- (A) 88
- (B) 67
- (C) 62
- (D) 84
- (E) None of these

49. 27 125 ? 729 1331 2197 3375

- (A) 512
- (B) 447
- (C) 216
- (D) 343
- (E) None of these

50. 10400 2600 650 ? 40.625 1 0.15625 2.5390625

- (A) 185.5
- (B) 162.5
- (C) 164.75
- (D) 156.25
- (E) None of these

**Directions (Q.51 to 55):** What should come in place of question mark (?) in the following questions?

51.  $[? - 45] = 40$

- (A) 85 or -85
- (B) 85 or 5
- (C) 5 or - 5
- (D) 40 or 5
- (E) None of these

52.  $[(3^2)^6]^4 = 9^?$

- (A) 28
- (B) 16
- (C) 12
- (D) 24
- (E) None of these

53.  $\sqrt{289} = ?$

- (A)  $(\sqrt{17})^2$
- (B) (-8 -9)
- (C) -17
- (D)  $\pm(\frac{153}{9})$
- (E) None of these

54.  $?% \text{ of } (4)^? = 51.2$

- (A) 15
- (B) 8
- (C) 5
- (D) 10
- (E) None of these

55.  ${}^4\sqrt{1296} = ?$

- (A) 8

- (B) 36
- (C) 12
- (D) 6
- (E) None of these

**Directions (Q.56 to 60): In the following number series only one number is wrong. Find out the wrong number.**

**56. 4 3 4.5 8.5 20 53 162.5**

- (A) 3
- (B) 4.5
- (C) 8.5
- (D) 20
- (E) 53

**57. 12000 2395 472 89.8 12.96 -2.408 -5.4816**

- (A) -5.4816
- (B) 472
- (C) 12.96
- (D) -2.408
- (E) 2395

**58. 1 8 28 99 412 2075 12460**

- (A) 28
- (B) 99
- (C) 412
- (D) 2075
- (E) 12460

**59. 144215 540 1890 8505 46777.5 304053.75**

- (A) 215

- (B) 540
- (C) 1890
- (D) 8505
- (E) 46777.5

**60. 22221879 1663 1538 14741447 1440**

- (A) 1879
- (B) 1538
- (C) 1474
- (D) 1447
- (E) 1440

**61. In a college, the ratio of boys to girls is 31 : 23 respectively. When 75 more girls join the college, this ratio becomes 124 : 107. How many more girls should join the college to make the number of boys and girls equal?**

- (A) 75
- (B) 90
- (C) 60
- (D) 85
- (E) None of these

**62. The compound interest accrued on an amount at the end of two years @ 12 p.c.p.a is Rs. 2,862. What is the amount?**

- (A) Rs. 11,250
- (B) Rs. 12,200
- (C) Rs. 13,500
- (D) Rs. 10,000
- (E) None of these

**63. A 280 metres long train, travelling at a uniform speed, crosses a platform in 60 seconds and a man standing on the platform in 20 seconds. What is the length of the platform?**



- (A) 640 metres
- (B) 420 metres
- (C) 280 metres
- (D) Cannot be determined
- (E) None of these

**64. A triangle has two of its angles in the ratio of 1 : 2. If the measure of one of its angles is 30 degrees, what is the measure of the largest angle of the triangle in degrees ?**

- (A) 100 91
- (B) 90
- (C) 135 123
- (D) Cannot be determined
- (E) None of these

**65. In how many different ways can the numbers '256974' be arranged, using each digit only once in each arrangement, such that the digits 6 and 5 are at the extreme ends in each arrangement ?**

- (A) 48
- (B) 720
- (C) 36
- (D) 360
- (E) None of these

**Directions (Q.66 to 70): Study the given information carefully and answer the questions that follow: An urn contains 3 red, 6 blue, 2 green and 4 yellow marbles.**

**66. If two marbles are picked at random, what is the probability that both are green?**

- (A)  $\frac{2}{15}$
- (B)  $\frac{1}{15}$
- (C)  $\frac{2}{7}$
- (D) 1

(E) None of these

**67. If three marbles are picked at random, what is the probability that two are blue and one is yellow?**

(A)  $\frac{2}{15}$

(B)  $\frac{6}{91}$

(C)  $\frac{12}{91}$

(D)  $\frac{3}{15}$

(E) None of these

**68. If four marbles are picked at random, what is the probability that at least one is yellow?**

(A)  $\frac{6}{2}$

(B)  $\frac{69}{91}$

(C)  $\frac{125}{143}$

(D)  $\frac{1}{4}$

(E) None of these

**69. If two marbles are picked at random, what is the probability that either both are red or both are green?**

(A)  $\frac{3}{5}$

(B)  $\frac{4}{105}$

(C)  $\frac{2}{7}$

(D)  $\frac{5}{91}$

(E) None of these

**70. If four marbles are picked at random, what is the probability that one is green, two are blue and one is red?**

(A)  $\frac{4}{15}$

(B)  $\frac{17}{280}$

(C)  $\frac{6}{91}$

(D)  $\frac{11}{15}$

(E) None of these