1. $(17)^{3.5} \times (17)^{?} = 17^{8}$
A. 2.29 **B**. 2.75 **C**. 4.25 **D**. 4.5

2. Given that $100^{.48} = x$, $100^{.70} = y$ and $x^{z} = y^{2}$, then the value of z is close to:
A. 1.45 **B**. 1.88 **C**. 2.9 **D**. 3.7

3. If $5^{a} = 3125$, then the value of $5^{(a - 3)}$ is:
A. 25 **B**. 125 **C**. 625 **D**. 1625

4. If $3^{(x - y)} = 27$ and $3^{(x + y)} = 243$, then x is equal to:
A. 0 **B**. 2 **C**. 4 **D**. 6

5. $(256)^{0.16} \times (256)^{0.09} = ?$
A. 4 **B**. 16 **C**. 64 **D**. 256.25

6. The value of $[(10)^{150} \div (10)^{146}]$
A. 1000 **B.** 10000 **C**. 100000 **D**. 106

7. $(25)^{7.5} \times (5)^{2.5} \div (125)^{1.5} = 5?$
A.8.5 **B**.13 **C**.16 **D**.17.5
E. None of these

8. $(0.04)^{-1.5} = ?$
A. 25 **B**. 125 **C**. 250 **D**. 625

9. If m and n are whole numbers such that $m^{n} = 121$, the value of $(m - 1)^{n+1}$ is:
A. 1 **B**. 10 **C**. 121 **D**. 1000

10. Which of the following statements is not correct?
A. $\log_{10}10 = 1$
B. $\log (2 + 3) = \log (2 \times 3)$
C. $\log_{10}1 = 0$
D. $\log (1 + 2 + 3) = \log 1 + \log 2 + \log 3$

11. If $\log 2 = 0.3010$ and $\log 3 = 0.4771$, the value of $\log_{5}512$ is:
A. 2.870 **B**. 2.967 **C**. 3.876 **D**. 3.912

12. If $\log 27 = 1.431$, then the value of $\log 9$ is:
A. 0.934 **B**. 0.945 **C**. 0.954 **D**. 0.958

13. If $\log_{10} 2 = 0.3010$, then $\log_{2}10$ is equal to:
A. 699/301 **B**.1000/301 **C**. 0.3010 **D**. 0.6990

14. If $\log_{10} 5 + \log_{10} (5x + 1) = \log_{10}(x + 5) + 1$, then x is equal to:
A. 1 **B**. 3 **C**. 5 **D**. 10

15. If $\log_{x} y = 100$ and $\log_{2}x = 10$, then the value of y is:
A. 210 **B**. 2100 **C**. 21000 **D**. 210000

16. The value of $\log_{2}16$ is:
A.1/8 **B**. 4 **C**. 8 **D**. 16