

D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS)
APTITUDE TEST

LOGARITHMS – TEST 36

1. $\log_x y = 100$ and $\log_x 2 = 10$, then the value of y is

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|---------------|----------------|
| a) 2^{10} | b) 2^{100} |
| c) 2^{1000} | d) 2^{10000} |

2. The characteristic of the logarithm 332.6 is

- | | |
|------|------|
| a) 3 | b) 4 |
| c) 2 | d) 1 |

3. If $\log_4 \log_2 \log_3 (2x \diamond \frac{1}{2})$, find x =

- | | |
|-------|-------|
| 1) | |
| a) 82 | b) 41 |
| c) 51 | d) 62 |

4.

If $\log_{ab} = \frac{1}{2}$, $\log_{bc} = \frac{1}{3}$ and $\log_{ca} = \frac{k}{5}$, the value of k is

- | | |
|-------|-------|
| a) 25 | b) 35 |
| c) 30 | d) 20 |

5. If $\log 2 = 0.3010$ and $\log 3 = 0.4771$, the value of $\log_5 512$ is:

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|----------|----------|
| a) 2.870 | b) 2.967 |
| c) 3.876 | d) 3.912 |

6. If $\log 27 = 1.431$, then the value of $\log 9$ is:

- | | |
|----------|----------|
| a) 0.934 | b) 0.945 |
| c) 0.954 | d) 0.958 |

7.

If $\log_{10} 7 = a$, then $\log_{10} \left. \frac{1}{70} \right\}$ is equal to:

- | | |
|---------------|-------------------|
| a) $-(1 + a)$ | b) $(1 + a)^{-1}$ |
| c) $a/10$ | d) $1/10a$ |

8. If $\log_{10} 2 = 0.3010$, the value of $\log_{10} 80$ is:

- | | |
|-----------|------------------|
| a) 1.6020 | b) 1.9030 |
| c) 3.9030 | d) None of these |

9. 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 |

10. If $\log 2 = 0.30103$, the number of digits in 2^{64} is:

- | | |
|-------|-------|
| a) 18 | b) 19 |
| c) 20 | d) 21 |

11. The value of $\log_2 16$ is:

- | | |
|----------|-------|
| a) $1/8$ | b) 4 |
| c) 8 | d) 16 |

12. What is the value of $\log(ab^2) \diamond \log(ac) + \log(abc^4) \diamond 3\log(bc)$?

- | | |
|------|------|
| a) 2 | b) 0 |
|------|------|

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c) $X^2 = 100Y^5$

d) $X^2 = Y^5 + 1000$

25. If $\log_7 2 = m$, then $\log_{49} 28$ is equal to

a) $2(1 + 2m)$ b) $(1 + 2m)/2$

c) $2/(1 + 2m)$ d) $1 + m$