**Chapter 7&8 TEST – Part I**

**CALCULATOR Part**

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

**\_\_\_\_ 1.** Evaluate the expression  to the nearest hundredth.

|  |  |  |  |
| --- | --- | --- | --- |
| **A.** | 7.76 | **C.** | 10.82 |
| **B.** | 9.76 | **D.** | 7.01 |

**\_\_\_\_ 2.** Another way of writing $3^{4}=81$ is

|  |  |  |  |
| --- | --- | --- | --- |
| 1. $log\_{3}4=81$
 |  | 1. $log\_{81}3=4$
 | 4 |
| 1. $log\_{3}81=4$
 |  | 1. $log\_{4}81=3$
 | 3 |

**\_\_\_\_ 3.** Which of the following represents ?

|  |  |  |  |
| --- | --- | --- | --- |
| **A.** |  | **C.** |  |
| **B.** |  | **D.** |  |

**\_\_\_\_ 4.** Which of the following is equivalent to the expression ?

|  |  |  |  |
| --- | --- | --- | --- |
| **A.** |  | **C.** |  |
| **B.** |  | **D.** |  |

**\_\_\_\_ 5.** If , , and , an algebraic expression in terms of *s*, *v*, and *z* for  is

|  |  |  |  |
| --- | --- | --- | --- |
| **A.** | *v*  2*s* + 2*z* | **C.** | *v*  2(*s*  *z*) |
| **B.** | *v*  2(*s* + *z*) | **D.** | *v*  2*s* + *z* |

**\_\_\_\_ 6.** Which of the following is equivalent to the expression ?

|  |  |  |  |
| --- | --- | --- | --- |
| **A.** |   | **C.** |  |
| **B.** |  | **D.** |  |

**Chapter 7&8 TEST – Part II
NON CALCULATOR Part**

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

**\_\_\_\_ 7.** Which graph represents the inverse of ?

|  |  |  |  |
| --- | --- | --- | --- |
| **A.** |  | **C.** |  |
| **B.** |  | **D.** |  |

**\_\_\_\_ 8.** The range of the function  is

|  |  |  |  |
| --- | --- | --- | --- |
| **A.** |  | **C.** |  |
| **B.** |  | **D.** |  |

**\_\_\_\_ 9.** Which graph represents the function ?

|  |  |  |  |
| --- | --- | --- | --- |
| **A.** |  | **C.** |  |
| **B.** |  | **D.** |  |

**\_\_\_\_ 10.** The domain of the function  is

|  |  |  |  |
| --- | --- | --- | --- |
| **A.** |  | **C.** |  |
| **B.** |  | **D.** |  |

**\_\_\_\_ 11.** What is the equation for the asymptote of the function ?

|  |  |  |  |
| --- | --- | --- | --- |
| **A.** | *x* = 2 | **C.** | *x* = –5 |
| **B.** | *x* = –3 | **D.** | *x* = –2 |

**\_\_\_\_ 12.** Which choice best describes the function ?

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | both increasing and decreasing | **C** | increasing |
| **B** | decreasing | **D** | neither increasing nor decreasing |

**\_\_\_\_ 13.** Which exponential equation matches the graph shown?

 

|  |  |  |  |
| --- | --- | --- | --- |
| **A** |  | **C** |  |
| **B** |  | **D** |  |

**\_\_\_\_ 14.** Which graph represents the function ?

|  |  |  |  |
| --- | --- | --- | --- |
| **A** |  | **C** |  |
| **B** |  | **D** |  |

**Short Answer**

 **15.** Given , find the value of .

 **16.** Evaluate $log\_{2}64+log\_{3}27×log\_{2}\frac{1}{16}$ .

 **17.** Given  and , find the value of .

 **18.** For each function, identify the

**i)** base of the exponential function

**ii)** domain and range

**iii)** the number of *x*-intercepts and the value of the *y*-intercept.

**iv)** is it increasing/decreasing?

**v)** equation of the asymptote

**a)** 

**b)** $g\left(x\right)=-8^{x+1}+4$