EduSahara™ Assignment

Name : Logarithms

Chapter : Real Numbers

Grade : SSC Grade X

1. $log_{4096} 64 =$

   (i) 2.5 (ii) 7.5 (iii) 0.5 (iv) 1.5 (v) 8.5

2. $log_{729} 81 =$

   (i) 1.6667 (ii) 2.6667 (iii) 7.6667 (iv) 8.6667 (v) 0.6667

3. $log_{25} 125 =$

   (i) 9.5 (ii) 0.5 (iii) 1.5 (iv) 3.5 (v) 2.5

4. $log_{49} 2401 =$

   (i) 3 (ii) 2 (iii) 0 (iv) 4 (v) 1

5. $log_{6561} 81 =$

   (i) 0.5 (ii) 2.5 (iii) 1.5 (iv) 7.5 (v) 8.5

6. $log_{256} 16 =$

   (i) 0.5 (ii) 1.5 (iii) 2.5 (iv) 8.5 (v) 7.5

7. $log_{100} 1000 =$

   (i) 1.5 (ii) 3.5 (iii) 0.5 (iv) 9.5 (v) 2.5

8. $log_{9} 27 =$

   (i) 2.5 (ii) 3.5 (iii) 0.5 (iv) 9.5 (v) 1.5

9. $log_{1000} 10000 =$

   (i) 9.3333 (ii) 3.3333 (iii) 1.3333 (iv) 0.3333 (v) 2.3333

10. $log_{64} 16 =$

    (i) 8.6667 (ii) 2.6667 (iii) 7.6667 (iv) 0.6667 (v) 1.6667

11. $log_{4096} 32768 =$

    (i) 0.25 (ii) 3.25 (iii) 1.25 (iv) 2.25 (v) 9.25

12. $log_{216} 36 =$

    (i) 2.6667 (ii) 0.6667 (iii) 1.6667 (iv) 8.6667 (v) 7.6667

13. The base of $log_7 49$ is

(i) 6 (ii) 49 (iii) 9 (iv) 4 (v) 7

14. The base of $log_{\frac{7}{8}}$ is

(i) 8 (ii) $\frac{7}{8}$ (iii) 7 (iv) 10 (v) 5

15. The base of $log_{6.00} 28.0000$ is

(i) 6 (ii) 5 (iii) 3 (iv) 9 (v) 28

16. The base of $log_5 7^4$ is

(i) 4 (ii) 7^4 (iii) 8 (iv) 2 (v) 5

17. The base of $log_{\frac{1}{5}} 90$ is

(i) $\frac{1}{3}$ (ii) $\frac{3}{5}$ (iii) $\frac{1}{5}$ (iv) 90 (v) $(\frac{-1}{5})$

18. The base of $log_{\frac{8}{9}} \frac{7}{11}$ is

(i) $\frac{7}{11}$ (ii) $\frac{8}{9}$ (iii) $\frac{8}{7}$ (iv) $\frac{10}{9}$ (v) $\frac{2}{3}$

19. The base of $log_{\frac{1}{2}} 14^4$ is

(i) 14^4 (ii) $(\frac{-1}{2})$ (iii) $\frac{3}{2}$ (iv) 1 (v) $\frac{1}{2}$

20. $log 5 + log 8 =$

(i) $log 40^2$ (ii) $log 40$ (iii) $log 42$ (iv) $log 39$ (v) $log 38$

21. $log 86 + log 63 =$

(i) $log 5420$ (ii) $log 5418$ (iii) $log 5418^2$ (iv) $log 5415$ (v) $log 5417$

22. $log \frac{3}{8} + log \frac{5}{7} =$

(i) $log \frac{17}{56}$ (ii) $log \frac{15}{56}$ (iii) $log \left(\frac{15}{56}\right)^2$ (iv) $log \frac{5}{18}$ (v) $log \frac{13}{56}$

23. $log\ \frac{6}{7} + log\ \frac{7}{53} =$

(i) $log\ \frac{8}{53}$ (ii) $log\ \frac{4}{53}$ (iii) $log\left(\frac{6}{53}\right)^{2}$ (iv) $log\ \frac{6}{53}$ (v) $log\ \frac{2}{17}$

24. $log\ 6^{9} + log\ 6^{9} =$

(i) $log\ 6^{17}$ (ii) $log\ 9^{18}$ (iii) $log\ 4^{18}$ (iv) $log\ 6^{18}$ (v) $log\ 6^{19}$

25. $log\ 93^{5} + log\ 93^{9} =$

(i) $log\ 96^{14}$ (ii) $log\ 90^{14}$ (iii) $log\ 93^{13}$ (iv) $log\ 93^{15}$ (v) $log\ 93^{14}$

26. $log\ 2.0000 + log\ 10.0000 =$

(i) $log\ 21.0000$ (ii) $log\ 22.0000$ (iii) $log\ 18.0000$ (iv) $log\ 19.0000$ (v) $log\ 20.0000$

27. $log\ 76.0000 + log\ 15.0000 =$

(i) $log\ 1142.0000$ (ii) $log\ 1140.0000$ (iii) $log\ 1138.0000$ (iv) $log\ 1139.0000$ (v) $log\ 1141.0000$

28. $log\ 1 + log\ 3 =$

(i) $log\ 3^{2}$ (ii) $log\ 2$ (iii) $log\ 3$ (iv) $log\ 5$ (v) $log\ 1$

29. $log\ 90 + log\ 1 =$

(i) $log\ 93$ (ii) $log\ 90$ (iii) $log\ 88$ (iv) $log\ 89$ (v) $log\ 90^{2}$

30. $log\ \frac{11}{43} + log\ \frac{27}{56} =$

(i) $log\ \frac{295}{2408}$ (ii) $log\left(\frac{297}{2408}\right)^{2}$ (iii) $log\ \frac{297}{2408}$ (iv) $log\ \frac{99}{802}$ (v) $log\ \frac{299}{2408}$

31. $log\ 82^{6} + log\ 82^{2} =$

(i) $log\ 84^{8}$ (ii) $log\ 80^{8}$ (iii) $log\ 82^{7}$ (iv) $log\ 82^{8}$ (v) $log\ 82^{9}$

32. $log\ 62.9100 + log\ 19.4400 =$

(i) $log\ 1223.9705$ (ii) $log\ 1224.9705$ (iii) $log\ 1220.9705$ (iv) $log\ 1221.9705$ (v) $log\ 1222.9705$

33. $log\ 65 + log\ 63 =$

(i) $log\ 4098$ (ii) $log\ 4095^{2}$ (iii) $log\ 4094$ (iv) $log\ 4092$ (v) $log\ 4095$

34. $log\ \frac{18}{20} + log\ \frac{68}{95} =$

(i) $log\ \frac{306}{475}$ (ii) $log\ \frac{16}{25}$ (iii) $log\left(\frac{306}{475}\right)^2$ (iv) $log\ \frac{306}{473}$ (v) $log\ \frac{308}{475}$

35. $log\, 57^7 + log\, 57^7 =$

(i) $log\, 57^{15}$ (ii) $log\, 57^{13}$ (iii) $log\, 60^{14}$ (iv) $log\, 54^{14}$ (v) $log\, 57^{14}$

36. $log\, 67.3700 + log\, 66.8100 =$

(i) $log\, 4498.9897$ (ii) $log\, 4502.9897$ (iii) $log\, 4500.9897$ (iv) $log\, 4501.9897$ (v) $log\, 4499.9897$

37. $log\, 34.0000 + log\, 89.0000 =$

(i) $log\, 3026.0000$ (ii) $log\, 3027.0000$ (iii) $log\, 3024.0000$ (iv) $log\, 3025.0000$ (v) $log\, 3028.0000$

38. $log\, 0.0769 + log\, 0.3529 =$

(i) $log\, 0.0271$ (ii) $log\, 7.0271$ (iii) $log\, 1.0271$ (iv) $log\, 8.0271$ (v) $log\, 2.0271$

39. $log\, 65^8 + log\, 65^2 =$

(i) $log\, 63^{10}$ (ii) $log\, 65^9$ (iii) $log\, 68^{10}$ (iv) $log\, 65^{10}$ (v) $log\, 65^{11}$

40. $log\, 18.7900 + log\, 53.0600 =$

(i) $log\, 998.9974$ (ii) $log\, 994.9974$ (iii) $log\, 995.9974$ (iv) $log\, 996.9974$ (v) $log\, 997.9974$

41. $log\, 28 - log\, 18 =$

(i) $log\ \frac{4}{3}$ (ii) $log\left(\frac{14}{9}\right)^2$ (iii) $log\ \frac{14}{9}$ (iv) $log\ \frac{16}{9}$ (v) $log\, 2$

42. $log\ \frac{20}{73} - log\ \frac{12}{43} =$

(i) $log\ \frac{217}{219}$ (ii) $log\ \frac{215}{217}$ (iii) $log\left(\frac{215}{219}\right)^2$ (iv) $log\ \frac{215}{219}$ (v) $log\ \frac{71}{73}$

43. $log\, 7^4 - log\, 7^2 =$

(i) $log\, 7$ (ii) $log\, 7^2$ (iii) $log\, 4^2$ (iv) $log\, 7^3$ (v) $log\, 9^2$

44. $log\, 40.0000 - log\, 16.0000 =$

(i) $log\, 2.5000$ (ii) $log\, 3.5000$ (iii) $log\, 1.5000$ (iv) $log\, 0.5000$ (v) $log\, 4.5000$

45. $log\,79 - log\,20 =$

(i) $log\,\frac{79}{18}$ (ii) $log\left(\frac{79}{20}\right)^2$ (iii) $log\,\frac{77}{20}$ (iv) $log\,\frac{79}{20}$ (v) $log\,\frac{81}{20}$

46. $log\,\frac{23}{53} - log\,\frac{4}{5} =$

(i) $log\,\frac{113}{212}$ (ii) $log\,\frac{117}{212}$ (iii) $log\left(\frac{115}{212}\right)^2$ (iv) $log\,\frac{115}{212}$ (v) $log\,\frac{23}{42}$

47. $log\,28^4 - log\,28^2 =$

(i) $log\,28$ (ii) $log\,28^2$ (iii) $log\,28^3$ (iv) $log\,31^2$ (v) $log\,25^2$

48. $log\,48.4000 - log\,90.6500 =$

(i) $log\,7.5339$ (ii) $log\,2.5339$ (iii) $log\,1.5339$ (iv) $log\,0.5339$ (v) $log\,8.5339$

49. $log\,83 - log\,55 =$

(i) $log\,\frac{83}{53}$ (ii) $log\left(\frac{83}{55}\right)^2$ (iii) $log\,\frac{81}{55}$ (iv) $log\,\frac{83}{55}$ (v) $log\,\frac{17}{11}$

50. $log\,\frac{12}{22} - log\,\frac{22}{43} =$

(i) $log\,\frac{129}{119}$ (ii) $log\,\frac{131}{121}$ (iii) $log\left(\frac{129}{121}\right)^2$ (iv) $log\,\frac{129}{121}$ (v) $log\,\frac{127}{121}$

51. $log\,97^3 - log\,97^5 =$

(i) $log\,97^{-2}$ (ii) $log\,100^{-2}$ (iii) $log\,97^{-1}$ (iv) $log\,97^{-3}$ (v) $log\,94^{-2}$

52. $log\,69.8300 - log\,51.7400 =$

(i) $log\,1.3496$ (ii) $log\,0.3496$ (iii) $log\,3.3496$ (iv) $log\,2.3496$ (v) $log\,9.3496$

53. $log\,61.0000 - log\,4.0000 =$

(i) $log\,14.2500$ (ii) $log\,17.2500$ (iii) $log\,13.2500$ (iv) $log\,15.2500$ (v) $log\,16.2500$

54. $log\,0.2500 - log\,0.7283 =$

(i) $log\,7.3433$ (ii) $log\,2.3433$ (iii) $log\,8.3433$ (iv) $log\,0.3433$ (v) $log\,1.3433$

55. $log\,79^5 - log\,79^3 =$

(i) $log\,77^2$ (ii) $log\,81^2$ (iii) $log\,79^3$ (iv) $log\,79$ (v) $log\,79^2$

56. $log\,88.7000 - log\,7.1900 =$

(i) $log\,11.3366$ (ii) $log\,13.3366$ (iii) $log\,10.3366$ (iv) $log\,14.3366$ (v) $log\,12.3366$

57. The logarithmic notation of $9^4 = 6561$ is

(i) $log_7 6558 = 4$ (ii) $log_9 6561^2 = 4$ (iii) $log_9 6560 = 4$ (iv) $log_9 6561 = 4$ (v) $log_9 6564 = 4$

58. The base exponent form of $log_{10} 10000 = 4$ is

(i) $10^5 = 10000$ (ii) $10^3 = 10000$ (iii) $4^{10} = 10000$ (iv) $13^4 = 10000$ (v) $10^4 = 10000$

59. $log_9 63^6 =$

(i) $6\,log_9 63$ (ii) $log_7 60^6$ (iii) $6\,log_9 66$ (iv) $5\,log_9 63$ (v) $7\,log_9 63$

60. $log_{\frac{1}{3}} 54^2 =$

(i) $2\,log_{\frac{1}{3}} 54$ (ii) $log_{(\frac{-1}{3})} 52^2$ (iii) $2\,log_{\frac{1}{3}} 57$ (iv) $3\,log_{\frac{1}{3}} 54$ (v) $log_{\frac{1}{3}} 54$

61. $log_{2^2} 25^9 =$

(i) $log_{2^{-1}} 23^9$ (ii) $8\,log_{2^2} 25$ (iii) $9\,log_{2^2} 28$ (iv) $9\,log_{2^2} 25$ (v) $10\,log_{2^2} 25$

62. $log_{\frac{203}{50}} 93^{10} =$

(i) $10\,log_{\frac{203}{50}} 96$ (ii) $10\,log_{\frac{203}{50}} 93$ (iii) $log_{\frac{201}{50}} 91^{10}$ (iv) $9\,log_{\frac{203}{50}} 93$ (v) $11\,log_{\frac{203}{50}} 93$

63. $log_{10} \frac{6}{5} =$

(i) $log\,2 + log\,3 - log\,5$ (ii) $log\,2 + log\,3 - log\,7$ (iii) $2\,log\,2 + log\,3 - log\,5$ (iv) $log\,2 + log\,2 - log\,5$

(v) $log\,2 + log\,3 - log\,3$

64. $log_{10} \frac{20}{7} =$

(i) $log\,2 + log\,5 - log\,7$ (ii) $2\,log\,2 + log\,5 - log\,7$ (iii) $2\,log\,2 + log\,5 - log\,9$ (iv) $2\,log\,2 + log\,5 - log\,4$

(v) $3\,log\,2 + log\,5 - log\,7$

65. $log_{10} 120 =$

(i) $3\,log\,2 + log\,3 + log\,4$ (ii) $4\,log\,2 + log\,3 + log\,5$ (iii) $3\,log\,2 + log\,1 + log\,5$ (iv) $3\,log\,2 + log\,3 + log\,7$

(v) $3\,log\,2 + log\,3 + log\,5$

66. $log_{10} 336 =$

(i) $4\,log\,2 + log\,1 + log\,7$ (ii) $4\,log\,2 + log\,3 + log\,9$ (iii) $4\,log\,2 + log\,3 + log\,7$ (iv) $3\,log\,2 + log\,3 + log\,7$

(v) $5\,log\,2 + log\,3 + log\,7$

67. $log\,1387 =$

(i) $19\,log\,73$ (ii) $log\,73 \times log\,19$ (iii) $log\,73 \div log\,19$ (iv) $log\,73 + log\,19$ (v) $log\,73 - log\,19$

68. $log\,\frac{26}{10} =$

(i) $log\,26 + log\,10$ (ii) $10\,log\,26$ (iii) $log\,26 - log\,10$ (iv) $log\,26 \times log\,10$ (v) $log\,26 \div log\,10$

69. $log_{10}\,\frac{89}{90} =$

(i) $log\,\frac{89}{90} \div log\,10$ (ii) $log\,10 \div log\,\frac{89}{90}$ (iii) $log\,\frac{89}{90} - log\,10$ (iv) $log\,\frac{89}{90} + log\,10$ (v) $log\,\frac{89}{90} \times log\,10$

70. $log_4 100 =$

(i) $log\,4 \div log\,100$ (ii) $log\,100 - log\,4$ (iii) $log\,100 \times log\,4$ (iv) $log\,100 \div log\,4$ (v) $log\,100 + log\,4$

71. $log_{9.06} 23.3100 =$

(i) $log\,23.3100 - log\,9.06$ (ii) $log\,23.3100 \div log\,9.06$ (iii) $log\,9.06 \div log\,23.3100$ (iv) $log\,23.3100 \times log\,9.06$

(v) $log\,23.3100 + log\,9.06$

72. $log_{\frac{2}{5}}\,\frac{29}{74} =$

(i) $log\,\frac{29}{74} \div log\,\frac{2}{5}$ (ii) $log\,\frac{29}{74} \times log\,\frac{2}{5}$ (iii) $log\,\frac{29}{74} + log\,\frac{2}{5}$ (iv) $log\,\frac{2}{5} \div log\,\frac{29}{74}$ (v) $log\,\frac{29}{74} - log\,\frac{2}{5}$

73. $log_{10^7} 62^7 =$

(i) $7\,log\,62 \times 7\,log\,10$ (ii) $7\,log\,62 \div 7\,log\,10$ (iii) $7\,log\,10 \div 7\,log\,62$ (iv) $7\,log\,62 + 7\,log\,10$

(v) $7\,log\,62 - 7\,log\,10$

74. $log_{8^3} 6^{10} =$

(i) $\frac{10}{3}\,log_8 6$ (ii) $\frac{20}{3}\,log_8 6$ (iii) $\frac{10}{3}\,log_8 5$ (iv) $\frac{10}{3}\,log_8 8$ (v) $\frac{10}{3}\,log_5 4$

75. $log_3 72 =$

(i) $log_3 63 \div log_{72} 63$ (ii) $log_3 63 + log_{72} 63$ (iii) $log_3 63 - log_{72} 63$ (iv) $log_3 63 \times log_{72} 63$ (v) $log_{72} 63 \div log_3 63$

76. $log_5 7 =$

(i) $log_9 7 - log_5 9$ (ii) $log_9 7 \times log_5 9$ (iii) $log_9 7 + log_5 9$ (iv) $log_5 9 \div log_9 7$ (v) $log_9 7 \div log_5 9$

77. $log_{16^{18}} 16^{46} =$

(i) 1.5556 (ii) 3.5556 (iii) 2.5556 (iv) 0.5556 (v) 4.5556

Assignment Key

1) (iii)	2) (v)	3) (iii)	4) (ii)	5) (i)	6) (i)
7) (i)	8) (v)	9) (iii)	10) (iv)	11) (iii)	12) (ii)
13) (v)	14) (i)	15) (i)	16) (v)	17) (iii)	18) (ii)
19) (v)	20) (ii)	21) (ii)	22) (ii)	23) (iv)	24) (iv)
25) (v)	26) (v)	27) (ii)	28) (iii)	29) (ii)	30) (iii)
31) (iv)	32) (v)	33) (v)	34) (i)	35) (v)	36) (iii)
37) (i)	38) (i)	39) (iv)	40) (iv)	41) (iii)	42) (iv)
43) (ii)	44) (i)	45) (iv)	46) (iv)	47) (ii)	48) (iv)
49) (iv)	50) (iv)	51) (i)	52) (i)	53) (iv)	54) (iv)
55) (v)	56) (v)	57) (iv)	58) (v)	59) (i)	60) (i)
61) (iv)	62) (ii)	63) (i)	64) (ii)	65) (v)	66) (iii)
67) (iv)	68) (iii)	69) (i)	70) (iv)	71) (ii)	72) (i)
73) (ii)	74) (i)	75) (i)	76) (ii)	77) (iii)	